1993

Consulting services manual : AICPA integrated practice system

American Institute of Certified Public Accountants. Management Consulting Services Division

AICPA

Consulting Services Manual

INTEGRATED PRACTICE SYSTEM

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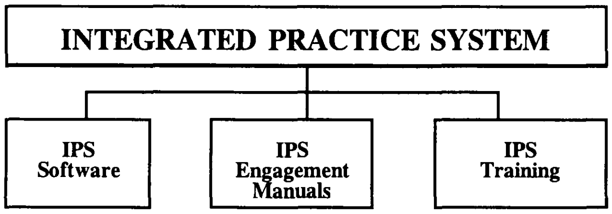
The AICPA Integrated Practice System:
For CPAs Concerned About Quality and Profitability



The Integrated Practice System (IPS) gives practitioners the tools they need to conduct high-quality and cost-effective engagements. How? By enabling CPAs to anticipate engagement problems and by putting the solutions to these problems — integrated engagement manuals, software products, and training resources — within their grasp.

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- **Receive ongoing field-testing and evaluation** from a task force of the AICPA's Private Companies Practice Section (PCPS) — CPAs who confront similar challenges in their practices and who represent the interests of local and regional firms.

- **Include a 60-day "no-questions-asked" return guarantee** that allows you the time to try the IPS products and find out for yourself how your firm and staff can benefit from them.

IPS ENGAGEMENT MANUALS: THE SMART KID ON THE BLOCK

Finally, there is a reliable, step-by-step approach for managing and performing your engagements. The IPS Engagement Manuals point you in the right direction with the time-saving tools you need to conduct high-quality engagements with the greatest efficiency. Right from the start, IPS Engagement Manuals show you a direct route to protecting your bottom line. You can minimize on-site field work and put an end to "over-auditing" because our exclusive "ABC System" helps you to evaluate risk in the critical planning stage. You'll find important guidelines to use in evaluating your client, so that you can adjust the level of testing to the internal controls employed by the client.

The IPS Engagement Manuals feature a practical, "how-to" approach that enables you and your staff to cut through the clutter and focus on what's important. By eliminating time-consuming guesswork, they chart the course to the most cost-effective, efficient way of proceeding with your engagement. Plus, the manuals include ready-to-use forms, audit programs, checklists, and questionnaires — even sample correspondence to speed your work.

Each IPS Engagement Manual includes —

- Guidance based on the most recent relevant authoritative and non-authoritative literature.
- Integrated work programs and checklists.
- Model letters ready for your use.
- Time-saving worksheets that capture important information and also help users identify opportunities for other services that can be provided to existing clients, such as consulting and tax services and the preparation of prospective financial information.

What's more, IPS Engagement Manuals ease the process of quality review by helping you develop the documentation you need.

The IPS Engagement Manuals can be easily used as stand-alone practice aids. Or, you can use them in conjunction with the full complement of IPS software — including the AICPA's very successful Accountant's Trial Balance (ATB) and Audit Program Generator (APG). Also, the checklists and programs included in the IPS Engagement Manuals are available on WordPerfect diskettes, allowing you to customize these practice aids to each engagement. It's the flexibility you need for a cost-efficient, high-quality engagement.

The AICPA recognizes your need to be up-to-date on issues that affect your clients — that's why subscribers automatically receive annual updates for the engagement manuals. Our goal, pure and simple: to provide the answers to your questions even before you ask them.

Because the AICPA has an ongoing commitment to developing the practice aids you need to serve your clients, it will continue to release new industry-specific manuals. These will contain the same kind of practical tools and how-to guidance that are the hallmarks of the IPS Engagement Manuals.

Consulting Services Manual

The AICPA *Consulting Services Manual* covers a wide range of subjects that will assist practitioners in providing specific consulting services involving finance, operations, information technology, litigation support services, business valuations, business planning, organization, and human resources. The manual also discusses the consulting process, engagement planning and management, the Statement on Standards for Consulting Services, and other relevant AICPA professional standards.

The manual is a reference source that introduces practitioners to certain professional and technical knowledge needed by the consultant and provides a quick refresher when a consultant is approached by a client to provide a specific consulting service. It also assists a partner or manager in supervising an engagement performed by outside specialists and offers guidance on administering a consulting services practice.

In addition, the manual —

- Discusses the application of professional standards to consulting services, including litigation services.
- Provides samples of proposal and engagement letters, questionnaires, checklists, and reports that will assist the consultant in conducting an engagement.
- Provides bibliographies and lists of sources of additional information about specific technical areas.

The loose-leaf format of the manual allows practitioners to easily adapt the sample checklists, questionnaires, and forms for their own purposes.

Comprehensive Engagement Manual

The *Comprehensive Engagement Manual* can help practitioners manage most engagements. Designed to be the accountant's companion to audit, review, and compilation engagements, this manual includes checklists, forms, flowcharts, questionnaires, tables, and all the documentation necessary for any size client.

This four-volume set covers engagement performance, documentation, and reporting, and helps you make key decisions, including —

- Assessing risk and establishing materiality limits.
- Selecting the most cost-beneficial audit approach.
- Designing the most economical auditing procedures.
- Making sampling decisions that maximize efficiency.

The *Comprehensive Engagement Manual* features the unique and highly-popular "ABC System" that enables practitioners to identify the most cost-beneficial mix of tests of controls, substantive tests of balances, and analytical procedures for specific engagements. This manual is ideal for firms that want a system they can apply to the full spectrum of audit engagements — whether they plan to place *no* reliance, *partial* reliance, or *high* reliance on the client's internal control structure.

Small Business Audit Manual

The two-volume *Small Business Audit Manual*, an alternative to the Comprehensive Engagement Manual, walks you through each step of the audit of a small business client. Designed for firms that use a substantive testing approach on all of their audits, the *Small Business Audit Manual* helps you to —

- Plan a cost-effective and time-efficient engagement.
- Verify all financial statement assertions using substantive tests.
- Understand a client's internal control structure and assess control risk.
- Better understand how to apply authoritative standards to small business audits.
- Evaluate a small business's computer needs.

The *Small Business Audit Manual* also puts at your fingertips sample audit programs, questionnaires, model letters, time sheets, workpapers, and audit reports for a small business audit engagement — organized in the sequence they will be used. If your firm's audits rely totally on substantive testing — that is, no reliance is placed on the client's internal control structure — this is the manual for you.

Bank Audit Manual

The three-volume *Bank Audit Manual* can help you cope with the high risk generally associated with bank audits and the complexity of bank operations. It is designed to enable you to perform high-quality engagements with maximum time savings. Based on the unique "ABC System," this manual allows you to design the most efficient and cost-effective mix of tests of controls and substantive tests of balances and analytical procedures. It does so by including —

- A framework to help practitioners select the most cost-effective audit strategy.
- Worksheets and forms to help auditors understand a bank's internal control structure and assess risk during engagement planning.
- Programs for interim work.
- Sampling documentation and discussions of professional standards that affect the sampling decision.
- Worksheets for various analytical procedures that can help to identify errors and irregularities.
- The AICPA Audit and Accounting Guide, *Audits of Banks*.

Construction Contractors' Audit Manual

You'll find this two-volume manual your most valuable practice aid when working on engagements for construction contractors. It contains —

- Two audit approaches — the System's Walk-through Approach for substantive audits and the ABC System — help you design the most efficient and effective audit strategy for each engagement.
- Practical, how-to guidance for completing construction contractor audits.
- All the necessary audit programs, forms, checklists, sample correspondence, and working papers to comply with today's quality control standards.
- A supplemental tax preparation checklist specific for construction contractors.
- The AICPA Audit and Accounting Guide, *Construction Contractors*, which contains discussions on the applicability of specific professional standards to engagements for construction contractors.

Compilation and Review Manual

A step-by-step system to help you conduct high quality compilation and review engagements — profitably and in compliance with all current applicable professional standards. This latest edition of the *Compilation and Review Manual* has been updated to explain the recently-issued SSARS No. 7. Also included in this edition is practical guidance for compiling and reviewing the required supplementary information for common interest realty associations.

Credit Union Manual

The two-volume set outlines the most efficient way to approach audits of credit unions and contains guidance on conducting them in compliance with current professional standards. This manual uses the ABC System audit approach, which allows you to choose the best mix of tests of controls and substantive tests of balances and analytical procedures on each engagement. The manual contains —

- Audit programs, forms, checklists, working papers, and illustrations necessary to perform credit union audits and supervisory examinations.
- The AICPA Audit and Accounting Guide, *Audits of Credit Unions*.
- The most recent checklists and illustrative financial statements for credit unions.

Quality Control Manual for CPA Firms

The *Quality Control Manual for CPA Firms*, gives you a step-by-step practical approach to establishing and maintaining your quality control system. Written by CPAs who have extensive peer and quality review experience, it provides all of the guidance and forms you will need, without overburdening you with unnecessary and complex documentation. This manual can be used by firms of all sizes, but its simple approach was designed with the small-to-medium-size firm in mind.

Not-for-Profit Organizations Audit Manual

The *Not-for-Profit Organizations Audit Manual,* contains everything you need to conduct high-quality audits — audit programs, forms, checklists, and sample auditor's reports and financial statements developed especially for not-for-profit organization audits. Also discussed in this manual are two FASB exposure drafts on contributions and not-for-profit organizations' financial statements, as well as three proposed exposure drafts of AICPA Statements of Position on consolidations, joint costs, and the applicability of authoritative pronouncements to not-for-profit organizations. The manual also contains guidance on performing audits under the Yellow Book and OMB Circular A-133.

IPS SOFTWARE — THE ELECTRONIC EDGE

IPS software products — ATB Write-Up, Accountant's Trial Balance (ATB) and its modules, Audit Program Generator (APG), Engagement Manager (EM) and Depreciation, among others — put the solutions to daily practice problems at your fingertips. Together with IPS Engagement Manuals, they streamline engagement planning and performance and enable you to monitor your staff and your budget more effectively. Most important, they prevent you from reinventing the wheel each time you plan and conduct an engagement.

It's easy to put these products to work for you. IPS software requires an IBM PC, XT, AT, PS/2, or IBM-compatible system and DOS version 3.1 or higher. A team of professionals is available to answer any of your questions; simply call the Software Support Hotline at 800-226-5800 or use the Software Express FAX service at 800-226-6868.

ATB Write-Up

ATB Write-Up features powerful options that let you analyze information and generate reports and financial statements quickly and easily. ATB Write-Up takes all of the power and flexibility of ATB, ATB Financial Statements, and ATB Consolidations and adds to it. ATB Write-Up offers —

- Period reporting — use up to 13 periods per year. This gives you the flexibility to generate annual, semiannual, quarterly, or monthly reports.
- Departmental reporting — set up as many departments as you need. ATB Write-Up will print most workpapers and reports by department, in total for all departments, or for a selected range of departments.
- Financial statements — up to 16 columns, each custom-definable to include periods, departments, year-to-date, percentages, add columns together, and more.
- Consolidations — link and combine accounts of related groups into one consolidated company.

Accountant's Trial Balance

ATB, the best-selling, most-used accounting software in the profession today, is an integral part of the IPS family. Designed ***by*** accountants ***for*** accountants and used by approximately 9,000 accounting firms, ATB automates much of the routine work associated with trial balance and financial statement preparation. Specifically, it —

- Generates picture-perfect working papers, including trial balances, journals, lead schedules, user-definable grouping schedules, and analytical review worksheets.

- Enables users to prepare trial balances based on GAAP, federal tax, state tax, or other user-selected accounting bases.
- Keeps up to five years of data on file for any one client, enabling you to generate a variety of comparative reports quickly and simply.

Modules for Use with ATB 3.0

- *ATB Financial Statements* — This powerful report writer enables you to produce final financial statements quickly and easily.
- *ATB Consolidations* — This module enables you to consolidate trial balances from up to nine individual companies into one ATB company trial balance — with ATB automatically keeping track of all activities.
- *ATB Conversion* — With ATB Conversion you can transfer any data electronically from a number of general ledger and working paper packages to ATB and from ATB to leading corporate tax preparation packages.

Audit Program Generator

The Audit Program Generator (APG) enables you to customize an audit program or a checklist to a particular client. Its unique features help you save time and unnecessary expense in conducting audits. Since its introduction in 1987, over 8,000 firms have used APG.

APG Version 2.0 enables you to —

- Create a variety of programs and checklists, including audit programs, disclosure checklists, and compliance checklists.
- Tailor the audit program to the needs of your specific client.
- Customize programs from a wide variety of sample AICPA work programs available in electronic format.
- Quickly link your audit procedures and financial statement assertions.
- Use a full-text editor to customize titles and footers and create appropriate tabular formats.

Engagement Manager

The Engagement Manager (EM) software package can assist you in planning, analyzing, documenting, and correcting engagement management problems — and free up valuable staff time in the process. Most important, it handles the details of creating and modifying budgets, recording actual time and expenses, and comparing results so you can devote your energy to other aspects of your business. With EM's help, you can —

- Anticipate potential budget variances and delays through a variety of analytical reports.
- Spot potential problems while there is time to take action.
- Determine the effectiveness of individual staff members by analyzing their efficiency in assigned areas.

Depreciation

Depreciation provides a simple and efficient means of calculating and tracking how assets are depreciated. It calculates depreciation for six separate reporting bases: book, federal, state, AMT, ACE, and "other." What's more, it lets you apply various methods of depreciation to any of these reports and prints out complete worksheets showing changes in various property accounts and the necessary journal entries to record depreciation for the year.

Reports generated through AICPA Depreciation include:

- Depreciation schedules by category, G/L account number, system, or convention
- Summarized worksheet information for Forms 4255, 4562, 4626, 4797, 6252, and Schedule D
- AMT preference calculation
- ACE adjustment calculation
- Fully depreciated assets report
- Amortization report
- Section 179 deduction report
- ITC-taken report
- Basis comparison
- Depreciation account reconciliation
- Amortization account reconciliation
- Schedule M-1 information
- Overridden calculations

IPS TRAINING RESOURCES: MAKING IPS WORK FOR YOU

Whether you're a user of one or more IPS products or you're looking for ways to manage engagements more effectively, IPS Training Resources can benefit you. You'll learn how IPS Engagement Manuals and Software can help your practice run more smoothly and how the system works to facilitate productivity, efficiency, and quality performance by you and your staff.

IPS Training Resources come in three formats: self-study or self-administered group study; customized in-house group study; and conferences. Here is what's available in each format:

Self-Study or Self-Administered Group Study

An *Orientation and Technical Update Seminar* is a formal group study-program designed to assist firms with initially implementing the IPS Engagement Manuals. It also provides a monitored self-study orientation on the manuals for new staff. The seminar materials can help you to better understand and apply common SASs in the most efficient manner. You'll learn how to design tests, auditing procedures, and sample sizes to collect the right amount of evidence needed for particular engagements.

Accountant's Trial Balance — CPE Edition is a self-study course that teaches you how to automate your working papers for all types of engagements. You'll earn eight hours of CPE credit as you become familiar with ATB and its most used features for audits, reviews, compilations, and tax working papers.

Accountant's Trial Balance With Financial Statement Generator — CPE Edition is a self-study course that enables you to rapidly learn the basics of ATB and the Financial Statement Generator add-on module. The recommended CPE credit for this course is eight hours.

Customized In-House Group Study

Special in-firm training is available to demonstrate how your firm can put IPS products to use. And you'll see immediate results. That's because the training leader will use a current client engagement ***you select*** as the training model. Whether you select a one- or two-day training program, you'll learn how IPS products can help you address real client needs and resolve specific client problems.

AICPA Conferences

Training sessions focusing on IPS Engagement Manuals are part of many AICPA conferences designed for local and regional practitioners, including the highly rated PCPS Conference, National Accounting and Auditing Advanced Technical Symposium, Small Firm Conferences, and Practice Management Conferences.

To schedule in-firm training or to obtain more information about IPS Training Resources, including dates and locations of these conferences, call the AICPA Technical Information Division at (201) 938-3061.

PREFACE

The AICPA *Consulting Services Manual* brings together guidance on the performance of the consulting services identified in the Statement on Standards for Consulting Services (SSCS). The focus of this manual is on the consulting services that a CPA who is a general practitioner would provide to small and medium-sized client organizations. This manual does not address many other consulting services that are either very specialized or infrequently provided.

This manual will serve as a reference source to (a) introduce practitioners to certain professional and technical knowledge needed by the CPA consultant, (b) provide a quick refresher when a client requires the performance of a specific consulting service, (c) enable a partner or manager to supervise an engagement performed by staff, and (d) provide examples of letters, questionnaires, forms, checklists, and reports that may assist the consulting services practitioner to perform engagements more expeditiously.

Part I of the manual deals with the professional and administrative matters that specifically relate to CPA consulting services. The subsequent parts are divided into sections that contain service-oriented practice aids, each of which describes consulting approaches and considerations for a specific kind of engagement. In providing guidance on the technical aspects of a particular type of engagement, each section assumes that the practitioner has gained the fundamental technical knowledge needed to perform the engagement through experience, education, and other resources such as the books, journal articles, and other research materials listed in the bibliography of each section.

The appendixes in each section provide illustrative materials to help practitioners conduct an engagement. The sample engagement letters, questionnaires, and reports illustrate concepts described in the text. The practitioner can easily adapt these illustrative materials for specific engagements.

This manual does not include everything a practitioner needs to know or do to provide a specific service. Furthermore, engagement circumstances differ, and, therefore, the practitioner's professional judgment may cause him or her to conclude that an approach described in the manual is inappropriate in a specific case.

ACKNOWLEDGEMENTS

The Management Consulting Services (MCS) Division expresses its appreciation to past and present members of the MCS Executive Committee and the MCS subcommittees for their contributions to the development of this manual. The MCS subcommittees are:

Business Valuations and Appraisals Subcommittee
Computer Applications Subcommittee
Litigation Services Subcommittee
Practice Standards and Administration Subcommittee
Small Business Consulting Practices Subcommittee
Technical and Industry Consulting Practices Subcommittee

In addition to the contributions of past and present subcommittee members, the MCS Division acknowledges the particular contributions of the following: Robert S. Roussey for section 4/100, "Consulting Services Control and Management;" Joseph E. Palmer for 10/100, "Financial Ratio Analysis;" Philip L. Blumenthal for section 12/100, "Preparing Financial Models;" Gary R. Trugman for section 13/100, "Conducting a Valuation of a Closely Held Business;" Roxanne H. Gibson for section 30/100, "Assisting a Client in Developing an Employee Handbook;" Douglas M. Corban and Robert F. Shriver for section 43/100, "Software Package Evaluation and Selection;" Robert G. Failing, Jerry L. Janzen, and Larry D. Blevins for section 62/100, "Improving Productivity Through Work Measurement;" Peter B. Frank and Michael J. Wagner for section 70/100, "Providing Litigation Services;" and Lowell V. Getz for section 75/100, "Mergers, Acquisitions, and Sales." The forms and checklists in appendix 20/C were adapted from the *Management Advisory Services Manual* by Glenn H. Van Doren and Stephen D. Nadler (Warren, Gorham, & Lamont, 1987) and are reprinted with permission.

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SUGGESTED REVISIONS TO THE *CONSULTING SERVICES MANUAL*

Please submit all suggestions to improve this manual. In addition to the manual's content, other areas to address include readability; ease of use; organization of the material; usefulness of the table of contents, the numbering system, references, forms, and checklists; and presentation of the material. We value readers' responses and will consider all comments and suggestions when we revise this manual.

Mail or fax this form to Editor/Coordinator, MCS Division, AICPA, Harborside Financial Center, 201 Plaza Three, Jersey City, NJ 07311-3881, Fax (201) 938-3329.

Comments and Suggestions:

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From:

Name____________________________________

Firm____________________________________

Address__________________________________

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Management of
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NOTICE TO READERS

This *Consulting Services Manual* is designed as educational and reference material for members of the American Institute of Certified Public Accountants and others who provide consulting services as defined in the Statement on Standards for Consulting Services (SSCS) issued by the Institute. It does not establish standards or preferred practices.

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Part I—Management of CPA Consulting Services

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1/100 DEFINITION OF CONSULTING SERVICES

1/100 DEFINITION OF CONSULTING SERVICES

1/105 INTRODUCTION

.01 What are *CPA consulting services*? That question is fair to ask since the term is a very recent addition to the professional lexicon. The terms that preceded it included Management Advisory Services (MAS), management services, business advisory services, and management consulting services. The American Institute of Certified Public Accountants' (AICPA's) Management Consulting Services Executive Committee decided on *consulting services* when it issued new standards in 1991 because the older titles failed to convey the broad range of services encompassed by the Statement on Standards for Consulting Services (SSCS), which is provided in section 2/110.

.02 As defined in the SSCS, *consulting services* are professional services that employ the practitioner's technical skills, education, observations, experience, and knowledge of the consulting process. The SSCS describes six consulting functions included in the term *consulting services*. It would be impossible to provide a list of every potential service within those six functions, and that is not attempted in the SSCS. Instead, it provides a few examples within each function. Each consulting function differs from the others in keeping with the specific *purpose* of the services rendered.

.03 The purpose of a *consultation* is to provide a rapid response to a client inquiry that requires little or no research. The purpose of an *advisory service* is to develop findings, conclusions, and recommendations for client consideration and decision making. The purpose of an *implementation service* is to implement an action plan. The purpose of a *transaction service* is to provide services related to a specific client transaction, generally involving a third party. The purpose of *staff and other support services* is to perform tasks specified by the client. The purpose of a *product service* is to provide the client with a product and professional services associated with installation, use, or maintenance of the product.

2/100 STANDARDS FOR CONSULTING SERVICES

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2/100 STANDARDS FOR CONSULTING SERVICES

2/105 CODE OF PROFESSIONAL CONDUCT

Principles of Professional Conduct

.01 The preamble and Articles I through VI of the American Institute of Certified Public Accountants (AICPA) Code of Professional Conduct provide general guidance on professional responsibilities, the public interest, integrity, objectivity and independence, due care, and the scope and nature of services without establishing specific standards. Nevertheless, they should be read by every practitioner. An understanding of the difference between independence and objectivity is important particularly when consulting services are being provided to attest service clients. The AICPA standards for independence relate only to the performance of attestation services. The standards for objectivity apply to all services. It is important, however, that the practitioner adhere to all the rules that are appropriate for the particular service being provided.

General Standards

.02 Practitioners of consulting services who are members of the AICPA are subject to the Code of Professional Conduct. Rule 201 of the Code sets forth four general standards for all professional services. These standards are repeated in the Statement on Standards for Consulting Services (SSCS) as four of the seven consulting services standards and are discussed later in this manual. The authority to issue standards for consulting services is derived from the Code. Members need to review the Code to determine the behavioral standards that apply to consulting services.

Integrity and Objectivity

.03 Rule 102 and Interpretation 102-2 of the Code are important to consulting services practice. Interpretation 102-2, dealing with conflicts of interest, is referred to in the SSCS. Among other things, integrity requires a member to be honest and candid within the constraints of client confidentiality. Objectivity is a state of mind, a quality that lends value to a member's services. It is the distinguishing feature of the profession. The concepts of integrity and objectivity are discussed further in section 2/110.

Confidential Client Information

.04 Rule 301 of the Code of Professional Conduct is particularly applicable when consulting services are provided to a client. The rule is that a practitioner will not disclose any confidential client information without the specific consent of the client. Interpretation 301-2 of the Code explains the four exemptions that permit disclosure of such information without the client's specific consent.

Contingent Fees, Commissions, and Referral Fees

.05 The recently revised AICPA rule 302 on contingent fees and rule 503 on commissions and referral fees are significant for consulting services because they do not restrict the acceptance of such compensation when providing consulting services for non-attest clients. Under certain circumstances, these types of practitioner fee arrangements are permissible. One requirement is that commissions and referral fees be disclosed to the client. Practitioners who choose to accept fees and commissions as defined in these rules should be aware that state or other regulatory bodies may not permit such practices.

2/110 STATEMENT ON STANDARDS FOR CONSULTING SERVICES NO. 1—CONSULTING SERVICES: DEFINITIONS AND STANDARDS

Introduction

1. Consulting services that CPAs provide to their clients have evolved from advice on accounting-related matters to a wide range of services involving diverse technical disciplines, industry knowledge, and consulting skills. Most practitioners, including those who provide audit and tax services, also provide business and management consulting services to their clients.

2. Consulting services differ fundamentally from the CPA's function of attesting to the assertions of other parties. In an attest service, the practitioner expresses a conclusion about the reliability of a written assertion that is the responsibility of another party, the asserter. In a consulting service, the practitioner develops the findings, conclusions, and recommendations presented. The nature and scope of work is determined solely by the agreement between the practitioner and the client. Generally, the work is performed only for the use and benefit of the client.

3. Historically, CPA consulting services have been commonly referred to as management consulting services, management advisory services, business advisory services, or management services. A series of Statements on Standards for Management Advisory Services (SSMASs) previously issued by the AICPA contained guidance on certain types of consulting services provided by members. This Statement on Standards for Consulting Services (SSCS) supersedes the SSMASs and provides standards of practice for a broader range of professional services, as described in paragraph 5.

4. This SSCS and any subsequent SSCSs apply to any AICPA member holding out as a CPA while providing Consulting Services as defined herein.

Definitions

5. Terms established for the purpose of the SSCSs are as follows:

Consulting Services Practitioner. Any AICPA member holding out as a CPA while engaged in the performance of a Consulting Service for a client, or any other individual who is carrying out a Consulting Service for a client on behalf of any Institute member or member's firm holding out as a CPA.

Consulting Process. The analytical approach and process applied in a Consulting Service. It typically involves some combination of activities relating to determination of client objectives, fact-finding, definition of the problems or opportunities, evaluation of alternatives, formulation of proposed action, communication of results, implementation, and follow-up.

Consulting Services. Professional services that employ the practitioner's technical skills, education, observations, experience, and knowledge of the consulting process.[1] Consulting Services may include one or more of the following:

a. *Consultations,* in which the practitioner's function is to provide counsel in a short time frame, based mostly, if not entirely, on existing personal knowledge about the client, the circumstances, the technical matters involved, client representations, and the mutual intent of the parties. Examples of consultations are reviewing and commenting on a client-prepared business plan and suggesting computer software for further client investigation.

b. *Advisory services,* in which the practitioner's function is to develop findings, conclusions, and recommendations for client consideration and decision making. Examples of advisory services are an operational review and improvement study, analysis of an accounting system, assisting with strategic planning, and defining requirements for an information system.

c. *Implementation services,* in which the practitioner's function is to put an action plan into effect. Client personnel and resources may be pooled with the practitioner's to accomplish

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[1] The definition of Consulting Services excludes the following:

a. Services subject to other AICPA Technical Standards such as Statements on Auditing Standards (SASs), Statements on Standards for Attestation Engagements (SSAEs), or Statements on Standards for Accounting and Review Services (SSARSs). (These excluded services may be performed in conjunction with Consulting Services, but only the Consulting Services are subject to the SSCS.)

b. Engagements specifically to perform tax return preparation, tax planning/advice, tax representation, personal financial planning or bookkeeping services; or situations involving the preparation of written reports or the provision of oral advice on the application of accounting principles to specified transactions or events, either completed or proposed, and the reporting thereof.

c. Recommendations and comments prepared during the same engagement as a direct result of observations made while performing the excluded services.

the implementation objectives. The practitioner is responsible to the client for the conduct and management of engagement activities. Examples of implementation services are providing computer system installation and support, executing steps to improve productivity, and assisting with the merger of organizations.

d. *Transaction services,* in which the practitioner's function is to provide services related to a specific client transaction, generally with a third party. Examples of transaction services are insolvency services, valuation services, preparation of information for obtaining financing, analysis of a potential merger or acquisition, and litigation services.

e. *Staff and other support services,* in which the practitioner's function is to provide appropriate staff and possibly other support to perform tasks specified by the client. The staff provided will be directed by the client as circumstances require. Examples of staff and other support services are data processing facilities management, computer programming, bankruptcy trusteeship, and controllership activities.

f. *Product services,* in which the practitioner's function is to provide the client with a product and associated professional services in support of the installation, use, or maintenance of the product. Examples of product services are the sale and delivery of packaged training programs, the sale and implementation of computer software, and the sale and installation of systems development methodologies.

Standards for Consulting Services

6. The general standards of the profession are contained in rule 201 of the AICPA Code of Professional Conduct (AICPA, *Professional Standards*, vol. 2, ET sec. 201.01) and apply to all services performed by members. They are as follows:

   Professional competence. Undertake only those professional services that the member or the member's firm can reasonably expect to be completed with professional competence.

   Due professional care. Exercise due professional care in the performance of professional services.

   Planning and supervision. Adequately plan and supervise the performance of professional services.

   Sufficient relevant data. Obtain sufficient relevant data to afford a reasonable basis for conclusions or recommendations in relation to any professional services performed.

7. The following additional general standards for all Consulting Services are promulgated to address the distinctive nature of Consulting Services in which the understanding with the client may establish valid limitations on the practitioner's performance of services. These Standards are established under rule 202 of the AICPA Code of Professional Conduct (AICPA, *Professional Standards*, vol. 2, ET sec. 202.01).

Client Interest. Serve the client interest by seeking to accomplish the objectives established by the understanding with the client while maintaining integrity and objectivity.[2]

Understanding With Client. Establish with the client a written or oral understanding about the responsibilities of the parties and the nature, scope, and limitations of services to be performed, and modify the understanding if circumstances require a significant change during the engagement.

Communication With Client. Inform the client of (*a*) conflicts of interest that may occur pursuant to interpretations of rule 102 of the Code of Professional Conduct,[3] (*b*) significant reservations concerning the scope or benefits of the engagement, and (*c*) significant engagement findings or events.

8. Professional judgment must be used in applying the Statement on Standards for Consulting Services in a specific instance since the oral or written understanding with the client may establish constraints within which services are to be provided. For example, the understanding with the client may limit the practitioner's effort with regard to gathering relevant data. The practitioner is not required to decline or withdraw from a consulting engagement when the agreed-upon scope of services includes such limitations.

Consulting Services for Attest Clients

9. The performance of Consulting Services for an attest client does not, in and of itself, impair independence.[4] However, members and their firms performing attest services for a client should comply with applicable independence standards, rules and regulations issued by the AICPA, the state boards of accountancy, state CPA societies, and other regulatory agencies.

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[2] Article III of the Code of Professional Conduct describes *integrity* as follows:

"Integrity requires a member to be, among other things, honest and candid within the constraints of client confidentiality. Service and the public trust should not be subordinated to personal gain and advantage. Integrity can accommodate the inadvertent error and the honest difference of opinion; it cannot accommodate deceit or subordination of principle."

Article IV of the Code of Professional Conduct differentiates between *objectivity* and *independence* as follows:

"Objectivity is a state of mind, a quality that lends value to a member's services. It is a distinguishing feature of the profession. The principle of objectivity imposes the obligation to be impartial, intellectually honest, and free of conflicts of interest. Independence precludes relationships that may appear to impair a member's objectivity in rendering attestation services."

[3] Rule 102-2 on Conflicts of Interest states, in part, the following:

"A conflict of interest may occur if a member performs a professional service for a client or employer and the member or his or her firm has a significant relationship with another person, entity, product, or service that could be viewed as impairing the member's objectivity. If this significant relationship is disclosed to and consent is obtained from such client, employer, or other appropriate parties, the rule shall not operate to prohibit the performance of the professional service...."

[4] AICPA independence standards relate only to the performance of attestation services; objectivity standards apply to all services. See footnote 2.

Effective Date

10. This Statement is effective for engagements accepted on or after January 1, 1992. Early application of the provisions of this Statement is permissible.

.01 The final paragraph of the SSCS makes it clear that practitioners who practice consulting services and attest services for the same client must comply with applicable independence rules and regulations for the attest portion of the engagement.

3/100 THE CONSULTING PROCESS

CONTENTS

3/100 THE CONSULTING PROCESS

.01 Consulting services vary greatly in nature and scope. The practitioner who is engaged to perform a specific service generally develops a plan setting out the steps to be performed to accomplish the engagement's objectives. This occurs for all consulting services except consultations, which typically do not proceed through the formal engagement process, but instead involve informal advice based on the consultant's knowledge of the client's operations.

.02 There is an established consulting process that most engagements follow in whole or in part. As defined in the SSCS, the consulting process is "the analytical approach and process applied in a consulting service. It typically involves some combination of activities relating to determination of client objectives, fact-finding, definition of the problems or opportunities, evaluation of alternatives, formulation of proposed action, communication of results, implementation, and follow-up." For the purposes of discussion of the consulting process in this manual, the consulting engagement is divided into five phases: client contact, diagnosis, action planning, implementation, and completion.

3/105 CLIENT CONTACT

.01 Consulting services are generally two-party services. They stem from the decision of a business, not-for-profit, or governmental organization to engage the CPA consultant to provide specific services or, in the case of operational audits and similar services, to determine whether there are problems or opportunities that need management's attention. That decision results from contact between the CPA and the client.

.02 The prospective client for consulting services is often a client of the CPA for accounting or tax-related services, and the contact occurs because of that prior relationship. This is the most common source of consulting work for CPAs in small firms.

.03 In some cases, primarily those involving governmental organizations, the initial contact is in the form of a request for proposal (RFP), which the potential client sends to competing consultants. The response to an RFP is a bid for the consulting contract. The client's selection is usually based on the consultant's understanding of the requirements and objectives, knowledge, and prior related experience, and the estimated cost of services.

.04 New contacts for consulting services may result from the firm's business development efforts particularly in larger CPA firms. They generally require the CPA to contact an organization through its executives and offer to provide services that the consultant believes are appropriate for the organization at the time.

.05 The type of contact that is likely to be least frequent will result from a potential client discovering a need for a specific service and approaching the CPA after learning about the firm or individual's reputation through referral or an article, seminar, or newsletter. The CPA who waits for this type of contact is unlikely to have a financially successful consulting practice. The process of stimulating new client contacts for, or existing client interest in, consulting services is discussed in ¶ 5/105.67, "Marketing Consulting Services."

Reaching an Understanding With the Client

.06 The client contact phase ends when the client and practitioner reach an understanding about the services that will be performed during the engagement. To reach this understanding, the practitioner may need to conduct a preliminary survey. The understanding may be oral or may be documented in a proposal letter or engagement letter or, particularly in government work, a contract. In effect, the understanding, documented or not, is a contract and should be treated as such. The SSCS emphasizes the importance of the understanding with the client.

.07 Because of the specialized nature of consulting services engagements and the diversity of results possible in such engagements, the practitioner and the client need to reach an understanding about the nature, scope, limitations, and terms of each engagement. An understanding includes agreeing on and communicating engagement arrangements. If any modifications are to be made, they should be communicated as well. Communication is important because each engagement understanding, oral or written, is a contract, either expressed or implied.

.08 As client and practitioner work together to reach an agreement on a consulting services engagement, they develop assumptions and expectations about each party's performance that may be an unstated agreement. To avoid misunderstandings, it may be desirable for each party to inform the other about its assumptions and expectations through written communication. Such written communication can provide a framework of understanding throughout a project, but may need to be modified if either party's assumptions and expectations change.

.09 A need for the communication of understandings exists throughout a project. It is a step toward effectively achieving the agreed-upon objectives and results. Such communications have the following advantages:

- *Establishing the contractual obligation.* Engagement understandings are contracts created when the practitioner agrees to render services and a client agrees to pay for them. They can clearly delineate the duties and responsibilities of both the client and the practitioner.

- *Limiting legal liability.* An engagement understanding can establish the scope and nature of a practitioner's contractual obligation to the client by setting forth, clearly and specifically, the work the practitioner has agreed to perform.

- *Orienting the staff.* A practitioner's staff members require a complete understanding of the nature of the work expected of them. Engagement staff also need to be informed in advance about the scope of the engagement so that they can properly plan and perform required steps and procedures.

- *Aiding in practice management.* By reviewing an engagement letter or another written understanding, others in the firm have an opportunity to correct or amend the content of the communication before it is delivered to the client.

- *Providing an orderly assessment of the engagement.* A written engagement understanding may permit an assessment and review of the client services actually performed as compared with those described in the initial engagement understanding. The assessment after the engagement presents a learning opportunity to improve future engagements. Usually, a memo can be written to the file for later reference.

Forms of Engagement Understandings

.10 Engagement understandings have the following forms:

.11 *Oral understanding.* An oral understanding for a consulting services engagement may be reached if the client views a written proposal or engagement letter as unnecessary or undesirable. If the consulting services function performed is a consultation, the understanding is almost always oral because the engagement understanding, response, and completion often occur in a single conversation between the client and practitioner.

.12 *Proposal letter.* A proposal letter is an offer of services. When accepted, it becomes a contractual agreement. It may have been prepared as a result of an initial client contact or in response to a request for proposals (RFP), sent by the prospective client to several consulting organizations. The proposal letter generally covers engagement objectives, potential benefits, other elements of the proposed engagement plan, and arrangements that the client should know about in order to make an informed decision concerning acceptance of the proposal. A sample proposal letter is provided in appendix 3.

.13 *Engagement letter.* An engagement letter is sent by the practitioner to document agreed-upon engagement matters. The contents would be similar to a proposal letter except that the understanding has been already reached through previous contacts with the client. A sample engagement letter is provided in appendix 3.

.14 *Confirmation letter.* A confirmation letter is a brief letter sent when the client and the practitioner have a clear understanding of their respective roles and the engagement's objectives. It simply establishes the existence of an agreement on services to be performed, or spells out any changes to a previous proposal, engagement letter, or oral understanding (for example, a changed engagement start date).

.15 *Contract.* A contract is a legal document generally prepared by the client, often incorporating a proposal letter or engagement letter prepared by the practitioner.

Elements of Engagement Understandings

.16 A consulting services engagement understanding may involve many common elements of information no matter which communication method the practitioner uses. The paragraphs that follow address some information elements that deserve consideration when the practitioner is determining what should be covered in the understanding with the client.

.17 *Client background.* Discussions of the client's background may include the history of the company and the specific engagement. Restating the client's perceived problems or current status as well as describing the engagement helps define the understanding.

.18 *Engagement objectives.* By stating the engagement objectives, the practitioner can communicate the preliminary understanding of the problem to the client, the reasons for performing the work, mutual expectations, and the major form of project products.

.19 *Engagement scope.* By defining the scope of an engagement, the practitioner focuses more specific attention on the objectives. The practitioner can address the particular project areas, thereby describing the work to be done, the work to be excluded, the overall engagement schedule, and the interim objectives to achieve throughout the project. This reduces the possibility of the client anticipating the scope to be larger than intended by the practitioner. It can also highlight other areas of opportunity.

.20 *Engagement approach.* In describing the engagement approach, the practitioner outlines the general steps necessary to complete the engagement. Such a description might include how and in what order the practitioner will perform the work. Often, many different engagement approaches can provide the same results, but used simultaneously they can cause disruption and confusion. Therefore, the client and practitioner need to discuss and understand the engagement approach.

.21 The engagement approach is based on an understanding of the steps the client and practitioner deem sufficient to meet the objectives. This mutual understanding establishes the accountability for the tasks to be performed. In addition, if the tasks performed prove insufficient, then the practitioner and client can establish criteria to implement contingency plans or alternative procedures.

.22 *Roles.* The roles of all parties to the engagement need to be clearly defined. The client needs to know which tasks the practitioner will perform and which tasks the client will perform. If this is a cooperative engagement or one that involves regulatory agencies, the roles of all outside parties will need to be defined. These outside parties include consultants other than the practitioner and those individuals who control and interpret regulatory authority. In this way both the client and the practitioner have direct knowledge of who is accountable for what actions. The communication method the various participants will use, whether oral or written reports, is also stated.

.23 *Engagement review.* The practitioner may wish to provide checkpoints during the engagement. An engagement review process provides for ongoing problem clarification and resolution. It establishes that the practitioner and the client may need to reach mutual decisions during the project in order to proceed. Special communications may be required if there are any major changes in the engagement's scope, objectives, approaches, or roles. It may also prove necessary to redefine each party's responsibilities because of modifications to the project. Preliminary engagement findings may require restructuring of the engagement. Accordingly, the client and practitioner may need to agree to—

- Modify the engagement.
- Continue the engagement.
- Expand the engagement to provide for the new circumstances.
- Note the new circumstances for future consideration.

.24 *Engagement output.* The practitioner may wish to describe the engagement output (for example, reports or programs). This defines what the practitioner will provide to the client and may also define the output's impact on the client organization. The project outputs may be tangible, intangible, or both. Examples of tangible output are a system, a report, or a service developed through the engagement. Examples of intangible outputs are better employee awareness, better employee interaction, or improved employee attitude.

.25 *Anticipated results and benefits.* The practitioner and the client may wish to discuss the results and benefits that may accrue from the engagement. If achieving the desired outcome appears doubtful, the practitioner may need to review the proposed engagement with the client before proceeding.

.26 Increased client awareness can help establish realistic expectations about project results. Total success of an engagement may depend on the actual occurrence of certain anticipated events. The practitioner may wish to inform the client of this. Such information may assist the client in evaluating the benefits of proceeding with the engagement.

.27 *Project staffing and scheduling.* The practitioner may wish to inform the client of the expected start and completion dates of the engagement and to specify the client or practitioner personnel required. The success of the engagement requires not only cooperation and communication between parties, but also a clear understanding of each party's expected performance on the project, as well as flexibility in dealing with contingencies.

.28 *Engagement completion.* The client-practitioner understanding must include a definition of what will be considered the completion of the engagement. The parties may wish to identify specific events that would change the scope or modify the engagement.

.29 *Fees, billing arrangements, and payments.* Documenting the fees, billing arrangements, and payments is important to client-practitioner communication and understandings. The practitioner may wish to explain the basis for consulting fees, such as hourly rates, fixed fees, or a guaranteed maximum. The practitioner may also wish to describe firm policy regarding fee accumulation, billing procedures, payment terms, and out-of-pocket expenses. Furthermore, the practitioner may wish to make clear to the client that payment of fees does not depend on the outcome of the engagement unless a contingent fee is permissible and agreed upon. (See section 503 of the AICPA Code of Professional Conduct regarding commissions and referral fees.)

.30 *Engagement acceptance*. Acceptance of the engagement by the client and practitioner is based on reaching a mutual understanding of the engagement's objectives, scope, and approach. Such acceptance also acknowledges the role of each party in the engagement. Acceptance of the understanding establishes engagement review procedures, project outputs, potential benefits and results, and personnel requirements. It provides for recognizing when the engagement is complete and acknowledges how the practitioner will be paid. Communication of acceptance signals that both the client and the practitioner are willing to begin the project.

3/110 DIAGNOSIS

.01 The key to providing effective consulting services often lies in a diagnosis that goes beyond identifying symptoms and correctly pinpoints the cause of a problem. Many clients can recognize the symptoms of a problem based on their own observations. They may ask for a cure of the symptoms. In such cases, the consulting professional's task is to find the cause and recommend or implement appropriate actions that will end or ameliorate the symptoms by attacking the root cause of the problem. The tools available to the practitioner for diagnosing a client's condition include a diagnostic review, an operational audit, financial ratio analysis, systems and procedures analysis, work measurement, and various checklists and tests that incorporate criteria for a specific industry or function.

3/115 ACTION PLANNING

.01 When the practitioner is engaged to identify and correct problems in the client's operations, action planning usually follows the diagnosis. Implementation of the recommendations presented to the client in the action plan may then follow. However, not all consulting engagements will follow this pattern. For example, a practitioner may be engaged to develop and implement a computer-based accounting system for a client. Problem identification will not be part of the engagement although fact-finding may be very important in some situations and less important in others. In other cases, the client may elect to implement the recommendations without further assistance from the practitioner. In the latter case, the total engagement process would start with client contact and end when action planning is completed.

.02 The action planning phase of the consulting process begins with an objective to accomplish and ends with the presentation of findings and recommendations for its accomplishment. The path to selecting a primary recommendation for a client course of action may be straightforward or may involve the exploration of possible alternatives.

.03 In evaluating alternatives, the practitioner needs to review all possible changes in light of the agreed-upon engagement objectives. For each alternative, the practitioner needs to answer these questions: "Will it be achieved?" "What effects will each of the alternative courses of action have on the present situation?" "Is implementation feasible?" "What about timing?" "Will the changes be sustainable?" "What are the potential pitfalls?" "Who will be affected?" The responses to each of these questions and others should be weighted to provide a picture of the impact each action would have on the client's organization.

.04 The end result of the action planning phase would be a presentation (oral, written, or both) of the suggested course or alternative courses of action to client management. An implementation plan may also be included in the presentation.

3/120 IMPLEMENTATION

.01 Until fairly recently, with the advent of personal computers, implementation engagements were rarely conducted, except by the largest CPA firms. Today, however, such engagements are commonly conducted by smaller firms. For example, for many years, smaller firms have been assisting in implementation activities associated with mergers and acquisitions. Many engagements still involve the action planning phase of the consulting process, but CPAs do take engagements that involve primarily doing something other than developing recommendations for the client.

.02 In some cases, the practitioner takes an active role as a system installer, an expert (litigation services), an appraiser (business valuations), a trainer, or even as a controller or facilities manager (staff and other support services). All of these hands-on services involve the practitioner personally in producing, or taking responsibility for producing, an end result or product. These services would best fit within the implementation phase of the consulting process, although as defined in the SSCS, they are separate consulting services.

3/125 COMPLETION

.01 Each phase of a consulting services engagement is a step toward achieving the objectives and results that were agreed to in the oral or written understanding with the client. The nature of the final phase will depend on the work that has preceded it. An engagement that includes implementation work, for example, usually concludes when the practitioner and client agree that the specified activities have been accomplished or cannot be accomplished. A consultation usually concludes in the same conversation in which it was begun. A transaction service usually ends when the transaction is completed or terminated. The conclusion of an advisory service that is not to be followed by implementation work is often signalled by the presentation of a final report to the client. However, the client or practitioner may terminate any engagement at any time for any of a number of reasons.

Written Communication of Results

.02 Practitioners usually have specific reasons for communicating engagement results in writing. These reasons guide them in determining the appropriate format and content for each situation. Written communication of results can be used to—

- Inform the client that all or part of the work has been completed and relate the work done to the original client-practitioner understanding.
- Document engagement observations and findings that support conclusions and recommendations.
- Recommend solutions or suggest further steps to be taken, if any.
- Provide the client with engagement-related reference materials that can serve as a source for further analysis, consideration, and action. Such materials might help clients who need additional information about the engagement.
- Provide an overall review of the project. When developing a written communication, practitioners often review the engagement to determine that its objectives were met and that enough facts support the conclusions and recommendations.

Types of Reports

.03 Written communications of results may vary significantly in purpose and format. The following are the three types of reports most commonly prepared by practitioners.

.04 **Interim Report.** Practitioners who need to communicate with the client during an engagement generally use an interim report, which may, for example—

- Clarify technical matters that the client does not understand or that the client and practitioner have not agreed on.
- Clarify the engagement scope or objectives if they change during the engagement or if the practitioner determines that the original understanding needs further comment.
- Communicate preliminary findings, conclusions, and recommended actions that the practitioner chooses to bring to the client's attention before completing the engagement.
- Communicate progress or status, especially when an engagement is lengthy.

.05 The practitioner can strengthen an interim report by explaining its purpose, its value, and its relationship to the final report or other interim reports.

.06 **Completion Notification Letter.** The completion notification letter generally describes what the client asked the practitioner to do and indicates that the practitioner completed the tasks. It documents engagement completion. The practitioner might use the completion notification letter when—

- The client has already received most of the project products.
- The engagement has involved a counseling relationship in which the discussions were confidential and not to be documented in writing to the client.

.07 The practitioner may also choose to notify the client orally of project completion. In such cases the practitioner may find it helpful to prepare a completion memo for the file.

.08 **Formal Report.** When written communication is appropriate, the practitioner prepares a formal letter or report. While the particular client situation and the practitioner's judgment determine the exact content and organization of the letter or report, it might include the following sections:

.09 *Executive summary.* If the engagement produces a lengthy report, the practitioner can use an executive summary which may include brief statements about the objectives and scope, key findings and results, and significant conclusions and recommendations.

.10 *Introduction and background.* A section providing an introduction and engagement background gives the reader enough information to understand the engagement results, conclusions, and recommendations.

.11 *Objectives of the engagement.* A description of the engagement's objectives gives the reader a basis for evaluating engagement findings and recommendations.

.12 *Scope and approach.* The "Scope and Approach" section identifies any engagement limitations or constraints. It can also describe the major tasks performed and the client's participation in them, as well as the specifics of data gathering, such as the number of interviews conducted, the specific individuals interviewed, or a list of locations or facilities visited, or of written materials reviewed or relied on.

.13 *Findings and observations.* The practitioner may document engagement findings and observations within the framework of the objectives and scope. They support report conclusions and recommendations. For best results they are presented objectively in a clear, concise, and constructive manner.

.14 *Conclusions and recommendations.* Conclusions are the practitioner's interpretation of the evidence (findings) in relation to the engagement objectives. The practitioner uses these conclusions, findings, and observations to formulate recommendations. Among other things, recommendations may include a presentation of alternatives, suggested courses of action, and implementation plans.

.15 An illustrative checklist to review letters or formal reports appears in exhibit 3-3.

Engagement Follow-Up

.16 Conclusion of the work may not be all that is required for engagement completion. The practitioner often finds that a follow-up visit to the client is advisable before viewing the engagement as completed. Such visits often provide additional work, enhanced client satisfaction, and a learning experience for the practitioner. Firm quality control reviews may take place before or after the official administrative completion of an engagement which is often based upon full payment of outstanding fees.

APPENDIX 3

ILLUSTRATIVE MATERIALS

Exhibit 3-1

Sample Proposal Letter

[*CPA Firm Letterhead*]

June 15, 19XX

Mr. John L. Grimes, President
Volt Electronics, Inc.
9819 Jefferson Avenue
Chargeville, OR 99999

Dear Mr. Grimes:

As a result of our preliminary meeting last week, I am pleased to propose services to help you meet your company's inventory control needs.

The primary concern you expressed relates to the inventory mix, with its inability to respond to customer demand on a timely basis. You also expressed concern about the need for a system to document the transfer of inventory items between warehouses and other locations. In addition, you mentioned that five warehouses are still using the same physical layout as ten years ago, despite extensive changes in product lines and product sales during that period.

On the basis of our discussions, we believe Volt Electronics, Inc., would benefit from an automated inventory control system, which would incorporate the inventory transfers between warehouses and other locations. We believe you can use your existing computer and that available inventory control software can be modified to accomplish these goals. In addition, a review of the physical layout at the five warehouses is needed to determine if changes are necessary.

Engagement Scope and Approach

From our conversations with you and other members of the warehouse and inventory control department, we know that implementing a new system requires significant preparation. Certain system details, such as physical inventory flows and a new warehouse layout design, must be ready once the general system parameters have been prepared.

Our overall approach is to provide a step-by-step plan, which will enable us to identify issues and provide project leadership. To accomplish this, we will review your current facilities, procedures, and personnel. We will also interview your staff affected by the engagement. In addition, we will document the existing situation and its problems as well as the potential solutions. We propose to conduct the work in two phases, as described below.

Phase 1—Preimplementation Planning

In phase 1 we will develop a detailed list of task and purpose timetables to complete them in order to implement your inventory control system. Essentially we will evaluate and advise, although we will also help develop and design the engagement output. During the preimplementation planning phase of this project, we will—

- Gather and analyze inventory data.
- Evaluate alternative methods of inventory analysis.
- Help prepare an inventory control plan.
- Help select and modify inventory control software.
- Gather and analyze existing transfer documents.
- Help develop the new transfer documentation system.
- Examine storage facilities, traffic patterns, and physical inventory flows in the five designated warehouses.
- Help design new warehouses layouts.

We expect you to—

- Provide the necessary records or documents.
- Make your staff available for interviews and conferences.
- Cooperate with our staff in developing solutions.

Phase 2—Implementation Assistance

After concluding the preimplementation planning, we can provide implementation guidelines. In this regard, we suggest a second phase to our engagement. When we deliver our report, we can discuss our respective roles in implementing and training your personnel in using the improved forms, procedures, and systems. We would guide your personnel in implementing the system. This phase of the project includes the following task:

- Install the appropriate software modules.
- Enter historical data (for example, prior period balances).
- Enter budget data (for example, defective returns).
- Test the system.
- Develop reports from the structures defined in phase 1.
- Initiate "live" processing when satisfied with the results of the above tasks.

Once the modules are in place and operating properly, we also suggest a postimplementation review of the system. This review would assess the need for other system modules as well as enhancements to the existing modules.

Anticipated Results and Potential Benefits

If implemented and operated as anticipated, the new systems and warehouse layout could result in—

- Lower inventory levels.
- A more profitable sales mix.
- Less warehouse space needed.
- More efficient warehouse operations.
- Control over the physical inventory transfers.
- Provision for a perpetual inventory system.

Project Completion

The project's schedule is affected by anticipated software installation dates, as well as the ability of your personnel to allot time to the project. We urge that you initiate phase 1 immediately to expedite implementation. With the full cooperation and participation of your staff, we believe we can complete phase 1 in two to three weeks. Phase 2 will take a minimum of one month.

We will consider phase 1 concluded when we have completed all formulas, designs, and documents and presented them to you. At that time we will provide you with our report and our proposal to provide additional services, if desired. Assuming adequate participation by your management for approval of various planning components, we may be able to overlap portions of the second phase with the first. For example, once the transfer documents are developed, the data can be input into the system.

If, during the course of the engagement, either of us becomes aware of circumstances that would preclude a successful conclusion, either party may terminate the engagement by notifying the other party in writing.

Project Staffing

I will head the consulting team and be responsible for the overall management of the engagement. Neal Newley, a senior staff consultant, will be responsible for the engagement's day-to-day conduct.

Project Costs

We base our consulting fees on time actually spent at our standard billing rates, plus any out-of-pocket expenses at cost. We estimate that the first phase of the project will amount to $XX,XXX, depending on the degree of involvement by your personnel. Should anything arise that would adversely affect the performance of the engagement in the prescribed time or within the aforementioned fee range, we will inform you immediately.

If the foregoing is acceptable to you, please return a signed copy of this proposal to me to confirm the engagement. We appreciate the opportunity to present our proposal for your consideration. We believe that we can be of significant assistance to you and welcome the opportunity to do so. If you have any questions regarding this proposal, please do not hesitate to call me.

Sincerely,

____

Ray Richards, CPA

Accepted by ____________________

____

Date

Exhibit 3-2

Sample Engagement Letter

[*CPA Firm Letterhead*]

February 20, 19XX

Mr. Dave Simpson, President
Atlas Manufacturing Corporation
Smithville, Ohio 44114

Dear Mr. Simpson:

This letter outlines our understanding of the arrangements we made in your office yesterday relative to assisting Atlas Manufacturing Corporation in obtaining new financing.

Nature and Scope of Work

We shall perform a study of Atlas Manufacturing's needs and the underlying reasons for these needs. Based on the study, we shall advise you concerning the sources of funds and methods of financing most appropriate to your needs. We shall assist you in evaluating the alternatives and in choosing the source and method best suited to you.

Having determined the amount needed, the purpose, the source, and the method, we shall assist you in preparing a business plan and the other documents necessary to make an effective presentation of your needs to the financing source.

We will assist you in the presentation and negotiation of the financing terms and conditions, as necessary.

Roles

To provide an effective framework for this engagement, both parties must have a clear understanding of their respective roles. Our role encompasses—

- Gathering data about the history and finances of the business.
- Analyzing the business's financial requirements.
- Identifying sources and methods of financing suited to your needs.
- Assisting in evaluating the financing sources and methods.
- Assisting in preparing business plans.
- Assisting in preparing the financing application package (documents).
- Assisting in presentation of the application package and in negotiation of terms and conditions.

Your role encompasses—

- Providing financial and other records and data that we request.
- Making your key people available for interviews and conferences.
- Making timely decisions on the various aspects of this engagement as it progresses.
- Cooperating with our staff in developing the business goals and objectives necessary to prepare a workable business plan.

Our role is essentially one of assisting, evaluating, and advising; while we will exert our best effort, we offer no assurance that financing will be obtained.

Results and Benefits

The tangible results of this engagement will be (1) a written business plan, which clearly defines the goals of the business and outlines the manner in which they are to be achieved and (2) the financing or funding package necessary for adequate presentation of your needs to a financing source. The intangible results of this engagement should include a better understanding of the opportunities and challenges facing the business and the resources available for dealing with them.

Timing and Duration

We are beginning work on this engagement immediately and expect to complete the engagement in approximately ten weeks. This timetable assumes adequate cooperation on the part of your personnel and the ready availability of the information and data required for the preparation of the various documents required by the engagement.

Engagement Completion

We will consider the engagement concluded when all documents necessary for the funding needs presentation are complete and a best-effort presentation has been made. We will provide you with a letter at this time advising you that the engagement is complete. If funding is not received after this presentation and you wish us to assist you in presentations to alternate sources, you may extend this engagement by notifying us of your intent in writing.

If, during the course of the engagement, either of us becomes aware of facts or circumstances that would preclude a successful conclusion of the engagement, one party may terminate the engagement by notifying the other party in writing.

Fees and Payments

Our fees for this engagement are $X,XXX, based on time expended at our standard hourly rates. Any out-of-pocket expenses will be billed in addition to our fees. Our normal practice is to issue invoices monthly for the fees and expenses incurred as the work progresses. Our invoices are payable on receipt.

Conclusion

If any part of this letter differs from your understanding of this engagement, please notify us at once so that we can establish a proper mutual understanding. We appreciate this opportunity to serve Atlas Manufacturing Corporation and look forward to a mutually profitable association.

Sincerely,

____

Jack Todd, CPA

Approved by ________________________

____

Date

Exhibit 3-3

Sample Checklist for MCS Engagement Understandings

MCS proposals and engagement letters need flexibility in content and format to meet the needs of the various engagements and circumstances possible in management consulting services. However, practitioners may find it useful to use a standard checklist in determining which elements of an MCS engagement understanding to include in each proposal or engagement letter. A sample checklist follows. For use with smaller clients, practitioners may wish to combine some of the categories in the checklist.

I. Client background
   A. Restatement of client history
   B. Restatement of client-practitioner conversations
   C. Restatement of client's perception of problem in client's words

II. Engagement objectives
   A. Practitioner understanding about problem
   B. Practitioner understanding about methodology
   C. Practitioner understanding about engagement outputs, in form of—
      1. Written report
      2. Oral proposal
      3. Vendor selection
      4. New system
      5. Other

III. Engagement Scope

   A. Project areas
      1. Department ______________________________
      2. Branch ______________________________
      3. System(s) ______________________________
      4. Other ______________________________
      5. Work specifically excluded from the engagement
      6. All services included in the engagement in detail
      7. Outside considerations on points of reference

   B. Time period from ____________________ to ____________________
   C. Milestones (interim objectives or review points)
      1. Description ______________________________
         Time anticipated ______________________________
      2. Description ______________________________
         Time anticipated ______________________________
      3. Description ______________________________
         Time anticipated ______________________________

D. Standards of performance
E. Professional practice considerations

IV. Engagement approach
A. Steps and their order
1. ______
2. ______
3. ______
4. ______
B. Schedule preparation
C. Documentation preparation

V. Roles
A. Client
B. Practitioner
C. Outside parties

VI. Engagement review
A. Establish checkpoints
B. Allow for possible changes in—
1. Scope
2. Objectives
3. Roles
C. Provide for remedies
1. Resolution procedures
2. Responsibility for change

VII. Engagement output
A. Tangible results
1. Report
2. System
3. Product
4. A method for client to use the output
B. Intangible results
1. Improved employee awareness
2. Improved employee interaction
3. Improved employee attitude
C. Supplemental or peripheral results
1. By-products
2. Human resources enhancement

VIII. Anticipated results and potential benefits
A. Results
B. Potential benefits
C. Possible results short of stated goal
D. Possible ancillary benefits to client
E. Contingencies

IX. Project staffing and scheduling
   A. Anticipated starting date
   B. Anticipated completion date
   C. Client's staff involvement
   D. Project staffing
   E. Flexibility
   F. Contingencies

X. Engagement completion
   A. Definition of project completion
   B. Implementation of recommendations
   C. Events that signal project termination

XI. Fees, billing arrangements, and payments
   A. Basis for accumulating fees
   B. Estimate of total cost
   C. Billing procedures
      1. Method
      2. Frequency
   D. Payment terms
   E. Out-of-pocket expenses

XII. Engagement letter summation (closing)

XIII. Space for client acceptance of engagement

Exhibit 3-4

Illustrative Checklist for Reviewing Letters and Formal Reports

An illustrative checklist for reviewing a letter or formal report follows. Although reports vary depending on the nature of the work, the style of the writer, and the audience, the checklist includes general items to consider before delivering the document to the client.

The checklist is divided into two sections: content and format. The content questions apply to substantive issues about the quality of the engagement work. The format questions deal with report organization, presentation of exhibits and appendixes, and typography.

This illustrative checklist is not meant to be all-inclusive or to address every conceivable type of consulting engagement. If a practitioner or firm has additional criteria, appropriate questions can be added to an internally developed checklist. Moreover, some engagements might not provide written reports, and other engagements might provide written communication in different formats, such as a procedures manual or a bound compilation of computer printouts. In such cases, only a few of the checklist questions may be applicable.

	Yes	*No*	*Not Applicable*
Content			
1. Does the report refer to the original understanding with the client?	______	______	______
2. Does the report need to include the following?			
a. Introduction and background	______	______	______
b. Objectives	______	______	______
c. Scope and approach	______	______	______
d. Statement of compliance with the Statement on Standards for Consulting Services	______	______	______
e. Acknowledgment of cooperation and client participation	______	______	______
f. Benefits	______	______	______
g. Limitations or constraints	______	______	______
h. Findings and observations	______	______	______
i. Conclusions and recommendations	______	______	______
3. Where appropriate, does the report advise the client of critical actions or implementation steps necessary to realize or maintain engagement benefits?	______	______	______

	Yes	No	Not Applicable
4. Do the engagement products conform to the description contained in the original understanding with the client?	____	____	____
5. Were the major recommendations reviewed with client personnel before the report was made final?	____	____	____
6. If client personnel disagree with any major recommendations, should their objections be noted?	____	____	____
7. Does the report identify the data sources and their degree of accuracy and reliability?	____	____	____
8. Does the report contain sufficient facts for the client to evaluate conclusions and recommendations?	____	____	____
9. Were the expected benefits of each recommendation developed with key client personnel and approved by appropriate management staff?	____	____	____
10. Have the assumptions upon which these benefits are based been adequately documented?	____	____	____
11. Has a draft of this report been reviewed?	____	____	____
12. Have technical terms been defined or explained?	____	____	____
13. Are relevant positive findings or observations, as well as negative ones, reported?	____	____	____
14. Is the logic used in selecting the best alternative presented and explained clearly?	____	____	____
15. Are all the exhibits relevant to the report?	____	____	____
16. Does the text of the report refer to all the exhibits?	____	____	____
17. Are the exhibits easy to understand?	____	____	____
18. Does the text of the report include key information from each exhibit so that the reader need not continually refer to the exhibits to understand the report?	____	____	____
19. Are opinions clearly referred to as such?	____	____	____

	Yes	No	Not Applicable
20. Is it clear that the firm is making recommendations and not decisions for management?			
21. Have derogatory statements been avoided?			
22. Have terms such as *will*, *certain*, and *determine* been avoided?			
23. Are proper disclaimers and qualifiers used for—			
a. Forecasts?			
b. Unaudited data?			
c. Outside data?			
d. Report use and distribution?			
24. Does the report cite sources of information?			
25. Will a reader who has not participated in the engagement find the report useful?			

Format

	Yes	No	Not Applicable
1. Is the report addressed to the correct individual, for example, the addressee of the proposal or confirming letter or someone designated by that individual?			
2. Was an outline prepared and reviewed before the report was written?			
3. Are all client names and titles spelled correctly?			
4. Is the report divided into sections that logically follow one another and that facilitate reading?			
5. If statistical tabulations and other exhibits are numerous, are they in a separate section at the end of the report?			
6. If there is an executive summary, does it precede the body of the report or, alternatively, is it in a separate cover letter?			
7. Is the executive summary short and fully supported by the findings and conclusions in the body of the report?			
8. If the report is lengthy or complex, does it contain a table of contents?			

	Yes	No	Not Applicable
9. Are captions and headings used liberally to facilitate reading and understanding?	____	____	____
10. Is one system of main heads, subheads, and sideheads used consistently throughout the report?	____	____	____
11. Has the report been reviewed for correctness in spelling, grammar, and punctuation?	____	____	____
12. Overall, does the report have a high professional quality, demonstrated by the following?			
a. Consistent and adequate margins	____	____	____
b. Centered tables and exhibits	____	____	____
c. Legible type that reproduces well	____	____	____
d. Numbered pages	____	____	____
e. Clean covers	____	____	____
13. Have enough reports been produced for distribution to all appropriate client personnel?	____	____	____

4/100 CONSULTING SERVICES CONTROL AND MANAGEMENT

CONTENTS

4/100 CONSULTING SERVICES CONTROL AND MANAGEMENT

.01 When practitioners provide consulting services, they use technical skills and knowledge gained from exposure to a diversity of business environments and education. No matter what type of service is provided, the structure and conduct of consulting services will vary extensively according to the functions practitioners will perform, the objectives of the service, the nature of the client, and other factors. Nevertheless, there are certain matters common to any type of consulting service rendered that need to be controlled and managed to enhance the professional nature of consulting services.

4/105 CONSULTATIONS

.01 Consultations generally involve the provision of a rapid response to a client inquiry that requires little or no research. This section discusses the role of the practitioner in performing consultations and the need for a clear understanding between the practitioner and the client of the nature of the consultation, the associated limitations, and the expected results.

.02 Consultations may constitute a significant portion of a practitioner's services to a client. Implicit and explicit understandings between the practitioner and the client form the basis of client reliance on the professional advice that is given. A consultation generally is based on the practitioner's existing personal knowledge of the technical matters in question and those aspects of the client's financial, business, and, perhaps, personal affairs to which the inquiry applies. Depending on the inquiry, the practitioner's response may be immediate or may be made after reference to client file information and technical source materials, discussions with colleagues, or consideration of the advantages, disadvantages, and financial consequences of available alternatives.

.03 Consultations may occur concurrently with the performance of other professional services, such as audit, review, or compilation of financial statements or tax services. Consultations also may be the only type of service provided to a client. They may entail advice concerning a single matter or continuing consultations on a wide variety of matters. Consultations may occur casually in telephone conversations, take place in nonbusiness settings, transpire during periodic meetings at the client's or practitioner's offices, or may entail specific written inquiries or responses.

.04 Examples of consultations include advice in the form of explicit recommendations, guidance on a suggested course of action or method of inquiry, limited analysis of options or the advantages and disadvantages of alternative actions, and fact-finding in the form of limited technical research on a specific matter.

The Practitioner's Role in Consultations

.05 In the conduct of a consultation, the consulting services practitioner usually functions as a general business advisor presenting recommendations to a client faced with decisions to make. The circumstances under which the service is provided require the practitioner to recognize and seek to minimize the possibility that the client erroneously concludes that the practitioner has—

- Assumed responsibility for making the required decisions.
- Guaranteed, through recommendations, the benefits the client seeks.
- Based the advice on full consideration of all relevant information.

Client Understanding and the Communication of Results in Consultations

.06 In consulting services consultations, the client inquiry, the understanding between parties, and the practitioner response often occur in the same conversation. In such an environment, the practitioner, the client, or both may presume that the other has a knowledge and understanding of pertinent matters that were not actually communicated. The consulting services practitioner needs to recognize this possibility of misunderstanding and take reasonable steps to prevent it by giving attention to such matters as—

- The specific or general nature of advice sought.
- The impact of the advice on finances and operations.
- The limitations, lack of certainty, or incompleteness of the information.
- The complexity of the inquiry, the advice, or the conditions or qualifications that might attach to the practitioner's response.

.07 The nature and form of communication with a client in a consulting services consultation is a matter of professional judgment. In many cases, especially in connection with the practitioner's general advisory role, circumstances will dictate that the understanding with the client and the practitioner's response be oral. In some cases the circumstances of a consulting services consultation justifies written communication to the client. For example, the practitioner may wish to communicate the importance of specific actions the client may have to take as a result of the consultation. If the communication to the client is not in writing, the practitioner considers the need for a file memo to have a record of the conversation and the advice given to the client.

Client Satisfaction

.08 As with other consulting services, the practitioner needs to consider the effectiveness of consultations. The practitioner can gauge client satisfaction through the amount of billings to a client, a reduction in write-offs, the number of times this service is provided to a client each year, and, of course, feedback from the client.

.09 Unless practitioners keep records of all consultations, they may be unable to assess whether the value of the service provided corresponds to the billing. Another way to qualitatively gauge the effectiveness of the consultation is to track the number of calls received from the same client on other business matters.

4/110 ADVISORY, IMPLEMENTATION, AND TRANSACTION SERVICES

.01 Consulting services also involve advisory, implementation, or transaction services that are generally lengthy in duration and require extensive skills and knowledge to plan and perform. These services differ from consultations and generally are provided in an engagement. The engagement form of consulting services delivery typically involves more than an incidental effort in which an analytical approach and process are applied and results are communicated formally. Furthermore, engagements involving these services usually require more structured methodologies than do other consulting services. There are several factors a practitioner needs to consider in accepting, planning, and performing engagements to provide these services. In discussing the administrative aspects of these services, this section focuses on the four phases of the typical engagement:

- Preengagement considerations
- Engagement planning
- Engagement management and execution
- Engagement conclusion

Each of these phases consists of a series of activities and tasks that generally occur sequentially. In addition, each might encompass activities, tasks, and considerations unique to a specific service or to a certain type of service. This section, however, focuses on the activities and tasks that are common to engagements involving these services.

Nature of Advisory, Implementation, and Transaction Services

.02 **Advisory Services.** Advisory services usually involve detailed studies to develop findings, conclusions, and recommendations for client consideration and decision making. They often require a significant understanding of the business operations and unique aspects of the client's industry. Some services require specialized technical knowledge of areas that go beyond the scope of accounting, such as compensation and benefits planning, systems design, marketing and engineering.

.03 Advisory services may follow a consultation and precede implementation services. Client personnel may be assigned to the project team. They can bring considerable knowledge to the project's activities and can play a critical role in the acceptance and implementation of final recommendations. The consulting process associated with advisory services typically involves determination of client objectives, fact-finding, definition of the problems or opportunities, evaluation of alternatives, formulation of proposed action, implementation, communication of results, and follow-up. Except for the steps of implementation and follow-up, the process just described often gives the engagement its structure.

.04 Advisory services generally conclude with a written report that may include the project's objectives, the approach taken to perform the project, the data acquired, conclusions and recommendations, and a plan for implementing recommendations.[1]

.05 **Implementation Services**. Implementation services are primarily concerned with getting things done — putting into operation a plan or recommendations the client has accepted. These services can include implementing operational audit recommendations, an incentive compensation system, a new organizational structure, or an improved computer system. The success of the implementation services may relate directly to the quality and completeness of any preceding advisory services. In some cases, the practitioner may be engaged to perform an implementation service without having provided advisory services.

.06 Implementation services engagements may be quite complex and are generally administered with a detailed action plan that lists steps to be performed and specifies the person responsible for each step, the budgeted time, and the deadline. In a large engagement, a majority of the project team may come from the client's ranks. The practitioner usually manages the implementation engagement but occasionally may provide only functional and technical expertise. In an implementation services engagement of smaller scope, however, the project team may consist of the practitioner alone. Although implementation services focus on action rather than reports of findings and recommendations, it is useful to end the engagement by advising the client of its completion and summarizing its accomplishments in writing in a completion notification letter (see ¶ 3/125.06).

.07 **Transaction Services.** Transaction services relate to a specific client transaction and generally involve a third party. Examples of these services include, insolvency services, business valuations, preparation of information to obtain financing (excluding development of historical or prospective financial statements), analysis of a potential merger or acquisition, and litigation services.

.08 Transaction services do not focus on improving the economy, efficiency, or effectiveness of an organization. Instead, they are concerned with a current or probable transaction, although the practitioner's functions may include other consulting services. Written reports may include the practitioner's own findings and conclusions, which are not an attestation to someone else's assertions.

[1] For a government organization, the practitioner may have to meet certain advisory standards such as included in the Government Accounting Office's publication *Government Auditing Standards*.

Preengagement Considerations

.09 Preengagement activities play an important role in establishing an understanding between the client and practitioner and in enabling the practitioner to become familiar with the client's environment. In developing a management consulting services (MCS) engagement control program, a firm should consider establishing policies and procedures that deal with the period prior to engagement acceptance, starting as early as the initial contact.

.10 The nature of an initial contact with a client or potential client will vary considerably. It may involve the receipt of a formal and detailed communication containing extensive background information, such as a request for proposal (RFP) issued by a governmental body, or it may be in the form of a comment from a client or potential client about a business problem or specific consulting work to be done. The practitioner's response will depend on the circumstances of the initial contact. Certain activities, however, are common to the preengagement phase of many MCS engagements.

.11 This section discusses the activities of the CPA firm during the preengagement period. These activities fall into the following categories with subordinate tasks:

.12 *Definition of the Engagement*

- Initial assignment of responsibility
- Review of background
- Preliminary survey
- Determination of the engagement's nature, scope, and objectives

.13 *Decision to Pursue the Engagement*

- Acceptance of the client
- Initial understanding of client benefits
- Determination of the ability to complete the engagement

.14 An illustrative control form for the entire engagement acquisition process, from initial contact through proposal, is provided in exhibit 4-1 in appendix 4.

.15 **Definition of the Engagement.** Engagement definition usually involves determining the preliminary response to a request for assistance. The request may sometimes include problem statements that are unclear or not specific. The effort to determine an appropriate response sets the direction for the engagement. Engagement definition is equally important when the practitioner is recommending an MCS engagement to the client. A misperception or misunderstanding of what the MCS practitioner is being engaged to accomplish will have a negative effect on the engagement. A firm's MCS engagement control program can help guide practitioners in obtaining a better understanding of the client's needs and the work to be done.

.16 A client may define an engagement when requesting a practitioner's assistance. However, the practitioner's judgment and experience may indicate that the client's perceptions of the problem or suggested method of pursuing the solution may not lead to the desired results. A control program can help ensure that a practitioner sufficiently evaluates the situation rather than proceeding solely in accordance with the client's definition. To make sure of adequate evaluations, the control program needs to include policies and procedures to guide the practitioner in performing pertinent reviews and research prior to developing an engagement proposal or plan.

.17 General key tasks within the engagement definition activity provide control opportunities. These tasks are initial assignment of responsibility, review of background, preliminary survey, and determination of the engagement's nature, scope, and objectives.

.18 *Initial assignment of responsibility.* MCS engagement development entails control and coordination by an individual who can make decisions about accepting consulting engagements. Identifying the individual to be responsible for proposal development and planning can provide control over subsequent preengagement client contacts and the engagement definition activity (for example, background review, survey, and determination of the scope and objectives).

.19 In many cases the individual assigned to proposal development and planning may also be responsible for subsequent activities in the MCS engagement cycle, such as making the decision to pursue the engagement and planning and conducting the engagement. In other cases different individuals may be assigned subsequent engagement responsibilities. For example, a person with certain technical skills may be required for quality assurance.

.20 *Review of background.* A review of available pertinent background material is useful before undertaking an MCS engagement. If the prospective engagement is for a current or former audit, tax, or MCS client, discussions with personnel familiar with the client, as well as reviews of past management letters, previous engagement work papers, annual reports, and other available material, are frequently of value. Researching publicly available information about the client and the client's industry is sometimes helpful in understanding the client's operations and problems and in establishing a better rapport with the client. Such reference materials will also be helpful to other individuals who become involved in later phases of the engagement.

.21 *Preliminary survey.* A preliminary survey of the client's situation is often a good way to develop the engagement definition. Such a survey may vary in complexity. It may even be phase 1 of an engagement, with the engagement definition for subsequent phases to be developed after the survey is completed.

.22 A prospective client, in many cases, may have already diagnosed the problem or may have an understanding of the engagement's objectives and the anticipated work the MCS practitioner will perform. However, the client's diagnosis may be based on incomplete data or an incomplete analysis of the situation, or it may lack objectivity. Therefore, a practitioner's review of available data and an analysis of the situation can be useful.

.23 The results of a survey often enable an MCS practitioner to suggest alternative courses of action. These may change the client's initial conception of the anticipated work or even the engagement's objectives.

.24 Deciding whether to perform a preliminary survey usually involves considering —

- The client's ability to correctly define the problem or the work required and reviewing the bases of the client's conclusions.
- The complexity of the problem.
- The potential risk involved in undertaking the engagement without a survey.
- The survey's cost in light of the potential scope of the engagement.
- The practitioner's experience with the client and the client's industry.

.25 A preliminary survey involves performing work necessary to define the engagement. It may include —

- Developing a survey plan to independently evaluate client operations.
- Contacting appropriate client personnel to secure needed information.
- Resolving any issues that affect the development of the engagement definition.

.26 *Determination of the engagement's nature, scope, and objectives.* An initial view of the engagement's nature, scope, and objectives may be obtained through discussions with client personnel, a request for proposal, or a preliminary survey. However, analysis of the information gathered sometimes produces alternatives to the client's suggestions that may be more appropriate or more feasible under the circumstances. The practitioner and the client need to reach an early understanding on the nature, scope, and objectives and to agree on a method for handling any later changes in the initial understanding.

.27 **Decision to Pursue the Engagement.** One of the most critical control points in the MCS engagement process is reaching a decision about whether to pursue the prospective engagement. Appropriate engagement control procedures can play an important part in helping a firm avoid an undesirable or inappropriate engagement and in limiting the possibility of inadvertently declining an acceptable one.

.28 The decision to pursue an engagement will depend on the answers to such questions as the following:

- Can the client benefit from the engagement?
- Will the firm's role in the engagement be an appropriate one?

- Is the nature of the required work acceptable to the firm and consistent with professional standards?
- Is the firm competent to perform the required work?
- Can the required work be performed at a cost acceptable to the client?
- Can the work be completed within a time frame acceptable to both the practitioner and the client?
- Is the client likely to accept and implement appropriate recommendations?
- Is there any other reason the firm would not want to undertake this engagement?

.29 Within the decision-making process there are several tasks that can help to answer these questions. These tasks also present opportunities to establish engagement controls. As previously outlined, the tasks are acceptance of the client, initial understanding of client benefits, and determination of the ability to complete the engagement.

.30 *Acceptance of the client.* A firm carefully considers whether accepting an engagement might result in an undesirable association. Although a firm does not vouch for the integrity or reliability of a client, it considers whether the reputation of a client's management could reflect on the reliability of representations made by that management and on the firm's own reputation. The firm's relationship with others, such as competitors of or major suppliers to the potential client, may be considered. A firm would also be concerned with the prospective client's ability to pay for the services rendered. Therefore, a firm's MCS engagement control program can communicate to its practitioners how prospective clients are to be reviewed in terms of reputation, relationship to other clients, and financial condition. Such a review might involve the following steps:

- Request information from appropriate third parties that may have a bearing on the prospective client and its management.
- Obtain and review available financial information to determine that the prospective client has the ability to pay for the engagement.
- Consider how the prospective client's competence may affect the success of the engagement.
- Consider any circumstances that make the prospective engagement one that presents unusual risk or questions of propriety.

.31 The firm's objectivity and independence[2] are also considerations in the decision. The firm might wish to establish the practice of communicating information about prospective MCS engagements to appropriate personnel so that any potential conflicts can be discovered before an engagement is accepted. An Engagement Notice is provided in exhibit 4-2 in the appendix.

.32 *Initial understanding of client benefits.* Typically an MCS engagement occurs only if a prospective client believes it will benefit from engaging the CPA firm to do certain work. However, benefits are often difficult to quantify and may be intangible. Therefore, the skill with which a practitioner identifies potential benefits and engagement costs, and communicates them to the prospective client, may determine whether there will be an MCS engagement for the firm.

.33 The expected benefits also become the key criteria against which the client will measure the success of the MCS engagement. Any reservations the practitioner has about expected benefits should be communicated to the client to ensure that an understanding about benefits will be reached.[3] A firm's engagement control program may direct its MCS practitioners to —

- Weigh, if possible, the expected benefits against estimated engagement costs.
- Consider the prospective client's willingness to accept recommendations and its ability to implement them.
- Communicate to the prospective client any reservations concerning the ability to achieve expected benefits.

.34 *Determination of the ability to complete the engagement.* A practitioner determines the nature, scope, and objectives of a potential MCS engagement before deciding to pursue it. Matters to be considered would include personnel, equipment, and time requirements as well as engagement constraints, such as a deadline for the completion of the work. For example, the firm may find it appropriate to direct its practitioners to —

- Identify the tasks that should be accomplished to successfully complete the engagement.
- Conduct a skills inventory by matching the industry, experience, technical, and personnel requirements of the potential engagement with firm personnel.
- Determine if required resources will be available at the required time and in the required numbers.

[2] See SSCS No. *1, Definitions and Standards* (New York: AICPA, 1991), paragraph 6 and footnote 2.

[3] See the sections concerning client benefits in SSMAS No. 1, paragraph 6, and SSMAS No. 2, *MAS Engagements* (New York: AICPA, 1982), paragraphs 21-23.

- Identify the tasks to be performed by the client and its ability to complete them.
- Identify those parts the client must complete and assess their ability to complete them.
- Determine if additional resources needed can be obtained from outside the firm.

Engagement Planning

.35 When a decision to pursue an engagement is reached, emphasis shifts from the nature of the engagement to a plan and arrangements for effectively and efficiently completing the engagement. This section deals with converting information gathered in the preengagement phase into a specific plan and arrangements for conducting the engagement. Arrangements often include the overall schedule, assignment of responsibilities to firm and client personnel, fees, and use of client facilities.

.36 In reaching the decision to pursue an engagement, the firm usually should have developed—

- An adequate understanding of the client's business environment.
- An understanding of the engagement's nature and scope.
- A tentative approach to attaining the engagement objectives.
- An assessment of the firm's ability to complete the engagement successfully.

.37 At this point the nature and extent of available project information may vary considerably and may not yet be sufficient to provide the MCS engagement director with a clear understanding of the detailed engagement work steps, staff, and schedule. If this is the case, the MCS engagement director can conduct further research and analysis that would enable the firm to reach an understanding with the client.

.38 Elements that are generally considered in the planning process include:

- Engagement approach
- Estimates of time and effort
- Anticipated needs for firm supervision and staff functions
- Determination of project control points
- Expected frequency and form of reporting
- General responsibilities of client management and client personnel assignments
- Tentative arrangements for client decision making and liaison
- Fee estimates
- Use of outside specialists
- Provisions for changing the engagement plan

.39 The planning process goes on throughout an MCS engagement because plan revision may occur as more facts become known or in response to changing circumstances or changes in the engagement definition. The level of planning detail and documentation will vary with the size, complexity, personnel, and circumstances of the engagement.

.40 The following engagement activities and tasks will be discussed in this section:

.41 *Developing an Initial Engagement Plan*

.42 *Reaching an Understanding With the Client*

- Choosing the form of communication
- Reviewing the information to be communicated

.43 *Preparing a Detailed Engagement Work Program*

- Developing the program
- Reviewing the program
- Communicating information that differs substantively from the initial understanding

.44 **Developing an Initial Engagement Plan.** Initial engagement plan development is a key activity in the process of planning and conducting an MCS engagement. It is often done when there is no assurance that the firm will be engaged. When conducted in an appropriate and timely manner, initial engagement planning can enhance the possibility that the firm will be engaged, and it can also benefit the later conduct of secured engagements. A detailed engagement work program generally builds upon a foundation supplied by an initial engagement plan.

.45 An initial engagement plan is a translation of the engagement definition into steps required to meet the objectives of the proposed project. Generally, an engagement plan covers gathering and analyzing data; developing, testing, and evaluating courses of action; presenting findings and recommendations; and, when appropriate, assisting in implementation. However, implementation assistance may be a separate engagement.

.46 If there is a high degree of certainty about securing an engagement, a detailed engagement work program might be prepared as part of the initial engagement plan. The preparation of a detailed work program is discussed later in this section, but its content is often considered in the initial engagement planning process.

.47 A firm may wish to establish control policies and procedures for initial engagement plan development to help ensure that planning is conducted, supervised, and documented according to firm policies. For example, the firm may want to specify (*a*) that an initial engagement plan be sufficiently detailed to achieve an understanding with the client and (*b*) that the intended MCS engagement director should, to the extent possible, participate in its preparation. Exhibits 4-3 and 4-4 in the appendix provide illustrative forms for initial engagement planning.

.48 The firm may also wish to establish a procedure to ensure that an initial engagement plan is reviewed, whenever possible, by appropriate firm personnel who have performed similar services for other clients. For example, a firm might develop an engagement index, report library, or other similar sources that would provide access to data from prior engagements of a similar type or for the same industry or client.

.49 Reaching an Understanding With the Client. Agreeing on arrangements and communicating with the client about the engagement plan are part of the process of reaching an understanding. Each engagement is a contract, either expressed or implied, in which a firm agrees to perform certain services for a client and to accept certain responsibilities. If this agreement is formalized in writing, there is less chance of a misunderstanding between the firm and the client.

.50 The benefit of MCS engagement controls relating to the understanding with the client will vary according to the size, type, and risk of a specific MCS engagement. However, a firm might want to establish policies and procedures to help ensure that arrangements are appropriate to the MCS engagement and are documented and communicated to the client according to firm practices.

.51 Choosing the Form of Communication. Clients can be informed of significant matters related to an MCS engagement through a proposal letter, a confirmation letter, an engagement letter, a contract, or an oral understanding, which might be documented in a file memorandum. The following communication methods might be addressed in an MCS engagement control program.

- *Proposal letter*, which is an offer of services. When accepted, it becomes a contractual agreement. The proposal letter generally covers engagement objectives, potential benefits, other elements of the proposed engagement plan, and arrangements that the client should know about in order to make an informed decision concerning acceptance of the proposal. If subsequent events require alteration of the initial letter, amendments can be made provided written confirmation is obtained.
- *Confirmation letter*, which is a brief and concise statement of an agreement previously reached with a client. It might reflect changes to a proposal letter or outline a discussion of significant engagement matters.
- *Engagement letter*, which is a contractual agreement used primarily when the client has already agreed that the firm will undertake the project. The letter documents the understanding, including objectives, benefits, plans, and arrangements, in about the same level of detail as might appear in a proposal letter.
- *Contract*, which is a legal document generally prepared by the client, often incorporating a proposal letter or an engagement letter prepared by the firm.
- *Oral understanding*, which is an understanding of an MCS engagement that may be reached when the client views a written proposal or engagement letter as unnecessary or undesirable. In such cases, however, it may still be desirable to document the understanding in a memo to the file for the benefit of other firm personnel who may become involved in the engagement, and to consider sending a copy of the memo to the client.

.52 **Reviewing the Information to Be Communicated.** Proposal letters, engagement letters, and other key communication documents to the client can significantly affect the success of an MCS engagement. Factual or computational errors, ambiguities, inconsistencies, incompleteness, and poor language, all create the potential for misunderstanding. In addition, they might result in the firm's not being engaged at all. Therefore, depending upon the complexity and amount of information to be communicated, letters might need to be reviewed from technical, editorial, policy, and legal perspectives. A firm may wish to establish policies and procedures to ensure that all letters are reviewed (*a*) by an appropriate person other than the drafter before being submitted to the client, and (*b*) by administrative or technical personnel or legal counsel in certain circumstances.

.53 An oral understanding of engagement plans is difficult to review if a written initial engagement plan or work program is not prepared. When engagement circumstances or the client's desires dictate that an oral understanding not be confirmed in a letter, a firm may wish to exercise control by requiring that a memo to the file be prepared and reviewed or that an additional firm representative attend the oral presentation.

.54 **Preparing a Detailed Engagement Work Program.** A detailed engagement work program is a result of the planning process. Preparation of the detailed engagement work program entails formalizing and elaborating on the approach to the project developed during the preengagement and initial engagement planning activities.

.55 Detailed engagement work programs are useful because they —

- Provide a means for arranging, distributing, and assigning responsibility for various segments of an engagement.
- Provide a means of control for determining whether all segments of the engagement have been completed.
- Provide the framework for reporting progress and meeting deliverable dates on an engagement.
- Facilitate the establishment of time and efficiency controls over engagement personnel.
- Assist with engagement review.

.56 As indicated earlier in this section, a detailed engagement work program may be prepared before a proposal or engagement letter is submitted to the client when the firm has a high degree of certainty that an engagement will be secured. However, initial engagement planning usually involves consideration of most of the factors examined in developing the detailed engagement work program; this is generally necessary in order to estimate the fee and prepare the proposal or engagement letter. Details or documentation useful in executing the engagement, however, may not be developed until after the engagement is secured, at which time a detailed engagement work program may be prepared for the first time.

.57 In many cases, elements of the detailed work program will have been developed in varying degrees prior to formalization of the program, and refinement or revision of the program will continue throughout the engagement. The degree of detail in an engagement work program may vary considerably, based on the circumstances of the specific engagement, firm policy, and professional judgment.

.58 A detailed engagement work program can serve as a master plan for the engagement and the framework for controlling its progress. It can be a planning tool that actually documents how the engagement will be carried out, organizes the engagement into scheduled sequences, and indicates the various tasks necessary to achieve the intermediate goals as well as to obtain the final product. It might allocate the engagement time by task and assign specific tasks to particular staff members. However, not every engagement may entail development of such a program.

.59 Excerpts from a very detailed engagement work program, including a Gantt chart used to display the task/time/responsibility relationship, are provided in exhibits 4-5 and 4-6 in the appendix. An illustrative work program form is provided in exhibit 4-7.

.60 A firm may wish to establish policies and procedures concerning the development of detailed engagement work programs. This can help ensure effective planning prior to the performance of every MCS engagement that is expected to exceed a certain number of work days or meet other specific criteria.

.61 Preparing a detailed engagement work program includes three major tasks: developing the program, reviewing the program, and communicating information that differs substantively from the initial understanding

.62 **Developing the Program.** The detailed engagement work program, which can take many forms, could include—

- A statement of the engagement's objectives, scope, and approach (or a copy of the proposal, engagement letter, or file memo, which includes this information).
- A breakdown of what is to be studied and the various activities and tasks to be performed, including data to be gathered, client contacts, supervision, output, and so forth.
- Staffing requirements, including assignments and responsibilities of personnel; schedules and allocations of time to perform specific tasks, including starting and completion dates.
- Client participation in various engagement activities and tasks and client engagement responsibilities, if any, to be integrated into the schedule.

.63 To provide guidance, a firm may also wish to develop standard forms and sample engagement programs for various types of engagements.

.64 One of the key reasons for developing a detailed MCS engagement work program is its usefulness as a control tool for staff assignments and supervision. As indicated earlier, the decision to pursue an engagement and the initial planning for it are often based on certain expectations concerning the availability of appropriately skilled personnel. In some cases a proposal letter may even include the names, backgrounds, and skills of the specific individuals who may be assigned to the engagement.

.65 Notwithstanding all of the above, actual staff assignments cannot be made until the firm is ready to begin the engagement. Although a proposal letter may earmark specific individuals, either the prospective client's delay in responding to the proposal or staff turnover could make those individuals unavailable when the engagement begins or when an individual's assignment in the engagement is to be performed. Every effort is normally made to utilize personnel in accordance with prior plans, but it is not always possible.

.66 The success of an MCS engagement can often be directly related to the qualifications of the individuals performing and supervising the engagement tasks, including report preparation. Therefore, staff selection tries to match the specific engagement requirements with appropriate personnel, drawing on internal firm resources when possible but calling on appropriate external sources when necessary. The inability to meet personnel requirements could result in a firm's withdrawing from an engagement.

.67 Care is exercised by firms in the selection of staff and supervisory personnel. One procedure that could help simplify the selection process would be establishing a skills inventory of personnel. An individual responsible for staffing an engagement could then more easily determine who has the required skills or experience. The skills inventory might include such categories as technical skills (for example, minicomputer installation), industry knowledge (for example, banking), and functional knowledge (for example, marketing). Names of personnel would be listed under each category. When making assignments, the staff selector could then consider the education, previous experience, and previous engagements of each listed individual.

.68 A detailed MCS engagement work program would help match skills and abilities to the engagement requirements and work schedule. The program would then provide a control during the engagement to help ensure that the designated tasks are completed by the assigned people at the scheduled times.

.69 **Reviewing the Program.** Generally a detailed engagement work program is developed by the engagement director. In many instances, the individual assigned this responsibility would have been involved in the preengagement client contacts and any preliminary survey. A firm may wish to establish policies and procedures specifying when persons responsible for the development of detailed MCS engagement work programs should have the draft programs reviewed by someone with appropriate technical, industrial, and client knowledge.

.70 There may be others in the firm with equal or greater applicable experience who could be consulted in the preparation of the detailed engagement work program. Additionally, there may be others in the firm who have provided different services for the client—MCS, audit, or tax—and whose knowledge of the client's personnel and operations could be valuable in preparing the engagement work program. These sources can often be helpful in improving the conduct of the engagement. If they are contacted during the initial engagement planning, information they provide can generally be reviewed again during preparation of the detailed engagement work program.

.71 **Communicating Information That Differs Substantively From the Initial Understanding.** The development of a detailed engagement work program for an MCS engagement may, in itself, result in potential changes to the objectives, scope, approach, staffing, timing or fees agreed upon in the initial understanding. Careful development of the detailed engagement work program may establish the advisability of making such changes in order to increase the likelihood of a successful engagement. If the changes relate to information already communicated to the client, it is appropriate to discuss the changes with the client before proceeding. At this point a contractual relationship already exists with the client, and such changes are, in effect, amendments to the contract.

.72 An MCS engagement control program could include procedures to help assure a firm that if the actual work planned and conducted deviates significantly from the initial understanding reached with the client, such changes will be communicated to the client and records of any agreements that change the initial understanding will be maintained. Such changes may also occur during the engagement execution phase.

Engagement Management and Execution

.73 The preceding sections, "Preengagement Considerations" and "Engagement Planning," included discussions of MCS engagement activities that might be performed even when a potential engagement is not secured and there is no agreement for the firm to perform any work. This section discusses the activities that take place once there is an agreement and the firm is committed to performing certain work.

.74 A review of engagement activities discussed in the preceding sections can contribute to a better understanding of the significance of the material in this section. Relevant activities and considerations include the following:

- Reviewing client operations, analyzing any prior work, and collecting preliminary data
- Defining the engagement's scope, nature, and objectives
- Assigning an engagement director
- Developing an initial engagement plan
- Reaching an understanding with the client about engagement plans and arrangements
- Developing a detailed engagement work program, if appropriate
- Assigning staff

.75 The following key activities and tasks relating to management and execution of an MCS engagement are discussed in this section.

.76 *Engagement Management*

- Providing for engagement supervision and review
- Managing project personnel
- Monitoring client satisfaction and understanding, including perception of benefits
- Maintaining the engagement plan and monitoring progress

.77 *Engagement Execution*

- Information gathering
- Information analysis

.78 **Engagement Management**. Engagement management involves the effective use of the project team so that the conduct of the engagement meets requirements relating to scope, objectives, schedule, and work program and conforms to firm policies. The four tasks within the engagement management activity are considered separately.

.79 *Providing for Engagement Supervision and Review.* An MCS engagement control program can help ensure adequate fulfillment of assigned supervisory and review responsibilities. Supervisory responsibilities related to the day-to-day conduct of the engagement generally include the assignment and execution of all planned activities and tasks. Review responsibilities involve after-the-fact consideration of what has been done. An engagement director fulfills both responsibilities by supervising current engagement activities and reviewing prior engagement activities in an effort to complete the engagement satisfactorily.

.80 Although supervisory responsibilities are carried out by the engagement director and others on the team, a firm may decide it is desirable, whenever possible, to augment the engagement director's review with one or more reviews performed by individuals not on the project team. Table 4-1 lists some engagement aspects generally subject to periodic review and suggests potential reviewers. The engagement aspects and the list of potential reviewers are intended as illustrations only. One or more individuals may review engagement aspects, as appropriate to the circumstances. Professional judgment should play an important part in tailoring review requirements to a specific engagement.

.81 A firm's MCS engagement control program could —

- Identify engagement aspects that the firm thinks should be reviewed.
- Identify potential reviewers.
- Provide guidance and procedures for arranging reviews.

.82 A firm may also wish to establish a postengagement review process which is beyond the scope of this practice aid which deals only with controls that can be exercised during an engagement.

.83 A firm's MCS engagement control program could provide guidance on how to carry out the firm's review policy. Decisions might include such factors as what (material), who (reviewer), how much (extent), when (timing), and why (benefits). Additional factors are the degree of responsibility assigned to a reviewer and the use of reviews as part of a staff development program. Circumstances that might influence the choice of review alternatives in a specific engagement include —

- Experience and expertise of the project team members.

- Financial or other operation implications for the client.
- Complexity of the technical issues under review.

.84 Although firm resources are most frequently drawn on for such reviews, there are situations in which outside technical expertise can be used to advantage. Sources for such expertise would include other CPA firms, management consulting firms, universities, and other individuals or organizations with recognized technical proficiency in the given subject area. Client personnel also often play significant review roles in MCS engagements.

Table 4-1
Engagement Review Aspects and Potential Reviewers

Engagement Aspects to Consider for Review

- Assignment and conduct of tasks
- Preparation of reports and other deliverables
- Progress in meeting engagement objectives and plans
- Consistency of key findings, conclusions, and recommendations as well as special technical issues
- Sensitivity of recommendations to client environment, needs, and understanding
- Meeting the firm's engagement control goals

*Potential Reviewers**

- Engagement director
- Client partner—the individual responsible for overall services to the client
- Other designated general reviewers
- Appropriately qualified technical reviewers other than those assigned to the engagement; internal or external not including client personnel
- Client-designated contacts
- Client-designated steering committee

* One or more of the potential reviewers may review any of the listed aspects, or one individual may review a number of the aspects, depending upon circumstances and reviewer resources.

.85 *Managing Project Personnel.* A firm may wish to establish separate policies and procedures related to the effective use of MCS project personnel. The administrative procedures for managing personnel will vary with the circumstances of the engagement, including such factors as number of people involved, degree of client contract and relationships, and each person's length of assignment to the project and level of experience.

.86 The location and duration of the engagement may also affect personnel and their performance. An MCS engagement control program may provide engagement directors with guidance concerning appropriate and timely action if the attitudes or activities of engagement personnel should begin to have an adverse effect on an engagement.

.87 **Monitoring Client Satisfaction and Understanding, Including Perception of Benefits.** A firm may wish to establish policies and procedures to ensure that the engagement director monitors those engagement-related attitudes and activities of the client that may affect the success of the engagement. These client attitudes and activities include:

- Understanding of the engagement's objectives and deliverables
- Recognition of and reaction to actual or perceived changes in the engagement's scope
- Reaction to the project's progress and perceived benefits
- Interaction with project personnel
- Changes in organization
- Changes in operations (possibly resulting from early implementation of recommendations)

.88 Since such information will help both the firm and the client to monitor the engagement's potential results, the control program could include a requirement for the client partner to communicate periodically with the client concerning project progress and problems encountered. The practice of interim billing for completed segments of an engagement will also provide an effective means of gauging a client's attitude toward the engagement's progress.

.89 **Maintaining the Engagement Plan and Monitoring Progress.** A firm may wish to establish procedures to help ensure that an engagement is progressing in accordance with plans or with the detailed engagement work program, if there is one. A work program can be a key aspect of engagement control. A detailed program, with specific steps and schedules, can make it easier to determine whether the engagement is proceeding as planned and whether the findings or results are consistent with the understanding established with the client.

.90 Consideration should be given to maintaining documents that record hours expended by each project team member for each engagement task, in order to facilitate review of the use of resources and to help identify deviations from the engagement scope or work program. When significant changes in scope occur, it would be appropriate to review them with the client and to have the work program subsequently reflect them. The work program and time control documents may be combined, as is illustrated in the engagement time control form provided in exhibit 4-8 in the appendix.

.91 **Engagement Execution.** MCS engagement execution involves two major tasks—information gathering and information analysis, which includes developing recommendations. An MCS engagement control program can include procedures to help ensure that information gathering and information analysis are performed in keeping with client-firm understanding and the firm's policies. An engagement control form which includes a checklist for use during the engagement process is provided in exhibit 4-9 in the appendix.

.92 **Information Gathering.** A clear definition of the engagement is important so that sufficient relevant data can be identified and collected. Information gathering involves—

- Determining the nature and extent of information to be collected.
- Locating the sources of the needed information.
- Recording the information and documenting the process.

Each of these three aspects of the information-gathering task may be considered separately during the development of MCS engagement control policies and procedures.

.93 The nature or extent of the information may complicate the gathering process. For example, the practitioner deals not only with numerical data, but also with subjective information, such as impressions drawn from interviews and representations about future events.

.94 The sources of information will affect the information-gathering process in several ways. MCS engagement control policies or procedures could provide guidance about reliance on data supplied by the client or by other sources.

.95 Administrative control over the information-gathering task involves the firm's policies concerning documenting facts, recording observations, and retaining pertinent information and materials gathered during an MCS engagement. The firm could prepare guidelines that would assist in communicating those policies.

.96 **Information Analysis.** Converting information and judgments based on the MCS practitioner's prior experience and knowledge into conclusions and recommendations can often be difficult. It is a process in which the effective practitioner consolidates a considerable amount of information, avoids marginal or peripheral issues, understands underlying relationships and trends, knows when to apply appropriate analytical techniques, and gauges when and how to present the key issues and recommendations to stimulate client action.

.97 Analysis is a logical, systematic process that includes the following tasks:

- Classifying the information gathered
- Determining causal relationships
- Identifying key variables

- Discovering problems or opportunities
- Developing and evaluating various courses of action
- Recommending a course of action

.98 MCS engagements usually entail the use of an analytic process that begins with information gathering and concludes with the presentation or implementation of the recommendations. Careful analysis can provide a more logical basis for conclusions and recommendations than intuitive judgments, consensus techniques or negotiated courses of action, although the analytic process may also draw on these other approaches to problem solving.

.99 A major advantage of the analytic process is that it can be reviewed by others to determine if there are flaws in the reasoning that led to the conclusions or recommendations. This would not be possible with an intuitive approach, although the conclusions reached may be quite correct. A firm may wish to establish the use of forms and procedures to help ensure that an analytic process is used in reaching conclusions and recommendations.

Engagement Conclusion

.100 Each activity in an MCS engagement is a step toward achieving the objectives and thus concluding the engagement. This section provides a framework for MCS engagement control in the communication of results to the client. Such communication typically includes recommendations (with alternatives) and suggestions for, or assistance in, implementing them. In this phase of the MCS engagement process, a review of recommendations and documentation may precede the communication of results, and an assessment of client acceptance may follow it.

.101 This section also discusses how a firm can obtain reasonable assurance that relevant engagement control policies and procedures were followed properly during the engagement.

.102 The following activities and tasks are part of the MCS engagement conclusion:

.103 *Final Review of Engagement Results*

- Consultative review with the client
- Technical review
- Consulting service director's review
- Objective general review

.104 *Communicating Engagement Results*

.105 *Engagement Follow-on*

- Assessing client acceptance of engagement results

- Confirming project completion

.106 **Final Review of Engagement Results.** In the final review of engagement results, the firm is effecting completion of relevant tasks, reviewing findings and conclusions, and selecting and documenting results. In this phase of the engagement, the firm is about to take a position on the work it has undertaken for the client. All the MCS engagement controls employed before were intended to enable the firm to complete its engagement responsibility effectively and efficiently. This phase provides a final control opportunity.

.107 Reviews are an effective tool for engagement control. Appropriate policies covering a final review of results before the engagement is concluded may be included in an MCS engagement control program. Such policies could help ensure that the engagement findings, recommendations, and report, if written, reflect the firm's quality standards and policies. The firm might, for example, specify that MCS engagement results are not to be communicated to the client as the final product until they have undergone a review in keeping with the nature, scope, and complexity of the engagement.

.108 A number of possible tasks within the final review of MCS engagement results include consultative review with the client, technical review, consulting service director's review, and objective general review. Although these are considered separately, it should be recognized that in some circumstances the consulting service director and client personnel may be the only parties involved in accomplishing these reviews (for example, when the MCS practitioner is a sole practitioner).

.109 *Consultative Review With the Client.* The quality of engagement results can be enhanced through consultative reviews with client personnel. A firm might wish to require a practitioner involved in an MCS engagement to provide opportunities during both the engagement's execution and its conclusion for a review of findings, conclusions, and recommendations with the client. This requirement could be achieved, for example, by including provisions for appropriate reviews in the engagement work program, including an engagement conclusion review.

.110 Reviewing tentative engagement results with appropriate client personnel will generally create a more receptive environment for client acceptance of final results. It will also provide opportunities to verify facts and secure initial reactions to conclusions and recommendations. In the process, practitioners may gather additional information that results in changes or further study.

.111 *Technical Review.* A technical review by an individual or individuals not involved in the engagement could enhance the final review process. The reviewing individual with the requisite technical expertise could be someone on the firm's staff or from outside the firm, as available and appropriate. The purpose of such a technical review would be to provide additional confirmation of technical results before they are communicated to the client.

.112 *Consulting Service Director's Review.* The consulting service director determines that all relevant tasks have been completed and that the engagement results are in accord with the objectives and scope agreed on throughout the engagement. The review might include a determination that—

- Alternative courses of action have been included, if appropriate, and sufficient information has been provided and verified to facilitate the client's decision-making process.

- The technical concepts involved are compatible with the client's environment and capabilities.

- The technical concepts have been explained in sufficient detail and clarity to facilitate understanding by the client and others who may review the report.

- Training requirements, if any, for client personnel have been considered.

- Implementation requirements, if any, have been considered.

.113 *Objective General Review.* A firm may wish to establish policies and procedures to assure itself that diligence and appropriate attention were applied during the conduct of an MCS engagement. Some firms have an appropriate person not involved in the engagement conduct a review that includes the substantive issues of the engagement as well as the tasks that were performed, thus providing an objective evaluation of the engagement process and its results. Such an individual would not need to be technically qualified in the subject matter of the engagement but would be able to judge whether (*a*) the analytical methods employed were relevant, (*b*) the results appear appropriate to the engagement understanding, (*c*) there is adequate evidential support for the conclusions reached, and *(d)* the engagement achieved its objectives.

.114 If a firm believes such a review is useful, it generally can be performed by the client partner. If there is no client partner, or if that individual was involved in developing the engagement results, another appropriate person within or outside the firm could do the review.

.115 **Communicating Engagement Results.** Communication of engagement results will not always be limited to, or primarily involve, a report. Some MCS engagements are designed to include assistance in the implementation of systems or selected courses of action, but in other cases implementation may be a separate engagement. In either case, the work itself and the changes made may be the engagement results.

.116 A firm may wish to establish policies and procedures to help ensure appropriate communication of engagement results to the client. For example, for written communications there might be a policy requiring that the final MCS engagement report be reviewed and approved prior to release to the client. For oral communications, the firm might wish to perform a review procedure before the client is advised that the engagement has been completed. Such a procedure might, for example, involve the preparation of a memo to the file, summarizing the work done and the final oral report, if any. This memo and appropriate engagement documents might then be reviewed before sending a letter formally advising the client that the engagement is concluded.

.117 **Engagement Follow-on.** The closing process considers all aspects of the engagement, but primary consideration is given to the substantive results of the engagement and the administrative process followed. Aside from fee billing and file-closure procedures not discussed here, there are two questions a firm may wish to address when closing the engagement:

a. Has the work achieved the objectives of the engagement?

b. Has the completion of the engagement been communicated to and accepted by the client?

.118 Within the engagement-closing process, there are two tasks, assessing client acceptance of engagement results and confirming projected completion, that might be considered separately in a control program.

.119 *Assessing Client Acceptance of Engagement Results.* Assessing results involves a candid review of how the engagement affected the client. A firm might wish to establish an evaluation procedure that, for example, would consider the client's views on whether the recommendations—

- Are specific enough to allow client understanding of the intent as well as the nature of the proposed action.
- Are practical for the client's situation.
- Have an acceptable cost-benefit relationship.

One procedure to assess client acceptance of engagement results is to schedule a follow-up visit with the client after a sufficient amount of time has passed.

.120 *Confirming Project Completion.* The engagement-closing process provides an additional opportunity to review results with client representatives and to discuss any unresolved matters or suggested changes with them. To confirm that the client views the work as completed, a firm might have a procedure requiring the use of an engagement-closure letter.

4/115 STAFF AND OTHER SUPPORT SERVICES

.01 Providing staff and other support services offers valuable assistance to clients and gives the practitioner an opportunity to expand business and use of staff and facilities. This section provides some ideas and procedures to consider in efficiently controlling and managing the unique aspects of engagements involving staff and other support services. The tasks involved in such engagements may include direct assistance with data processing, computer programming, bankruptcy trusteeship, or controllership.

.02 Earlier sections of this manual provide guidance for control of consulting services engagements in general. This section will assist the practitioner in applying that guidance to engagements involving the provision of staff or other support services.

Preengagement Considerations

.03 Staff or other support services are similar to implementation services in that they are primarily concerned with getting things done—putting into operation a task defined by the client. Because the client has already defined the task and tentatively assigned the practitioner's role in accomplishing the task, the practitioner's primary preengagement considerations lie in assessing task feasibility and judging whether the practitioner, or a member of the practitioner's staff, has the appropriate expertise to perform the task.

Engagement Planning

.04 When a preliminary decision has been made to provide staff or other support services to the client for a particular task, the practitioner needs to develop a specific plan and arrangements for conducting the engagement. Some key steps in the planning process include the following:

- With the client's assistance, obtain a clear definition of the task to be performed, including standards for success and due dates or other progress benchmarks.
- Determine the individuals in the client's office and in the CPA firm who will supervise the staff. Consider confirming in writing the roles of the client and the firm in supervising the staff and the extent of the client's responsibility in the engagement.
- Estimate the amount of time involved in engagement performance including planning, supervision, and review, and calculate related costs and reach an agreement with the client on pricing, billing arrangements, and so forth.

.05 Engagement planning will be most effective if the plans are put in writing. The written documents may include a client arrangement letter, a performance review sheet, and a calendar of key dates or performance milestones. In the arrangement letter, the assignment of client staff responsibilities should be clearly stated along with the responsibility of supervisory staff functions.

Engagement Management and Execution

.06 To ensure that the agreed-upon work is being successfully accomplished—that things are getting done—regular communication between the practitioner and the client and between the practitioner and the CPA firm staff is critical. Such communication will be primarily oral and will concern progress, problems, findings to date, and performance expectations.

.07 The practitioner should be prepared to bear the burden of ensuring regular and continuous communication with the client. Contact with the client, at least once a week, combined with flexibility in the engagement approach will generally serve to increase the likelihood of a task's success.

Engagement Conclusion

.08 Engagements involving the provision of staff or other support services will generally conclude upon the completion of the assigned task, the expiration of a predetermined time period, the attaining of budgeted costs, or upon a determination by the client that the practitioner's assistance is no longer needed. Upon an engagement's conclusion, the practitioner should conduct an exit interview with the client. The exit interview is an important step in closing the engagement because it allows the client to review the practitioner's performance and discuss the need for potential additional services. It also provides an opportunity for the practitioner to obtain feedback on the performance of staff, if applicable.

4/120 PRODUCT SERVICES

.01 The provision of product services is a unique consulting service when compared with such activities as consultations, advisory services, and implementation services. Product services differ from other consulting services. Product services occur when the practitioner provides a product and associated professional services in support of its installation, use, or maintenance. A firm may develop or market products to help promote its professional services. Examples of such products include a packaged training program and, most commonly, accounting software. Products provide an opportunity to offer cost-effective services to a client when a unique response to its needs is unnecessary. The practitioner's aim is to provide successful implementation and support of the product.

.02 Although there are a number of unique characteristics associated with the delivery of product services, it is still important that the consulting practitioner be knowledgeable of the use and the general guidance for engagement control that is provided in this section for the following phases of an engagement involving advisory, implementation, and transaction services:

- Preengagement considerations
- Engagement planning
- Engagement management and execution
- Engagement conclusion

.03 In addition to the general administrative requirements for managing and controlling a product services engagement, certain special considerations must be given to a product sale and associated consulting services, depending on the nature of the product being delivered to the client. These unique considerations are discussed in the following pages.

Preengagement Considerations

.04 For the purpose of this practice aid, it is assumed that the feasibility of the product's meeting the client's needs was determined during the provision of another consulting service, most likely an advisory service. It is further assumed that the client and practitioner have agreed that the particular product can be delivered, implemented, or executed in accordance with the client's business requirements. It is strongly recommended that the client and practitioner reach a formal agreement that covers at least the following matters associated with the sale and delivery of the product:

- Description of the product that will be delivered
- Specification of materials, documents, and services that will be provided
- Rights of and limitations on the use of the product and associated deliverable materials by the client
- Ownership of the product and associated materials
- Warranties by the practitioner regarding the product and support, and any limitations on such warranties
- Support by the practitioner of the product after initial delivery and implementation or execution
- Maintenance responsibilities by the practitioner of the product, including enhancements
- Time period for which the agreement is in effect
- Termination arrangements by either party
- Nondisclosure obligations of the client regarding the product
- Payment amount and terms

.05 Obviously, each agreement must be tailored to the particular characteristics of the product and thus the contents of an agreement on software will likely be different from those of an agreement on educational programs. The practitioner should obtain legal advice on the construction of these agreements.

Engagement Planning

.06 The general engagement planning guidance presented elsewhere in this section should be sufficient to meet the planning considerations for product services.

Engagement Management and Execution

.07 In addition to the guidance provided elsewhere in this section, it is essential that the client and practitioner have a clear understanding of the following:

- All of the particular components or elements of the product, the form and time of its delivery, and the items or facilities to be provided by the client
- The implementation services that are associated with the product, the location and schedule for provision of these services, and the responsibilities of the client to work

with the practitioner to obtain the intended benefit from the delivery of such services in support of the product

Engagement Conclusion

.08 The general guidance on engagement conclusion provided elsewhere in this section applies to the conclusion of product services engagements. It should be emphasized, however, that it is critical for there to be a clear understanding between the client and the practitioner as to when the initial delivery of the product and associated services has been completed, and as to the ongoing product support and service provision requirements under the terms of the product sale agreement.

APPENDIX 4

ILLUSTRATIVE ENGAGEMENT FORMS AND LETTERS

Exhibit 4-1

Consulting Engagement Acquisition Control Form

Prospective Client Data

Name ______________________________

Address ______________________________
(street)

____
(city) *(state)* *(zip code)*

Nature of business ______________________________

____

____

☐ New Client

☐ Current or previous client for:

☐ Audit ☐ Review ☐ Compilation ☐ Tax

☐ Consulting services (nature of work) ______________________________

☐ Other (describe) ______________________________

Partner(s) for above ______________________________

____

Initial Contact Data

Contact's name ______________________________

Contact's position ______________________________

Contact partner or staff member ______________________________

Date of contact ______________ Location ______________

Brief description of contact ______________________________

____

____

Acquisition partner ______________ Date assigned ______________

Principal contact if different ______________ Date assigned ______________

Initial Assessment

Nature and scope of potential consulting engagement ______________________________

____

____

Evaluation of engagement probability ______________ %

Proposal deadline date ______________

Consulting Engagement Acquisition Control Checklist*

	Enter check or N/A
1. Partner(s) advised and potential engagement discussed if for a current client.	☐
2. Background of prospective consulting services reviewed, including any firm files and reports.	☐
3. Industry data for prospective client researched.	☐
4. Preliminary survey performed if required.	☐
5. Engagement scope and objectives determined.	☐
6. Engagement file initiated.	☐
7. Preliminary findings reviewed with client partner or equivalent if for current client.	☐
8. Acceptability determined if for new client.	☐
9. Engagement benefits anticipated by prospective client evaluated, and limitations communicated.	☐
10. Firm competence to perform engagement evaluated and validated.	☐
11. Preliminary engagement plan developed.	☐
12. Oral proposal (if any) communicated to client.	☐
13. Oral proposal documented in file.	☐
14. Written proposal (if any) cleared with appropriate partner(s) and counsel and delivered to client.	☐

Date checklist completed ______________________________

Signature ______________________________

Date of oral or written proposal to prospective client ______________________________

* Note: Support documents, if any, are attached.

Exhibit 4-2

Consulting Services Engagement Notice

Office	**Anticipated billing**	**Engagement no.**
Date		
Client		
Address *(street)*		
(city)	*(state)*	*(zip code)*
Contact with client	**Title**	
Nature of assignment	**Starting date**	
	Anticipated completion date	
Location of assignment		

Staffing

Engagement partner	Audit personnel
Manager	
Staff	
	Client partner

Comments

Copies to:

Signature

Initial Engagement Planning Form

Client ______________________ Number ____________

Task Description		Range	Estimated Time (Days ☐ Hours ☐) Client Partner	Engagement Partner	Manager	Staff	Staff	Staff	Staff	TOTALS
1		From								
		To								
2		From								
		To								
3		From								
		To								
4		From								
		To								
5		From								
		To								
6		From								
		To								
7		From								
		To								
8		From								
		To								
Prepared by Date	ESTIMATE TOTALS	From								
Approved by Date		To								

Exhibit 4-4

Estimated Fee Computation

	Rate	Time Range		Fee Range	
		From	To	From	To
Client Partner				$	$
Engagement Partner					
Manager					
Staff					
Staff					
Staff					
Staff					
	FEE ESTIMATE TOTALS			$	$
	Other Charges Report & Production				
	Travel				
	Contingency				
	TOTALS			$	$

Notes ____

____

____

____

____

Prepared by__________ Date______ Approved by __________ Date ______

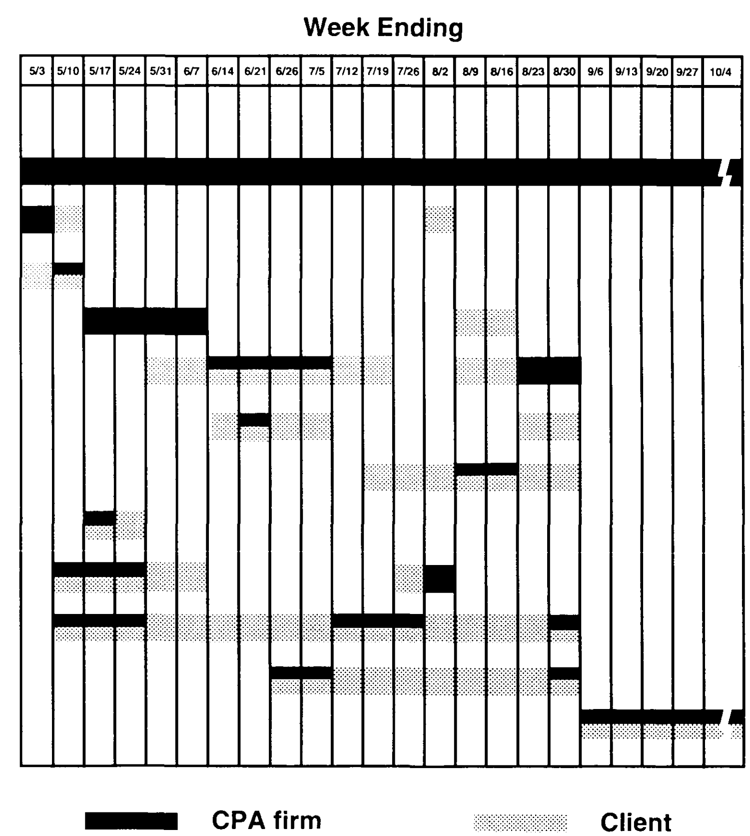
Reviewed by__________ Date______ Reviewed by __________ Date ______

Exhibit 4-5

Engagement Work Program Gantt Chart for a Complex Engagement

Overall Program for Designing and Installing a Standard Cost and Reporting System

Task	Estimated Work-Days: CPA Firm	Client	Combined
Administrative and general	20	10	30
Identify products	5	10	15
Establish cost centers	3	10	13
Develop financial and responsibility reports	20	10	30
Develop cost accounting procedures	25	45	70
Develop production reporting procedures	5	30	35
Develop general accounting procedures	5	25	30
Establish normal capacities for all cost centers	2	10	12
Develop material costs and yield standards	13	30	43
Develop labor standards for each cost center	20	40	60
Develop conversion standards for each cost center	12	30	42
Implement and follow up	20	60	80
	150	310	460



Engagement Work Program—Segment Detail of a Complex Engagement

Task	Responsibility of	Workdays			Start Date	End Date	Comments
		Estimated		Actual			
		CPA Firm	Client				
Develop cost accounting procedures:							
1. Determine the basic requirements for developing flowcharts by taking into account—							
a. Requirements for management reports.							
b. Reporting cycle (frequency of preparation).							
c. Data processing requirements.							
2. For each cost center, perform the following work:							
a. Using the cost center specification sheets, list the information required for reporting actual cost and calculate standard earnings and variances and the timing for developing the information requirements.							
b. Determine the most practical method of obtaining the necessary information. Coordinate the cost information requirements with the plant production reporting requirements.							
3 Revise the standard cost work sheets and production orders to accommodate the new accounting and management reporting information requirements.							
4. Prepare flowcharts in rough form. Indicate paperwork volume and timing where applicable.							
5. Establish personnel and processing requirements based on projected work loads.							
6. Review flowcharts and personnel requirements to determine that—							
a. They have been prepared on a consistent basis.							
b. They fulfill information requirements for both content and frequency.							
c. They provide the necessary paperwork requirements.							
7. Review the procedures used in accounting for rejected and returned goods, and incorporate them into the cost accounting system.							
8. Establish the policies for reporting labor and expenses, and design reporting and distribution procedures.							
9. Developing procedures for establishing accountability of incoming raw materials and returned goods.							
10. Determine the procedures to be used in accounting for service cost centers (e.g., Repair and Maintenance Cost Center).							
11. Prepare written procedures and have them typed.							
12. Review them with local branch personnel and division and corporate management, and obtain their approval.							
13. Train cost accounting personnel in all phases of the new system.							

Exhibit 4-7

Consulting Services Engagement Work Program, General Format

Client		Client Date
Address		Concise Description of Engagement and its Purpose
Code No.		
Engagement director	Staff	
Engagement reviewer	Audit liaison	
Estimated fee	Client approval by Date	
Client liason	Progress meetings to be held	

Engagement Subtasks (and comments, if any)	Resp. of	Start Date	End Date	Fee	Est. Hours	Revised Est.		Actual Hours
						Date	Hours	

Exhibit 4-8

Consulting Services Engagement Time Control Form

Client ______________________

Partner ______________________ Manager ______________________ Consultant ______________________

Work Steps	Budget	Week Ended				Week Ended				Week Ended				Week Ended			
		This Week	To Date	To Comp.	(Over) Under	This Week	To Date	To Comp.	(Over) Under	This Week	To Date	To Comp.	(Over) Under	This Week	To Date	To Comp.	(Over) Under
Total Fieldwork																	
Total Supervision Time																	
Total Time																	

Exhibit 4-9

Consulting Services Engagement Planning, Management, and Execution Control Form

Engagement Data

Client ________________________________

Address ________________________________

(street)

____

(city) *(state)* *(zip code)*

Nature of business ________________________________

____

Engagement objectives ________________________________

____

Time Frame

Starting date ________________________________

Anticipated completion date ________________________________

Firm Personnel

Partner ________________________________

Manager ________________________________

Staff ________________________________

____

Client Involvement

Client reporting and administration contact(s) ________________________________

____

Phone no. ________________________________

Client personnel assigned to project staff and their project duties ________________________________

____

Reviewers

General reviewer ________________________________

Technical or special reviewer ________________________________

Exhibit 4-10

ENGAGEMENT PLANNING MEMORANDUM

Client: ______________________________

Engagement Date: ______________________________

Instructions:

This memorandum should be completed by the practitioner in charge of the engagement and reviewed by the engagement executive and partner, before engagement personnel begin fieldwork.

I. *Engagement Administration*

A. Presentation of engagement letter

____
____
____
____

B. Use of client assistance or paraprofessional

____
____
____
____

C. Planning for proper work space and equipment

____
____
____
____

D. Assignment of staff personnel

____
____
____
____

E. Use of specialists

F. Use of software

G. Budget

H. Other special considerations

Exhibit 4-11

Consulting Services Engagement Control Checklist*

Activity/Task	Enter check or N/A
A. Planning	
1. Engagement work program developed.	☐
2. Appropriate staff assigned.	☐
3. Hour estimates and target dates checked for reasonableness.	☐
4. Work program reviewed by appropriate parties (firm and client).	☐
5. Deviations (if any) from initial understanding approved by client.	☐
Signature of reviewer ________________________	
Date ______________	
B. Management and Execution	
1. Engagement work program revised to reflect any changes in understanding.	☐
2. Hour estimates and target dates monitored periodically against progress.	☐
3. Engagement progress reviewed periodically with client partner.	☐
4. Engagement progress reviewed periodically with client.	☐
Signature of reviewer ________________________	
Date ______________	
C. Engagement Conclusion	
1. Completion of tasks in work program verified.	☐
2. Engagement file checked for appropriate documentation.	☐
3. Tentative findings, conclusions, and recommendations reviewed informally with appropriate parties (firm and client).	☐
4. Final technical review conducted.	☐
5. Final objective general review conducted.	☐
6. Results communicated to client.	☐
7. Follow-up visit scheduled.	☐
8. Follow-up visit conducted.	☐
9. Engagement file closed.	☐
Signature of reviewer ________________________	
Date ______________	

* Support documents, when appropriate, should be in the engagement file.

Exhibit 4-12

Management Consulting Services Engagements — Client Acceptance and Continuance Form

Part I
Client: ______________________________
Engagement Date: ______________________________

INSTRUCTIONS:

This form should be completed for all prospective clients for which management consulting services are to be performed. The data on the form should be reviewed as a basis for initially accepting the client. The form should be updated and reviewed periodically as a basis for understanding the requirements and policies and for accepting or rejecting new clients.

Client's Legal Name:

Address:

Phone:

Federal I.D. No:	State I.D. No.:

1. Describe the nature of the client's business:

2. Identify the type of entity (e.g., corporation, proprietorship, partnership, S Corporation, or nonprofit):

3. List key owners, officers, and directors of the client:

Name	% Owned	Position	Family Relationship

4. Identify any related businesses or individuals:

Name	Nature of Relationship

5. Identify the client's CPA firm:

Name:
Address:
Contact person:

6. Describe the client's relationships with financial institutions:

Name	Type of A/C's or Loans	Account Executive

7. Describe the major operational or administrative problems:

8. Describe the consulting services to be provided:

Services	Report Deadline	Form of Delivery	Follow-up Service

9. Describe any other services not requested for which there appears to be a need:

10. Describe the expected client assistance:

11. Describe why there is a need for the service including any regulatory requirements or third parties for which the service or report is intended:

12. Will historical financial statements be used during the course of the consulting engagement and serve as the basis for recommendations? Yes ________ No ________

13. Describe the use of historical financial statements (indicate whether financial statements or financial information as defined in SSARS #1 will be used):

14. Describe the locations at which the client does business and the nature of the activities and number of employees at each location:

15. Describe the company's sources of revenue and marketing methods:

16. Describe the client's major sources of financing:

17. State the name(s) of third parties contacted concerning management's reputation, attitude, ability, and integrity:

18. Describe any other significant engagement performance, accounting, or tax problems with which we may be concerned:

19. Describe any statutes, laws, or regulations that have a direct effect on the entity's operations:

20. Identify the client's legal counsel:

Name:
Address:
Contact person:

21. Describe any pending litigation against the client or its principals:

22. Describe the billing arrangements:

23. Describe any significant relationship with the entity, key management, product, or service that could be viewed as impairing objectivity:

24. Describe any major changes in the above information since our last evaluation of this client. Also describe any other matters that have come to our attention that would have caused us to reject the client had we been aware of them at the time of our initial acceptance of this client:

	19__	19__	19__	19__	19__	19__	19__
Prepared or updated by:	____	____	____	____	____	____	____
Reviewed by (Partner):	____	____	____	____	____	____	____

Part II
Client: ______________________________
Engagement Date: ______________________________

Overall Engagement Acceptance Risk (describe any high risk — "yes" — answers in a planning memorandum):

Management Integrity:

	Yes	No	N/A
1. Is there any reason to doubt the integrity of management (owners)?	☐	☐	☐
2. Is there difficulty in obtaining information from management or have responses been vague or evasive?	☐	☐	☐
3. Have there been comments by attorneys, bankers, creditors, or others having a business relationship with the potential client?	☐	☐	☐
4. Is there disagreement about consulting engagement procedures or similarly significant matters raising doubts about management's integrity?	☐	☐	☐

Engagement Performance Risk:

	Yes	No	N/A
1. Are the client's needs beyond our capabilities or staffing abilities?	☐	☐	☐
2. Are we aware of any independence or conflicts of interest problems that may affect our ability to meet the client's needs?	☐	☐	☐
3. Are there high-risk factors related to the engagement that may affect our decision to accept the client (e.g., high-risk of litigation or unfavorable publicity)?	☐	☐	☐
4. Are we certain about collecting the fee?	☐	☐	☐
5. Will the combination of high costs with low service hinder our ability to make a profit in this engagement?	☐	☐	☐
6. Will the firm's internal standards on profitability be impacted by the client firm's size?	☐	☐	☐

For any "Yes" answers, explain how we plan to mitigate the problem (for example, by assigning more experienced personnel to the engagement, obtaining outside consultants, obtaining a retainer from the client, etc.):

Acceptance Decision:

Yes _____ No _____

Engagement Partner: ________________________________ Date: ____________

Concurring Partner: ________________________________ Date: ____________

5/100 DEVELOPING A CONSULTING SERVICES PRACTICE

CONTENTS

5/100 DEVELOPING A CONSULTING SERVICES PRACTICE

5/105 STARTING A CONSULTING PRACTICE

.01 As the complexity and technological sophistication of the business environment increase, the need for general and specialized consulting services grows. By developing or acquiring the skills and abilities required by a consulting services practice, the CPA may be in a better position to assist clients in reaching their goals. A consulting services practice will enhance the practitioner's ability to meet more of the needs of current and potential clients.

.02 An individual in practice (that is, an independent practitioner or a partner in a firm) may seek to start or develop a consulting services practice to accomplish any of the following objectives:

- Fully utilize expertise that the practitioner or firm has developed.
- Strengthen the practitioner's role as the client's primary advisor.
- Meet the service expectations of existing audit, accounting, and tax clients.
- Expand the practice by increasing services to existing clients and acquiring new clients.

Consulting Services Practice Characteristics

.03 Success in starting or developing a consulting services practice will depend, in part, on the practitioner's ability to understand the special needs, characteristics, and professional standards of consulting services and the difference between consulting services and audit, accounting, and tax services. The special characteristics include the following:

.04 *Nonrecurring nature*. Consulting services work typically does not involve compliance work that is repeated at fixed intervals (for example, monthly, quarterly, or annually). Since the engagements are nonrecurring, personnel will usually spend a greater percentage of their time in marketing consulting services than is normally expected in marketing recurring services such as audit, accounting, and tax work.

.05 *Need for broader skills*. Consulting services engagements may require skills other than accounting skills such as specific analytic and process-oriented skills and industry-specific or function-specific skills.

.06 *Lower staff utilization.* The number of chargeable hours per year is usually lower in a consulting services practice than in other services. This is due principally to the increased marketing effort and specialized skills required to maintain the practice. Consequently, hourly rates for consulting services are usually somewhat higher than rates for other services.

.07 *Lower staff leverage.* The ratio of staff-to-partner hours is usually lower in a consulting services practice than in other services because of the industry-specific or discipline-specific nature of consulting work.

.08 *Interactive client relationship.* In applying consulting services, the practitioner often works closely with the client to solve a problem for the benefit of the client. In compliance work, however, the practitioner serves as an impartial party for the benefit of third parties. Since the working relationship differs in these two areas, the client needs to be convinced of the potential benefits of each service.

.09 *Wider client base.* Consulting services engagements are often undertaken outside of the firm's existing accounting, audit, and tax clients to take full advantage of the particular skills of the firm's staff and to achieve economic success.

Stages of Consulting Services Practice Development

.10 A consulting services practice has four distinct stages of development. An awareness of these stages permits a firm to identify its current situation and to develop a plan for the future of the practice. This awareness also assists in understanding the interacting factors that affect the development of a consulting services practice. A practitioner or firm might conclude that any one of these stages is the preferable mode of operation at present and perhaps indefinitely. Not every firm falls neatly into one of these stages of practice development. Furthermore, not every firm necessarily progresses through all the stages nor is it always desirable to do so.

.11 **Latent Stage.** In the latent stage, the firm does not market consulting services separately. The practitioner or firm does not differentiate consulting services from other services because the work is performed incidental to other services for existing clients. The consulting services are likely to be provided on a nonrecurring basis as a particular situation arises and the practitioner or firm feels competent to do the work.

.12 Typically, at the latent stage the consulting services take the form of consultations or small engagements, and no one person is designated as a consulting services practitioner or assigned this responsibility.

.13 **Informal Stage.** In the informal stage, at least one person, usually a partner, is assigned part-time responsibility for consulting services. Certain activities, such as assisting clients with microcomputers, may be separately identified as consulting services activities and distinguished from other services. Accordingly, such selected activities begin to be assigned to consulting services personnel.

.14 Most consulting services activities are developed from within the existing client base, and policies and procedures pertaining to them remain informal. Marketing of consulting services occurs in conjunction with or is appended to the marketing efforts for other firm services.

.15 **Formal Stage.** In the formal stage, the consulting services function takes on an existence of its own and becomes an integral part of organizational structure. There is a partner in charge of consulting services and full- or part-time consulting services personnel. Consulting services are identified, developed, and marketed separately from other services, and consulting services policies and procedures are formalized.

.16 In this stage, the consulting services area has to justify its existence and is no longer thought of as an auxiliary service to complement the rest of the organization. The focus shifts from consultations to other consulting services engagements, with the intent to expand such engagements. Generalist practitioners are usually supported by function or industry specialists on either a full- or part-time basis.

.17 **Diversification Stage.** In the diversification stage, the consulting services function may become multi-office, depending on the number and size of the offices the firm has already established for its accounting, audit, and tax services. Additional areas of functional and industry expertise are gradually added to the consulting services capability, and heavier emphasis is placed on marketing larger consulting services engagements to new clients. Some consulting services specialties may have an individual partner-in-charge. The changing aspects of consulting services practice development are highlighted in figure 5-1, "Stages of Consulting Services Practice Development."

Key Factors for Success

.18 A practitioner or a firm that is starting or developing a consulting services practice needs to consider the influence of the following factors on the practice's success and profitability.

.19 **Commitment**. Developing the consulting services function requires a commitment of adequate physical, financial, and human resources. Financial commitment includes developing realistic assumptions about the investment necessary to develop the consulting services practice as well as the length of time required to recover that investment.

.20 **Leadership**. Strong partner leadership with significant organizational support is critical. Initiative and advocacy are two elements of leadership necessary for developing a consulting services practice.

.21 The commitment of partner leadership to consulting services provides assurance that a significant effort will be made to develop this type of practice. Such leadership is necessary if the consulting services planning and implementation efforts and subsequent administration are to be carried out successfully. It also demonstrates the commitment of the firm and provides a means of ensuring coherence with the other elements of the firm's practice.

.22 Partner leadership at the beginning of the development effort is important to achieve satisfactory financial performance for the consulting services practice as well as for the firm. It also sets the stage for practice growth. In a more mature consulting services practice, such leadership usually sustains the firm's commitment to consulting services and encourages expansion of both the practice and the firm.

Figure 5-1

Stages of Consulting Services Practice Development

	Latent	*Informal*	*Formal*	*Diversification*
Do consulting services activities exist?	Maybe	Yes	Yes	Yes
Are consulting services activities identified as such?	Maybe	Yes	Yes	Yes
Is there a consulting services staff person—				
Part-time?	No	Yes	Yes	Yes
Full-time?	No	Maybe	Yes	Yes
Is there a consulting services partner—				
Part-time?	No	Yes	Yes	Yes
Full-time?	No	Maybe	Yes	Yes
Are engagements emphasized more than consultations?	No	Maybe	Yes	Yes
Is there a separate consulting services organizational structure with defined policies and procedures?	No	Maybe	Yes	Yes
Are consulting services marketed separately from other firm services?	No	Maybe	Yes	Yes
Does the firm distinguish between functional and disciplinary consulting services specializations?	No	Maybe	Yes	Yes
Is there a heavy emphasis on consulting with new clients?	No	No	Maybe	Yes
Are there several different consulting services specialties?	No	No	Maybe	Yes
Are consulting services people located in more than one office?	No	No	Maybe	Yes

.23 The degree of partner involvement may vary significantly during the process of developing an organized consulting services practice. If a nonpartner is assigned initial responsibility for conducting the consulting services practice, for example, it is important that this individual receive strong partner support.

.24 **Philosophy**. The proper attitudes of firm personnel can enhance the effort to develop the consulting services practice. Characteristics of the practice's and firm's culture that will foster growth of the consulting services function include the following:

.25 *Cooperative attitude*. The practitioner or firm allows consulting services personnel to have appropriate access to the existing client base.

.26 *Proactive style*. The practitioner or firm attempts to influence events beforehand in contrast to waiting until something has happened before taking action. The proactive style facilitates consulting services practice development.

.27 *Client-centered service*. The practitioner or firm works very closely with the client. Because this approach emphasizes client needs, the consulting activities undertaken are more likely to be appropriate and successful.

.28 *Market orientation*. The firm develops and offers services needed in the marketplace.

.29 *Adaptability*. The firm demonstrates a willingness to be flexible and support change because it acknowledges that consulting services are very different from compliance work.

Planning for a Consulting Services Practice

.30 Developing a sound strategic business plan for consulting services activities is a critical factor in starting and developing a successful consulting practice. The consulting services business plan must be predicated on and integrated with the firm's strategic plan.

.31 A consulting services strategic business plan responds to specific existing practice situations and a firm's intended future direction. The following elements need to be considered:

- Philosophy and existing practice
- Mission statement
- Operating goals
- Practice development
- Organization and administration
- Financial planning
- Personnel planning and training
- Marketing of consulting services

Figure 5-2

A Checklist of Sample Questions About the Practice Situation and Philosophy

1. To what degree do key firm members specialize by industry or functional area?
2. What are the sizes of the firm's consulting services clients and engagements, and how do these differ from the firm's overall direction?
3. What is the firm's personnel leverage ratio (staff-to-partner hours)?
4. Are clients being billed for additional services outside the scope of recurring audit or tax work?
5. What percentage of existing firm service volume is recurring compared with that which is nonrecurring?
6. How formal is the firm's present organization?
7. What are the professional goals of the existing management group?
8. What services do existing clients need that are not presently provided by the firm?
9. For existing clients, what is the mix of compliance services and consulting services?
10. What percentage of the firm's service volume is rendered to clients that use the services of more than one CPA firm?
11. What are the firm's goals and operating history for—
    - Profitability?
    - Realization?
    - Utilization?
    - Chargeability?
    - Write-offs?
    - Growth?
    - Financial investment in the firm?
    - Prior efforts to diversify services?
12. Do the partners want to start or expand a consulting services practice in order to—
    - Meet client's needs in order to retain them?
    - Increase the off-peak chargeability of professional staff?
    - Increase the firm's exposure in the community?
    - Compete more effectively with other firms?
    - Increase the firm's services?
    - Enter new industries?
13. Promote staff job satisfaction by providing a variety of engagements?
14. Who are the firm's key competitors?
15. What is the firm's competitive position within its defined market and where does it plan to go in—
    - Size and growth?
    - Industry market penetration?
    - Nature of clients?
    - Services?

.32 **Philosophy and Existing Practice.** The professional and business philosophies of the sole practitioner or partnership and the existing practice mix are significant factors in choosing an effective approach to developing a consulting services practice. It is appropriate to evaluate the existing practice's types of clients and the services provided to them as well as to determine the types of services needed in the future. In addition, a market study of the firm's current, proposed, and potential services will be helpful. Another important activity is analyzing the specialization of the firm's existing partners and professional staff by industry and function (that is, audit, tax, and consulting services) in light of the consulting services to be offered. A final task is to identify any differences between the firm's operating philosophy and the consulting services practice.

.33 Figure 5-2 contains a checklist of sample questions that the partners of a CPA firm need to resolve before deciding on whether to start a consulting services practice.

.34 **Mission Statement.** The mission statement in a business plan expresses, in a few words, the purpose of having or developing a consulting services practice in the firm. Although this statement may require annual review, it is best assessed in a long-term context. This element of the plan may prove difficult for the existing partners to agree on, because it is the platform on which the balance of the business plan is developed.

.35 **Operating Goals.** Although the mission statement is not expressed with a time frame, goals are. Each goal needs to be sufficiently specific and quantitative to be measurable. Goals can be defined and reevaluated on a short- and medium-term basis. For example, the number of engagements for clients in a specific industry might be estimated for one, three, and five years.

.36 Specific goal setting depends on the mission and direction of the consulting practice. The goals should be neither too easy nor too difficult to achieve. In addition, goals will likely change significantly each year, as actual experience influences the goal-setting process. Some areas in which to establish goals might include the following:

- Overall dollar volume and hours of consulting services
- Sources of work:
    - The traditional, recurring client base
    - Recurring clients of other CPA firms
    - Additional engagements from consulting clients
    - Referrals from consulting clients
    - Initial contacts of consulting personnel
    - Responses to requests for proposals (RFPs)
- Numbers of engagements defined by functional type (for example, systems design or financial feasibility studies) and by industry
- Size of engagements

- Dollar volume of services associated with the segments defined above
- Percentages of local and out-of-town work
- Number or percentage of nonconsulting engagements obtained by consulting services personnel
- Chargeability by level of personnel
- Collectibility on consulting services

.37 In addition to determining goals that the practice would like to achieve during a given year, a firm may decide to develop an operating work plan. Such a plan reflects the consulting services practice's strategic choices and indicates new approaches that will be implemented in the future, thereby determining—

- The volume of consulting and other services marketed or delivered to clients.
- Changes in the service portfolio (for example, phasing out a service, introducing a new product, or beginning work in a new sector).
- Staff recruitment or training requirements.
- Volume and orientation of promotional and marketing activities.
- Other measures needed to implement the work program and to prepare for the future (for example, research and development and organizational changes).

.38 By analyzing business trends and evaluating the competition, the consulting practice can assess its current strengths and weaknesses to determine growth targets.

.39 **Practice Development**. In marketing consulting services, one of the most important considerations is promoting these new capabilities within the firm. Accordingly, the audit and tax staff need to understand the nature of the services that will be offered to their clients and the resources available to them. This understanding of available services facilitates the internal referral process for consulting opportunities and enhances the growth of the consulting services practice. An understanding of the business environment is also necessary to target the market that the firm can serve competently. A discussion of marketing appears later in this section.

.40 Since most consulting work comes from the development of professional relationships, successful practitioners will cultivate personal contacts in the target market. These personal contacts might include—

- Other CPAs who offer complementary skills in providing consulting services.
- Community and government leaders.

- Industry executives.
- Bankers, attorneys, and consultants with complementary skills.
- Academicians.
- Insurance agents and brokers.

.41 Once established, contacts can recommend the firm for engagement opportunities within their companies for years to come. In fact, systematically tracking former client executives as they move into new positions is an excellent way to obtain repeat business.

.42 Management seminars, another practice development technique, are effective public relations activities because the sponsor—in this case, the firm—mails the seminar brochures to a wide target audience, with a fairly large number of people usually attending. Consulting services practitioners will want to conduct seminars relevant to target markets identified by the firm. As a practical matter, the seminar participants are often not in a position to retain the consultants; however, they can often make recommendations or influence such decisions.

.43 Membership in professional organizations serving the target markets of the consulting services practice may also be useful. Such professional associations not only enhance the credentials of the practice, but also present opportunities for specific client development.

.44 In addition to these general practice development activities, the firm may engage in client-specific activities when there appears to be a clear match between the prospective or existing client's needs and the firm's service capabilities. Client development activities may take a variety of forms. To promote consulting services, a firm can—

- Propose small projects with limited scope to help build client confidence in the consulting services practitioner or firm. The doubts of a prospective or existing client about engaging the consulting services practitioner or firm for more significant projects may be overcome by completion of the small project.
- Prepare management letters in audit engagements that clearly reflect the practitioner's or firm's knowledge of the client's business and that indicate specific problem areas requiring attention.
- Respond to requests for proposals by addressing specific needs.
- Encourage audit and tax professionals who have knowledge of clients to identify opportunities for consulting services work.

.45 **Organization and Administration.** Good organization and management of the consulting practice are necessary ingredients for providing quality consulting services. In most firms, audit or tax partners manage the relationships with existing clients for whom recurring work is done. These partners' perceptions of the consulting services department's ability to manage its operation and provide knowledgeable and responsive client service will have a critical influence on internal referrals and the growth of the consulting practice.

.46 Many of the key elements in organizing and administering a consulting practice, such as consulting services project management tools and a practice development plan, are similar to those used in other practices of the firm. A well-structured consulting services practice might have, for example, formal engagement control, continuing professional education, and recruiting and retention programs.

.47 Time reporting, billing and collection systems, budgets, and monthly financial statements for the consulting practice can be maintained separately from records on other firm services. In addition, consulting services departments can operate independently with their own personnel scheduling and control systems and performance appraisal processes.

.48 In order to establish and develop a consulting services practice, a firm needs to develop special organizational and administrative policies. The following questions are examples of the issues a firm may consider in drawing up such policies:

- Who hires and terminates consulting services personnel?
- Who is authorized to sign for the firm?
- Who sets fees?
- What limits are set on the services offered?
- Who reviews and approves client communications?
- Who approves proposals and final reports?
- Who is responsible for the billing function?

.49 It is to be hoped that these matters are already covered by the firm's existing policies and procedures. However, experience shows that some firms' policies are inadequate for a consulting services department that may perform additional, and often very specialized, services for both new and existing clients.

.50 **Financial Planning**. Like any business, a consulting services practice has financing needs. The financing may be internal through investment by the owners or may be external through funds borrowed from other sources. The operating budget is the basic management tool for controlling financial operations. In preparing the budget, the firm includes all expenses it expects to incur during the budget period. It adjusts billing and collection as required for recovering expenses and ensuring an adequate profit. Financial planning may show that lower profits are a result of higher costs. In such a case, management can determine the most effective method of controlling these costs, thereby avoiding the risk of charging excessive fees. If growth in operations and income is planned, financial analysis should reveal how expenses will increase.

.51 At least once a month the consulting services department prepares a cash flow forecast. This forecasts billing and receipts from work in progress. It allows for cyclical changes normally associated with a consulting practice, calculates the firm's performance relative to its financial plan, and determines whether the firm can meet its consulting services financial commitments.

.52 With the cash flow approach, recurring monthly costs and expenses have to be budgeted. A determination is made about the time needed to generate a level of income to cover or exceed these monthly costs. It is wise to have funds for three to four months' expenses available as initial capital funds. Many consultants obtain retainers at the beginning of a consulting assignment to help cover these recurring monthly costs.

Personnel Planning and Training

.53 Short- as well as long-range personnel planning is essential in developing a consulting practice. It is important to address the need for specialized training to match the types of services offered. The consulting services staff represents the consulting practice, provides services to clients, and develops future business. They also determine the level of success, the rate of growth, and the direction of the consulting practice.

.54 The criteria for selecting consulting services staff should be based on stated business objectives. For example, if the goal is to carve a niche in the small business consulting market, the firm carefully selects a consulting staff of people with strong small business experience, effective communication skills, and an entrepreneurial management style.

.55 Once the firm clearly understands the objectives of the consulting services practice, it can develop a firm profile to serve as a guide in identifying and measuring the growth stages of that practice and taking corrective actions when necessary. This firm profile can be specific enough to show the methods of planning daily business activities, the markets developed, and the long-range plans.

.56 The firm can also develop a position profile that describes each consulting services position, including the role it plays in the practice and its responsibilities and duties.

.57 A third profile will center on the individuals to be placed in consulting services positions. It will consider the type of people best qualified to carry out the business objectives and their academic credentials, experience, personal traits, and characteristics.

.58 Educational requirements will be based on the nature of the consulting practice. The experience factor must be evaluated carefully in terms of a proven track record, progression of decision-making responsibility and project management, and refinement of analytical skills. Personal traits and characteristics are also critical for establishing client relationships.

.59 **Hiring Considerations**. Some of the key issues the firm may have to address in personnel hiring for consulting services:

- What kinds of expertise does the practice need—generalists or specialists?
- How many people, and at what levels, does the practice need and when?
- Should recruiting efforts be tied directly to, or be independent of, the actual level of engagements secured? This can influence the time necessary to increase the practice to a manageable size as well as to avoid having idle personnel.
- What kind of image and reputation does the firm plan to develop and project?
- How and from where will the firm attract people?
- To what extent is the firm committed to staffing consulting services engagements with audit and tax personnel when they are qualified?
- Can some personnel needs be met through cooperative engagements?
- Will non-CPA personnel have a career path? How will the firm orient these people to the standards and practices of the firm and the profession?

.60 Although some of these issues are discussed in the following paragraphs, more detailed guidance is provided in Section 5/115 "Human Resources for a Consulting Practice."

.61 **Functional Skills**. A firm may hire consultants with education, skills, and experience in the following functional areas:

- Operations
- Financial analysis
- Marketing
- Research
- Information systems
- Human Resources
- General Business Planning

.62 **Industry Knowledge**. Consulting services practitioners typically acquire their industry knowledge through prior work experience. This may include training and experience in audit and taxation within the practice of public accounting and work in the private sector, where they have held positions such as controller, treasurer, human resource administrator, operations manager, and so forth. Industry seminars, workshops, and university programs are other ways practitioners acquire knowledge.

.63 Generalists Versus Specialists. Generalist consultants, the diagnosticians of the profession, possess the requisite education and executive experience in functional business areas to tackle a broad range of client problems. They believe that certain management fundamentals are required to run any business successfully. These fundamentals include strategic planning, organization, development, marketing, production control, financial control, compensation, and communications. Generalists tend to have a broad perspective on complex problems at top management levels and prepare a comprehensive diagnosis before presenting their recommendations.

.64 Specialist consultants, on the other hand, focus their efforts on a specific activity within a functional area. They acquire their in-depth knowledge, which enables them to solve problems, through extensive training and experience in a specific area. If a client is relatively clear about a problem and the problem is confined to one technical or functional discipline, then the specialist is the logical choice to perform the task. Increasingly, clients are demanding that the practitioner provide services that require a breadth of competency. In these circumstances, the demands can be satisfied only if a specialty is offered.

.65 Cooperative Engagements. Sometimes a firm may find it beneficial to minimize its risk by meeting part of its personnel requirements for specific projects through cooperative engagements. This type of arrangement offers an opportunity to pursue large projects using expertise outside the firm to complement the expertise of the firm that is developing a consulting services practice. More detailed guidance on cooperative engagements and referrals is provided in Section 5/110.

.66 Career Paths. Many CPA firms find it necessary to employ non-CPA professionals, such as engineers, data systems professionals, and human resource administrators, to provide a full range of consulting services or handle certain areas of functional expertise. To continually provide specialized services, the firm needs to provide a career path for these professionals even though they are not CPAs, and ideally, also offer a clear opportunity for the equivalent of partnership status within the firm. Laws regulating this matter in CPA practices differ from state to state and legal advice may be necessary. In addition, non-CPA personnel must be informed about the AICPA Code of Professional Conduct and practice requirements of the profession and the firm. (A basic reading list and appropriate self-study materials prepared by the firm, the AICPA, or the state society are excellent ways to familiarize non-CPAs with these matters.) Additional guidance on career development is provided in Section 5/115.

Marketing Consulting Services

.67 Marketing is a key ingredient to the success of a consulting practice. The two main elements for successful marketing are recruiting and retaining personnel with excellent personal selling skills and capitalizing on the complementary nature of consulting services to the traditional public accounting services. The firm needs to recognize those personnel with the greatest ability to sell new and existing consulting services and to reinforce this recognition by providing training and financial incentives. As part of its marketing effort, the firm may need to commit significant resources to the training of partners and staff in personal selling and to familiarize them with the consulting services available.

.68 To attract clients, a consulting services practice needs to design and execute a careful marketing plan. The marketing plan is typically a by-product of strategic planning, which is an ongoing process involving the analysis of the firm and leading to a plan to guide its development and success. Development of the marketing plan requires understanding the business issues of the client's marketplace. Marketing can be done in several ways, for example, making social contacts with potential clients by attending and participating in management conferences, sponsoring workshops, joining various business and civic associations, and being present at cultural and recreational activities. Third-party referrals also play a major role in consulting services practice development. The primary purpose of developing relationships with third-party referral sources is to build a communications network that provides significant information about existing and prospective clients. The importance of any particular group of referral sources depends on the nature of the firm's practice and its long-term goals.

.69 Marketing devices should be appropriate for the type and range of client the firm wants to attract. These devices include firm newsletters, brochures, and notices in industry and trade association publications.

.70 *Firm newsletters*. Firms can promote current or new consulting services to existing and prospective clients for audit, accounting, tax, and consulting services. The newsletters may describe all the services the firm offers or may be dedicated exclusively to consulting services. They may provide advice, report firm news, and comment on financial and economic news. Although newsletters developed internally may be useful, they can be costly and time-consuming to produce.

.71 *Consulting services brochures*. Firms can describe their consulting services in general or may focus on one or more services (for example, microcomputer consulting). The brochures may also be distributed to current and prospective audit, accounting, tax, and consulting services clients. The AICPA MCS Division issues low-cost brochures of this type that can be imprinted with the firm's name and address. Brochures are effective marketing tools when they discuss specific topics of interest to a particular user group (for example, pilferage control for restaurants).

.72 *Press releases*. A good way for the firm to inform the community about its services is through press releases. A properly managed public relations program implemented with press releases can generate leads, enhance employee morale, and help to expand services to existing clients.

.73 *Articles*. Publicity for the firm can often be gained through the publication of articles for trade publications and newsletters written by staff. These articles may also be reprinted and used with other literature to show the firm's capabilities to prospective clients.

.74 *Advertising*. The firm needs to determine which type of advertising and media work best for it. Advertising can take many forms including announcements in print media, such as trade journals, and electronic media, such as radio and television. The firm can also advertise its services through exhibit booths at the meetings of trade and professional organizations.

.75 Since the firm's public image is a critical aspect of successful business development, it is important that the firm focus on specific resources that it can bring to clients. Image building is greatly influenced by the marketing strategy of the consulting practice. Figure 5-3 provides several questions to help determine whether marketing efforts are directed properly.

Figure 5-3

A Checklist of Marketing Issues and Strategies

Have key clients been identified?

Have client retention plans been developed?

Have plans been undertaken to expand services to key clients?

Have client-centered communications been devised and implemented?

Have present client referrals to potential clients been pursued?

Have key referral source contacts, such as client alumni, attorneys, and bankers, been established?

Have key civic organizations, social groups, and trade associations been identified?

Have leadership roles in key organizations been pursued?

Has an ideal potential client profile been defined?

Have potential clients been identified and prioritized?

Have timely, client-centered proposals been developed?

Have trade journals, magazines, and other publications been used as tools for advertising the practice's services?

5/110 COOPERATIVE ENGAGEMENTS AND REFERRALS

.01 Management problems are often highly complex, and their solutions may require a variety of skills. A CPA firm that lacks all the required skills could choose to perform requested consulting services and provide additional needed expertise through a cooperative engagement, which involves working with one or more participants from outside the firm.[1]

[1] As used in this document, the term *firm* usually includes the practice of a sole practitioner.

Consulting services practitioners could also choose to refer the client to others for all or part of the requested services.

.02 Practitioner participation in cooperative engagements can benefit a client by providing—

- Technical skills necessary to complete an engagement.
- Resources beyond a firm's capability.
- Coordination and control as the primary contractor, at the client's request, even though technical skills to complete the engagement will come from more than one source.

Terminology

.03 For purposes of this section, the following terms are defined as they are used in reference to cooperative engagements and referrals:

.04 *Client*. The person or entity that engages the primary contractor.

.05 *Cooperative engagement*. Any engagement in which the practitioner coordinates work with others outside the firm's or client's direct employ to complete a common project. The practitioner often assumes overall responsibility for such engagements. The term also applies when a client assumes overall responsibility for an engagement that employs multiple independent parties. These engagements generally require a close working relationship between multiple parties and the client.

.06 *Joint venture*. A business entity formed by a consulting services practitioner and others outside the firm solely to provide services for one or more specific client engagements. The joint venture would normally terminate on completion of the engagements.

.07 *Primary contractor*. The party who assumes overall responsibility for the engagement, although such party may subcontract work to others outside the firm's direct employ to fulfill an engagement.

.08 *Referral*. The party to which the practitioner refers the client.

.09 *Subcontractor*. A practitioner who provides consulting services to a client other than the end-user. If the end-user is aware of the practitioner's participation, such an engagement may be perceived as a cooperative engagement, even though the practitioner is responsible only to the primary contractor.

Responding to a Request for Services

.10 A practitioner who receives a request for services may decline the request. The chart in figure 5-4 summarizes possible practitioner responses to a request for services, including the decision process in a cooperative engagement or referral. Individual aspects of the process are described in the following paragraphs.

.11 **Accepting an Engagement**. A practitioner who accepts a request for consulting services can utilize personnel from within the firm only or choose to include others from outside the firm as discussed in paragraphs .12 and .13.

.12 *Sole-provider engagements*. A practitioner can accept and perform an engagement using only the firm's internal staff. This is a sole-provider engagement. Sole-provider engagements do not result in cooperative efforts or referrals, and therefore are not discussed further. However, much of the information about planning, supervision, and execution contained in this document may be useful in sole-provider engagements.

.13 *Multiple-provider engagements*. A practitioner can satisfy staffing requirements by arranging with others outside the firm to participate in the engagement in addition to staff from inside the firm. This is a multiple-provider (that is, a cooperative) engagement. In such engagements the practitioner can function in one or more of these three roles:[2] (*a*) a primary contractor, (*b*) one of several parties rendering services directly to a client, or (*c*) a partner in a joint venture. These types of engagements are discussed in greater detail in paragraphs 5/110.16-.25

.14 **Declining an Engagement**. In notifying a client about the firm's decision not to accept an engagement, the practitioner may wish to prepare a file memo describing the request and the reason for declining it. In declining an engagement, however, the practitioner may also choose to make a referral.

.15 A practitioner who declines an engagement and does not recommend an alternative source has no responsibility to the client for that engagement. Such a response does not result in a cooperative engagement or a referral and, therefore, is not discussed further.

Cooperative Consulting Services Engagements

.16 The definition of a consulting services engagement in the Statement on Standards for Consulting Services No. 1 applies to cooperative engagements.

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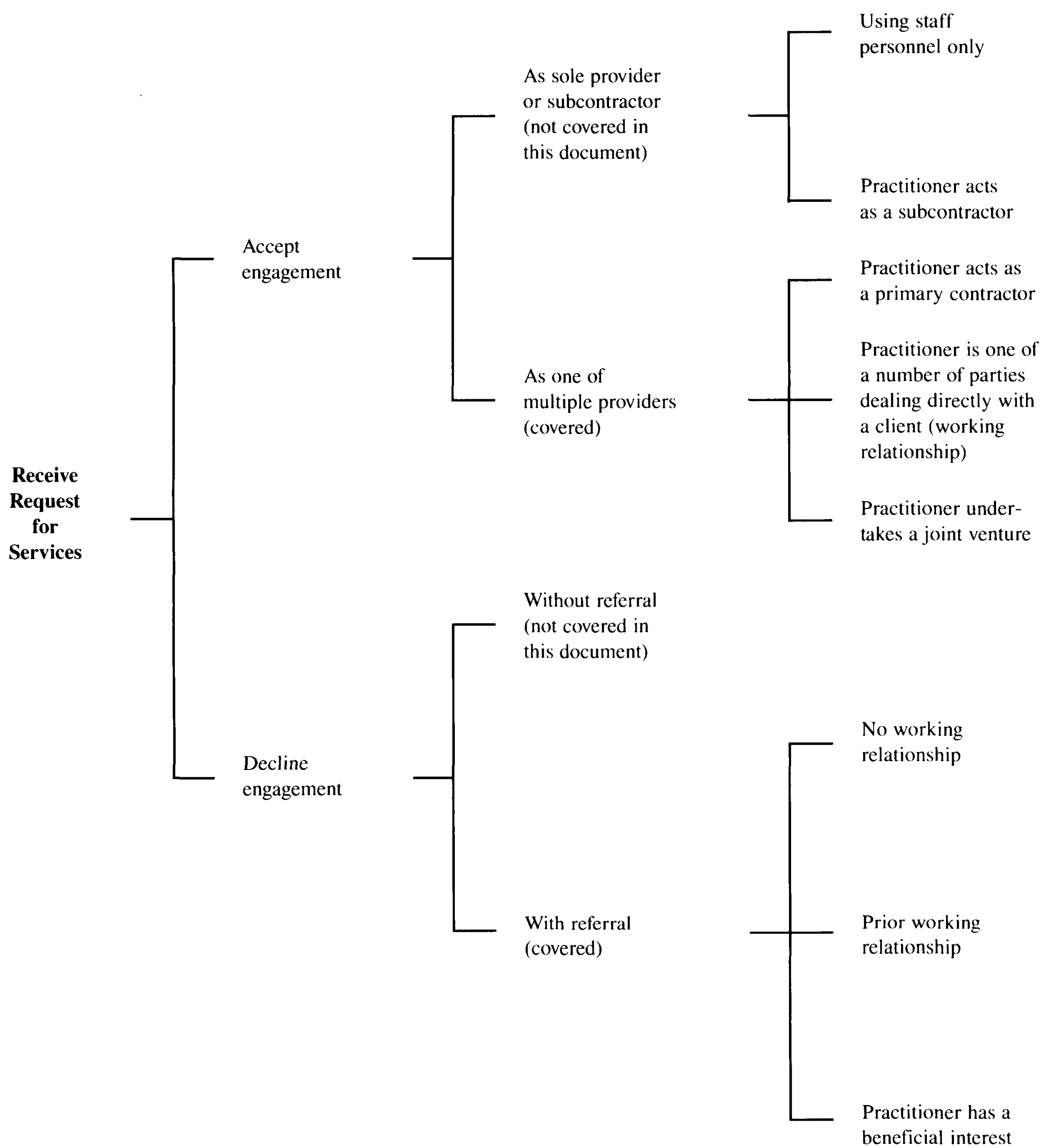
[2] If the practitioner participates as a subcontractor, the participation may not involve direct contact with the end-user and is not treated here as a cooperative engagement. However, in some cases the practitioner may wish to consider it as such and act accordingly.

Figure 5-4

Practitioner Decision Process



.17 There are three types of cooperative consulting services engagements:

a. The practitioner as a primary contractor subcontracts part of the engagement to others not in the firm.

b. The practitioner is but one of many independent providers of services to a common client, and a close working relationship between the parties is necessary. (In this situation, the client acts as the primary contractor.)

c. The practitioner undertakes a joint venture (that is, the practitioner establishes a special-purpose business entity with other parties in order to perform an engagement and dissolves the business entity on completion of a project or projects).

.18 A practitioner participating in a cooperative consulting services engagement needs to be aware of increased planning complexities. The practitioner also needs to comply with general standards of the profession, including the Statement on Standards for Consulting Services. Consequently, there is a need for professional competence to administer, supervise, and review the work for which the firm is taking responsibility, including any work done by outside personnel if the practitioner is the primary contractor. Appendix 5/A provides a checklist to assist a practitioner entering into a consulting services engagement.

.19 **Selecting Participants**. For the practitioner acting as primary contractor, careful selection of participants for a cooperative effort can be vital to the success of the overall engagement, because one participant's engagement performance may directly or indirectly affect another participant's performance. Accordingly, the practitioner needs to determine that participants have the qualifications and resources necessary for their respective roles. To evaluate a prospective participant's qualifications, a practitioner may use business, financial, client, and personal references. In addition, professional certifications of and materials authored by the prospective participant, as well as the practitioner's personal evaluation, may be useful. The table in figure 5-5 provides additional leads.

.20 **Developing a Participation Agreement**. Careful planning and supervision are needed to coordinate and maintain responsibility for cooperative engagements. Participants may want to draft a formal agreement describing the engagement plan and the manner of supervision. The content of such an agreement would depend on the complexity of the engagement, the participants' cooperative relationship, applicable regulations, the client's requirements, and other factors. In developing an agreement, participants need to determine everyone's role. To aid the process, the practitioner and the participants can—

- Identify all participants and their relationships to each other.
- Identify alternative participants should any of the selected participants be unable to perform or complete their assigned tasks.
- Clarify each participant's relationship to the client, including communication between the participants and the client.

- Identify each participant's project tasks, establish a schedule for completing the tasks, and identify respective responsibilities for completing segments of the engagement.

- Establish who is responsible for engagement supervision and control.

- Identify the method, form, and timing for reporting findings and recommendations to the client.

Figure 5-5

Institutional Examples of Sources for Referrals and Cooperative Engagement Participants

Type of Participant	*Source*
Another CPA firm	State CPA Society Executive Director and MCS Committee Chairman
Educator/Consultant	Local university faculty Managerial Consultation Division of the Academy of Management (contact through faculty member at local university)
Management consulting firm	ACME (Association of Management Consulting Firms), 230 Park Avenue, New York, NY 10169 Council of Consulting Organization 230 Park Avenue, New York, NY 10169

.21 When a practitioner, as a primary contractor, engages others to participate in a consulting services project, the practitioner does not lessen the firm's responsibility for the entire engagement. For example, interaction with a client in a cooperative engagement may be particularly sensitive. Accordingly, the client may need to be made aware of the participants, the understanding among the participants, and how the participants relate to engagement fulfillment and responsibility.

.22 **Communicating Results**. A practitioner who assumes responsibility for an engagement generally reports on the entire engagement. However, when a practitioner works with others in a cooperative engagement and the client assumes primary responsibility for the work, the participants can report jointly or individually, specifying which aspects of the engagement each participant performed. Figure 5-6 describes various formats for proposals and reports.

Figure 5-6

Proposals and Reports

The practitioner may wish to consider communications between the participants and the client when proposing a cooperative consulting services engagement. Proposals and reports for cooperative engagements may be issued in various formats, including the following:

1. The practitioner issues the proposal or report, assuming full responsibility for the work of other participants. This is appropriate when the practitioner is the primary contractor and is competent to evaluate other participants' work.

2. The practitioner issues the proposal or report, specifically identifying those aspects of the engagement involving reliance on other participants' work. This is appropriate when the client is the primary contractor.

3. Another participant issues the proposal or report, either assuming full responsibility for the practitioner's work or identifying those aspects of the engagement for which the practitioner is responsible. This is appropriate when the practitioner is an identified subcontractor.

4. A joint proposal or report is issued by participants, with the scope of each participant's work clearly defined. This is appropriate when the practitioner and the other participants agree that the involvement of each participant is significant enough to warrant a joint proposal or report.

5. Separate proposals or reports are issued. This is appropriate (*a*) for proposals or reports involving cooperative participation without a contractual relationship among participants, (*b*) when separate reports appear desirable and are acceptable to the client, or (*c*) when separate reports are requested by the client.

   The practitioner may wish to retain and exercise the right to review the proposal and any subsequent presentation of the firm's findings and conclusions when engaged as a subcontractor.

.23 Consulting Services Referrals. When a practitioner refers a client to another source after the client has requested consulting services, such action might be a consultation as defined in the Statement on Standards for Consulting Services No. 1. The following are some types of practitioner referrals:

- A practitioner, declining to fulfill a client's request for consulting services, refers the client to another consulting services practitioner or another source who may be able to provide the service to the client but with whom the practitioner has no prior or ongoing working relationship.

- A practitioner, declining to fulfill a client's request for consulting services, refers the client to another consulting services practitioner or another source of the needed services that the practitioner has a prior working knowledge of and believes can fulfill the request for services.

- A practitioner, declining to fulfill a client's request for consulting services, refers the client to another consulting services practitioner or another source who, it is believed, has the ability to provide the requested services and with whom the practitioner maintains a beneficial interest.

.24 In accepting a referral, a client may believe that the referral comes from an objective and unrelated source unless informed otherwise. In addition, the client may assume that the referred party is able to perform the requested consulting services satisfactorily. Therefore, in referring clients to others, a practitioner may wish to make it clear that a referral is not an endorsement, stating the basis for the referral without instilling an undue degree of reliance. In referring clients to others, it is important to recognize that an undue degree of reliance on the suggested source might occur simply because of the practitioner's referral.

.25 Practitioners may encounter an increasing number of complex client requests for consulting services because of the continued growth of opportunities. In some cases, these projects may warrant cooperative consulting services engagements with others or, if the practitioner chooses, may be referred to others in their entirety. Cooperative consulting services engagements involve establishing the roles of all participants and developing an engagement plan that provides for supervision and control to enhance the conduct of the engagement.

5/115 HUMAN RESOURCES FOR A CONSULTING PRACTICE

.01 Effective human resources management in a consulting services practice needs to be founded on two elements: (*a*) a formal planning process for the firm and its consulting services practice, and (*b*) a clear understanding of the roles and required skills of consulting services professionals. Such a foundation will facilitate meeting staff needs and selecting and developing professionals.

Mission and Plans

.02 A thorough planning process includes defining the mission for the consulting services practice, identifying the technical and geographic scope of services, developing strategies, determining the financial resources to be committed for the consulting services practice, and integrating the consulting services practice with the audit, tax, and other areas of the firm.

.03 A consulting services mission statement needs to be derived from and complement the mission of the firm. It serves as a basis for defining the consulting services practice unit's operating goals, organization, administration, and development, and, although the mission statement has a long-term perspective, it needs to be reviewed frequently.

Consulting Services Practice Roles

.04 Consulting services professionals play five different roles within the firm: technician, staff consultant, project leader, internal practice leader, and external practice leader. Often these roles coincide with the different stages of a professional's career path. They provide a foundation for developing staffing plans, organizing the recruitment and development processes, and planning career development. Depending upon the size and scope of the consulting services practice, an individual may function in one, several, or all of these roles in a firm.

.05 **Technician**. As a technician, the professional performs technical tasks, such as programming and testing, under direct supervision, conducts standard analyses, and documents and organizes data.

.06 **Staff Consultant**. Staff consultants interview client personnel and collect data. They also perform analyses and develop preliminary conclusions based on their research. Staff consultants often develop initial report drafts of findings and recommendations. In addition, they may supervise other staff consultants and technicians.

.07 **Project Leader**. Project leaders plan, organize, and direct client projects and monitor project effectiveness and efficiency. They work with client personnel to obtain information, provide project feedback, and define and implement corrective actions as required. Project leaders must also motivate, direct, and develop staff and technicians.

.08 **Internal Practice Leader**. Internal practice leaders provide management and administrative support for the practice and establish and monitor quality control. In this role, these professionals build teamwork and cooperation by fully using other professionals in the practice. Practice leaders manage more demanding client engagements and work primarily with existing clients to expand services.

.09 **External Practice Leader**. External practice leaders actively network with influential groups and individuals to identify potential clients and scan the environment for new and enhanced services. They also seek commitments for client engagements and manage client relations. They provide practice leadership, ensuring responsiveness and quality in client engagements. On more demanding engagements, they support internal practice leaders in enhancing trust and confidence. These professionals also represent the firm or practice group in outside activities.

Desired Qualities of a Consulting Services Professional

.10 Consulting services professionals, like others in public accounting, need to be bright, quick learning, and capable of theoretical as well as practical thinking. They also need to demonstrate leadership in unstructured client development, supervision, and project management settings and be capable of building trust and credibility in responding to client needs.

.11 Personal traits that contribute to quality performance include initiative and a strong commitment to goals. Self-confidence, an outgoing personality, and the ability to work on a team also contribute to the success of a consulting services professional.

.12 In addition to these personality traits, a consulting services professional requires—

a. *Problem-solving skills*, including intelligence, creativity, pragmatism, and an ability to think analytically. Also required are communication and quantitative skills.

b. *Administrative skills*, including attention to detail and the ability to organize and prioritize work activities.

c. *Interpersonal skills*, including poise, social confidence, responsiveness to others, and the ability to communicate effectively both orally and in writing.

d. *Technical skills*, including all the knowledge, tools, approaches, and techniques required by the technical aspects of their assignment.

.13 Although these skills and traits are desirable for all consulting services professionals, some are more critical to success in certain roles. Figure 5-7 indicates the relative importance of each skill or trait in each of the five roles previously outlined. In a consulting services practice, these personal traits and skills are needed for success in business development as well as in client engagements.

Recruitment and Selection

.14 Although the process of identifying professional consulting services candidates, evaluating them, and making employment offers is broadly similar to the recruitment process for other CPA firm professionals, there are some significant differences. Recruiting of consulting services professionals can be more demanding for several reasons. First, the sources of candidates may be quite diverse. Second, candidates may gain required skills in various settings, thus making it difficult to assess how their skills will serve them in a consulting services environment. Third, experienced candidates without an accounting firm background require more information to understand the distinctive operations of a CPA firm. Their transition to a CPA firm environment may require a great deal of attention and may often be stressful and frustrating for both new employees and firm management. For these reasons the commitment of substantial resources and management attention to recruiting and selecting consulting services professionals is usually justifiable.

.15 **Identifying Candidates**. The first step in identifying candidates is to carefully analyze the skill requirements for the particular role. The next step is to identify the best and the brightest of the candidates. This requires an organized and aggressive approach with appropriate follow-through. Recruitment is most effective when the practice unit maintains continuity in its relations with referral sources.

.16 Candidates fall into three categories: entry-level candidates, experienced candidates without a consulting services background, and experienced consulting services professionals. Different strategies are useful for identifying the type of each candidate.

.17 *Entry Level Candidates*. Some college students are prepared for direct entrance into a consulting services practice. These students may have undergraduate or graduate degrees in technical fields, such as computer science, accounting, finance, and engineering. They bring the latest technical skills, energy, and the ability to learn. Because of their lack of experience, however, they also require the greatest effort in training and in helping to adapt to a professional environment.

Figure 5-7

Skills and Traits Required in Consulting Services Professional Roles

Skills and Traits	*External Practice Leader*	*Internal Practice Leader*	*Project Leader*	*Staff Consultant*	*Technician*
Problem-solving skills					
Analytical thinking	I	I	V	I	V
Creativity	I	I	V	I	I
High intelligence	I	I	I	I	V
Pragmatism	V	V	V	I	I
Quantitative skills	L	L	I	I	V
Administrative skills					
Attention to detail	I	I	I	V	V
Ability to prioritize	I	V	V	I	I
Ability to organize	I	V	V	I	I
Interpersonal skills					
Poise	V	I	L	L	L
Responsiveness to others	V	V	I	I	L
Communication skills (oral and written)	V	V	V	V	V
Technical skills	I	I	I	V	V
Personal traits					
Initiative	V	V	I	I	I
Commitment	V	V	V	V	V
Goal orientation	V	V	V	I	I
Team orientation	I	V	V	I	L
Self-confidence	V	V	I	I	I
Honesty	V	L	L	L	L

Key: V-Vital
I-Important
L-Lesser in importance

.18 Recruiting entry-level individuals at college campuses is often highly competitive. Some firms have a long history of attracting graduates from selected schools. A firm that is recruiting at a campus for the first time, however, needs to be prepared to spend considerable time and money to gain the support of campus placement staffs, faculty, and students. A firm's consulting services practice can expect to devote significant effort to getting its unique message across to entry-level candidates.

.19 *Experienced candidates without a consulting services background.* Sometimes, practice units may seek more mature candidates or ones with experience and skills gained from within the firm or in industry. Recruiting consulting services professionals within the firm often reduces the risks associated with hiring outsiders while expanding the career opportunities of these professionals. The challenges of recruiting internally include achieving interdepartmental cooperation and accurately evaluating a candidate's ability to operate in the relatively unstructured environment of a consulting services practice. Consulting services candidates developed internally bring to the consulting services practice a knowledge of the firm's culture, practices, and clientele. However, like entry-level candidates, they may require extensive training in special practice areas and consulting services skills.

.20 Industry serves as a valuable source of candidates without consulting services experience. These individuals bring to the practice group highly developed skills and hands-on experience. The most reliable referral sources for experienced candidates from outside the firm include vendors, members of professional organizations, professional contacts, college faculty, licensing and certifying bodies, and alumni placement services.

.21 Advertising for candidates may be an easy and inexpensive means of attracting candidates. This method, however, is often less effective for attracting the best candidates who are generally already satisfied in their current positions and therefore do not routinely review classified advertisements. When using advertising, the recruiter needs to take care in writing the ad and in choosing the publication in which it will appear.

.22 Effective advertisements accurately and succinctly describe the position, its qualifications, and its career potential. They need to be written in terms sufficiently general to attract a representative range of candidates and not discourage candidates whose experience does not exactly meet the requirements. The firm may want to ask for applicants' salary so that they can be immediately informed when their requirements exceed the salary being offered. Advertising also requires a significant expenditure of time to screen resumes and to set up and conduct interviews.

.23 Recruiters use local, regional, national, and trade publications for advertising. Most publications, upon request, provide valuable information about their subscribers. The appearance and timing of an advertisement are important considerations. Advertisements within boxes or with borders usually attract more interest than classified ads. Advertisements placed in the middle of the week or on Sundays when the readership is greater usually draw a higher number of respondents.

.24 Professional recruitment firms are also effective sources of industry-trained candidates. Although fees generally range from 20 percent to 35 percent of the employee's projected first-year salary, these firms, by using their own organized approach and resources, often save clients a great deal of time and energy. The cost of using a recruitment firm is especially justified when candidates are needed quickly, when highly skilled candidates are sought, or when a national search is required. Finally, several firms have found it highly cost effective and good for morale to reward employees for referrals of candidates.

.25 **Fully Experienced Consulting Services Professionals.** Recruiters can identify candidates with consulting services experience by using many of the methods they rely on to identify industry-trained professionals. Sources include direct referrals, advertisements, and executive search and employment agencies.

.26 **Evaluating Candidates.** The most effective methods for evaluating candidates are interviews and reference checks. These may be supplemented by psychological testing.

.27 **Interviews.** Two levels of interview are effective for screening candidates. An introductory interview by phone or in a short meeting provides an initial impression and helps in assessing the candidate's interest. Then, to screen more qualified candidates, several of the firm's professionals conduct a second interview at the firm's office. All interviews need to be fully documented, preferably by means of a standardized form that lists evaluation criteria. The characteristics included in figure 5-7 may provide a basis for developing an evaluation criteria form.

.28 During this in-depth interview, the interviewers devote as much time to describing the job requirements and its career potential as they do to evaluating the candidates. Being courteous and organized during the interviews is important. Candidates get a positive impression if the firm provides helpful information about the firm and the community before the interview, makes efficient travel arrangements, schedules meetings with critical people, informs them of the selection process, and reimburses expenses promptly.

.29 *Reference and background checks.* Often the best predictor of a candidate's success is previous performance. In the case of a recent graduate, the firm obtains a full understanding of academic achievement and work experience, along with personal or faculty references. In the case of an experienced candidate, the firm checks, with the candidate's approval, background and references. The objectives of these checks are to—

- Verify the candidate's assertions regarding education, compensation history, employment history, and accomplishments.
- Obtain more detailed information of previous work responsibilities and projects and form an opinion about the candidate's general suitability for the position.
- Obtain additional insight into the strengths, weaknesses, and special qualities likely to affect the candidate's success.
- Assess the compatibility of the candidate's character and personality with the position and overall organization.

.30 *Psychological assessment.* The firm may wish to have a psychologist evaluate the candidate to confirm the impression that has been made and to provide more insight into the candidate's potential. Such an assessment, which may involve testing, job sampling, or other structured techniques, provides a deeper analysis of an individual's nontechnical strengths and weaknesses. This information can help the firm to predict how likely the candidate is to succeed and may also be useful in creating a career development program.

Figure 5-8

Relative Importance of Assessment Methods

Desired Skills and Traits	*Interview*	*Reference Check*	*Psychological Assessment*
Problem-solving skills			
Analytical thinking		P	S
Creativity		S	P
High intelligence		S	P
Pragmatism	S	P	
Quantitative Skills		S	P
Administrative skills			
Attention to detail		P	S
Ability to prioritize		P	S
Ability to organize	S	P	
Interpersonal Skills			
Poise	P		S
Responsiveness to others		P	S
Communication skills (oral and written)	S	P	
Technical skills	S	P	
Personal traits			
Initiative		P	S
Commitment		P	S
Goal orientation	S	P	
Team orientation		P	S
Self-confidence	P	S	
Honesty	P		S

Key: P-Primary
S-Secondary

.31 *Professional accreditations.* Finally, recruiters need to recognize that candidates who have met relevant accreditation and ongoing continuing professional education requirements demonstrate not only their competency in basic skills, but also the level of their career commitment and professional orientation. A listing of some of the organizations that can assist practitioners to acquire skills and knowledge is provided in appendix 5/B.

.32 Figure 5-8 indicates the appropriateness and relative importance of the three methods of evaluating candidates for each of the skills and traits required of a consulting services professional. It can also serve as a checklist that an interviewer may want to review before screening candidates.

.33 **Selecting Candidates**. After collecting all information on the final candidates, the decision makers meet to determine which ones are acceptable and which one is most suited to the job. If a candidate is highly qualified, the group formulates an offer. If no candidate is acceptable, the recruiters develop a plan for beginning the process anew.

.34 **Making an Offer and Following Up**. During interviews, such complex issues as overtime, bonuses, and career progression usually arise. Since the selected candidate may have additional questions about these issues, the recruiter needs to make the job offer in person. This will allow any remaining problems to be resolved. Making the offer by telephone is an acceptable alternative. In either case, the firm needs to follow up the oral offer with a written confirmation. The confirmation includes—

- The position title, along with a description of the position and of the role the professional will be expected to play in the firm.
- Details of base, overtime, and incentive compensation, benefits, and compensation adjustment dates.
- Details of reimbursement policies for relocation expenses and of any help the firm is willing to provide with relocating, banking, and other services during the transition.
- The time period in which the offer will remain in effect.
- Any special restrictions or commitments, such as a noncompete or client purchase agreement, that firms often require of professional employees.

.35 The firm should follow up a job offer in an organized and consistent way. This helps to ensure that the candidate fully understands the offer, has had all questions properly addressed, and has gained the support of others in the firm.

.36 In a courteous, succinct letter, the firm informs rejected candidates that they were not selected. A mention of possible future consideration, when appropriate, may serve to leave a positive impression.

Career Development

.37 As the practice and staff develop, professionals need to acquire new skills or enhance existing ones. To help them meet increased or new demands, the firm needs to direct attention to the work environment, training, performance review and feedback, and compensation.

.38 **Work Environment**. The work environment needs to be organized to motivate consulting services professionals effectively. The quality of the work environment is influenced by the degree of professionalism present, the planning of work loads, the quality of internal communication, opportunities to participate in administration, and teamwork.

.39 *Professionalism*. The firm needs to promote the highest standards of professional work quality, presentation of the practice, and timely delivery of service. When the staff primarily consists of people with industry backgrounds, ensuring professionalism in their approach to projects and client service is especially critical.

.40 *Scheduling*. Proper planning of staff work loads will demonstrate the firm's commitment to the development of the consulting services professional. However, planning for the long term and predicting trends in the types of client engagements are difficult in a consulting services practice because of the nonrecurring nature of the work. Despite these difficulties, the firm needs to balance satisfying the firm's commitments, meeting the client's needs in a timely manner, recognizing personality issues between the consulting services staff and client personnel, and providing challenging assignments to stimulate the consulting services staff. In scheduling its staff, the firm also recognizes that senior consulting services personnel usually have less chargeable time because of their greater marketing and training responsibilities.

.41 *Internal communications*. Consulting services professionals spend much of their time away from the office. Regularly scheduled departmental staff meetings are therefore an excellent means for all members of the practice to learn and address various practice management issues. Feedback surveys and exit interviews also assist in obtaining critical information and communicating with staff.

.42 *Participation in firm administration*. At the appropriate point in the professional's career path, participation in managing the practice can be a valuable learning experience, as well as a strong motivator. A consulting services professional also needs to be encouraged to show initiative in enhancing service offerings and targeting new clients.

.43 *Team involvement*. Consulting services engagements often require bringing together individuals with different experience and skills to meet the client's requirements. This provides valuable opportunities for learning and builds teamwork, loyalty, and commitment.

.44 **Skill Development**. At the time of joining the practice, consulting services professionals need to be oriented to the firm's culture, management practices, services, and clients. Throughout their careers, professionals need to participate in a training program designed to enhance their skills and prepare them for new responsibilities. The training program needs to address technical, industry-related, and general consulting skills. It may be offered both internally and externally.

.45 *Technical skills*. Consulting services professionals use specialized, technical skills to define and resolve client problems. Consequently, the program for developing and maintaining technical capabilities in the firm's areas of practice is critical. For example, each of the four most common consulting services areas—systems, finance, operations, and human resources—will emphasize different types of training in its programs.

- **Systems**. A systems consultant's technical skills focus on the collection, analysis, and organization of information. The consultant uses basic skills to evaluate client information needs and develop appropriate systems solutions. The systems consultant may need to apply these skills to several industries. Potential areas for training of systems consultants include

  - Systems analysis and documentation.
  - Systems architecture and design.
  - Hardware and software selection.
  - Networking and data communication.
  - Data base design.
  - Industry-related software.

- **Financial**. Financial professionals focus on collecting data and analyzing financial information, using specialized techniques and tools. Areas for their technical training include

  - Forecasts and projections.
  - Cash flow analysis.
  - Investment analysis.
  - Cost accounting.
  - Budgeting.

- **Operations**. The operations consultant focuses on analyzing the methods and processes used in the primary operation of the client's business. Areas for technical training include

  - Capital planning and utilization.
  - Production scheduling.
  - Service delivery/product distribution.
  - Computer-integrated manufacturing.
  - Work design and staff utilization.
  - Business process analysis.

- **Human resources**. The human resources management consultant assists clients by developing programs to promote the efficient use and development of personnel. Potential areas of training include

    - Organizational planning and design.
    - Human resources information systems development.
    - Wage and salary administration.
    - Employment practices development.
    - Benefits management.
    - Organizational change management.
    - Total quality management.
    - Team building.

.46 *Industry skills*. Specific industry skills and knowledge are necessary to provide quality client service. These skills can be learned through in-house or external programs. Additionally, each professional needs to participate actively in relevant organizations and activities. Examples of these organizations include the American Bankers Association, the American Hospital Association, and the National Restaurant Association.

.47 *Consulting skills*. Providing consulting services requires professionals with well developed consulting skills. These skills ensure their ability to assess client needs, organize and manage a consultation project, deliver a valuable service, and develop a strong client relationship. Ongoing training in the following areas contributes to a professional's growth and success:

- Project management
- Supervision
- Client relations
- Report writing
- Interviewing
- Marketing and sales
- Presentations

.48 **Training Methods**. An effective training program includes both formal and informal programs.

.49 *Informal training*. Informal training includes such activities as after-hours gatherings, staff meetings, mentoring, and on-the-job training. Of these, on-the-job training is likely to be the most valuable. Although practice aids, case studies, and readings provide general guidelines and valuable insights, participating in actual engagements under the supervision of senior staff has the most potential for training consulting services professionals. By working with several senior-level professionals, staff learn that different consulting styles are successful in different situations. They also learn that the professional's relationship with the client can take many forms and that consulting skills play a major role in cultivating that relationship. Figure 5-9 is a list of activities that contribute to skill development.

.50 *Formal training.* A formal training program requires a well-defined curriculum addressing the educational needs of professionals according to their specialty and experience. The curriculum can combine in-house and external training. In-house training is broken down into self-study courses, readings, and instructor-led classes. The most important component of a formal training program is the appointment of trained counselors who are committed to working with professionals on the development of a comprehensive annual training plan.

Figure 5-9

Activities Contributing to Skill Development

Activity	*Level of Training Possible*
Writing proposals	I
Writing engagement letters	I
Identifying potential consulting services for current clients	B, I
Creating work plans and budgets for current clients	I, A
Reviewing files for consulting services engagements	B
Preparing checklists	I, A
Preparing questionnaires	I, A
Preparing work papers and analyzing data	B, I
Preparing flowcharts and organization charts	B, I
Developing implementation plans	I, A
Completing client needs assessment forms	B, I
Attending client and senior staff planning meetings	B
Interacting with client staff	B
Handling client phone calls	B, I, A
Presenting proposals with alternative solutions to clients	I, A
Reinforcing consulting services staff with positive and consistent feedback	I, A
Overseeing the implementation of solutions	I, A
Delivering formal presentations	I, A
Establishing credibility through community involvement	B, I, A
Marketing oneself as a CPA firm professional	B, I, A

Key: B Basic
I Intermediate
A Advanced

.51 The firm can obtain training materials and course offerings from various sources. There are programs taught by several professional and education organizations, such as state societies, product vendors, universities, the AICPA, and other industry trade groups. Appendix 5/B lists representative providers of training, along with their addresses, membership requirements, types of programs, and the levels of training offered.

.52 **Performance Review and Feedback.** Performance reviews and feedback need to be designed to help professionals assess their strengths and improve their performance in critical areas. There are three approaches to the function: ongoing day-to-day reviews during engagements, formal review at the conclusion of an engagement, and periodic formal performance reviews.

.53 *Day-to-day reviews.* The firm assesses the consultant's performance and communicates the assessment to the individual on a daily basis. This practice encourages open discussion and ensures that the best course of conduct for the engagement will be followed.

.54 *Formal engagement reviews.* At the conclusion of an engagement, the consulting services professional receives a review of the quality and conduct of the work performed. This review encourages constructive discussion, highlighting accomplishments and pointing out areas where improvement is needed. Engagement reviews are written, typically on evaluation forms designed to address consulting services skills and project tasks, and become part of the professional's personnel file.

.55 *Formal performance reviews.* The formal performance review involves assessments by both the professional being evaluated and the supervisor of how well the employee is meeting the firm's standards and his or her own goals and objectives. As part of the review process, both individuals set objectives for the coming period. The professional is encouraged to offer feedback regarding the firm and, in turn, receives feedback on promotion potential and compensation. Formal performance reviews need to take place at least annually and preferably semiannually.

.56 *Compensation.* Compensation provides a means to communicate the firm's values and goals to the professional by expressing approval of current performance or encouraging change. An equitable compensation program can be a significant incentive. In developing such a program, the firm needs to consider several factors. The most important factor is the compensation received by individuals with comparable responsibilities in public practice, at other consulting organizations, and in other businesses. This is important because consulting services professionals may be more inclined than accounting or tax professionals to compare their salaries with those outside the field.

.57 Other factors to consider in developing a compensation program include—

- The contents of the total package including base pay, overtime, bonuses, and profit sharing, as well as additional vacation, tuition reimbursement, and other perquisites.

- The relative contribution of the professional to the financial success of the firm. This contribution is not necessarily measured only by chargeable hours.

- The compensation of others in the firm with similar responsibilities.
- Incentive compensation related to the development of the practice or risk-sharing with the firm.
- The financial health and position of the firm.

Conclusion

.58 In a CPA firm, the management of consulting services human resources differs from that of other areas. To be effective, human resources management in a consulting services practice needs to be founded on two elements: (*a*) formal planning for the firm and its consulting services practice, and (*b*) a clear understanding of the roles of and skills of the firm's consulting services professionals. Such a foundation help the practice meet needs and select and develop its staff.

.59 Professionals recruited for a consulting services practice often gain the skills required in various settings, and a public accounting firm may not have been one of them. Consequently, the firm may need to commit substantial financial and managerial resources to find and select appropriate candidates and to ensure their smooth entry into the practice. In addition, to deploy these professionals effectively and to retain them, the firm needs to provide a desirable work environment, continual training, meaningful performance review and feedback, and competitive compensation.

APPENDIX 5/A

COOPERATIVE CONSULTING SERVICES ENGAGEMENT CHECKLIST

Consulting services engagement arrangements are often established when submitting a proposal to the client. Before preparing a proposal for a cooperative consulting services engagement, a practitioner needs to consider such matters as the following:

	Yes	*No*	*Not Applicable*
1. Is the nature of the relationship among participants clear?	______	______	______
2. Are the nature and substance of the relationship between each participant and the client clear?	______	______	______
3. Does each participant understand the relevant provisions of the agreement with the ultimate client?	______	______	______
4. Were representations made to the client or others that would suggest arrangements other than those that exist?	______	______	______
5. Has the period of the agreement been established in terms of expected starting and completion dates or events?	______	______	______
6. Were procedures for possible changes in the engagement or in the relationship among participants established?	______	______	______
7. Have special requirements imposed by the client been covered? (Services for government entities warrant particular attention in this respect.)	______	______	______
8. Have professional standards and ethics that are to apply to all participants (including those parties normally not affected by them) been communicated?	______	______	______
9. Have fees and expenses and the procedures for their determination, billing, and collection been agreed on, together with provisions such as early termination, penalty payments, or liquidated damages?	______	______	______
10. Have participants' rights to writings, ideas, concepts, and patents been established, especially when one participant is expected to bring specialized or proprietary knowledge to an engagement?	______	______	______

	Yes	No	Not Applicable
11. Have key personnel to be provided by participants been specified, by name if appropriate, with a clear indication of the extent of their involvement?			
12. Has independent contractor status, as distinguished from that of employee or agent, been established when appropriate?			
13. Have insurance requirements, such as workers' compensation, professional liability, performance bonds, or other appropriate indemnifications among the parties, been established?			
14. Have facilities to be provided by each participant, such as working space and clerical and support services, been covered?			
15. Have ownership, retention, and access to work papers been established?			
16. Has a work program covering each participant's performance, work products, documentation and schedule requirements been established?			
17. Have internal progress-reporting procedures been defined?			
18. Have reports to clients been agreed on (for example, frequency, format, responsibility for preparation, participants' rights to review, resolution of disagreements among participants, and right of direct access to the client)?			
19. Have prerogatives relating to any future engagements with the same client been defined?			

APPENDIX 5/B

REPRESENTATIVE CONTINUING PROFESSIONAL EDUCATION PROGRAMS

Organization	*Program Level*	*Membership Requirements*	*Representative Programs*
AICPA 1211 Avenue of the Americas New York, NY 10036-8775 (212) 596-6200	Basic to advanced	Must be a CPA	Consulting Services Practice Skills Consulting Services Engagement Management Planning and Control Systems Manufacturing Marketing Organizational Human Resources Development Management Information Systems Internal Professional Services Research and Development Finance Personal Financial Planning Other Consulting Services
Various State CPA Societies	Basic to intermediate	Must be a CPA	One-day seminars on— Overview of Consulting Services topics Litigation Support Personal Financial Planning 2-hour lunch and breakfast brainstorming/sharing sessions
Universities and Colleges (AICPA cosponsored)	Basic to intermediate	CPA-MCS practitioners	National MCS Training for Development of MCS skills Advanced MCS skills
American Management Association 135 West 50th Street New York, NY 10020 (212) 903-8270	Basic to advanced	Corporate	2,000 courses in 12 Divisions on— Finance General Management Insurance and Risk Management Manufacturing Marketing Information Systems and Technology Research and Development Human Resources Packaging International Management Purchasing, Transportation, and Physical Distribution General and Administration Services Seminars Self-study audio-cassettes/workbooks

Organization	*Program Level*	*Membership Requirements*	*Representative Programs*
Council of Consulting Organizations 230 Park Avenue New York, NY 10169 (212) 697-9693	Intermediate	Individual 5 years' experience (3 immediately preceding application) 1 year of engagement management experience Bachelor's degree Summaries of 5 client assignments Written examination and oral interview Membership not necessary to attend continuing education programs	Professional Practice Management Consulting Practice Management Consulting Services Marketing Change Implementation in a Consulting Practice Emerging Technologies Consulting Practice Performance Appraisals Consulting Practice Fundamentals of Management Consulting (Beginning Level)

APPENDIX 5/C

SOURCES OF TECHNICAL INFORMATION

The following is a listing of professional organizations that provide certification and accreditation programs in specialty areas that may be of interest to consulting services practitioners. Many of these organizations sponsor educational programs, publish information, and set standards for the provision of services related to the specialty. Other trade and professional organizations also publish technical and industry information. The names and a brief description of the activities of these organizations are provided in *Encyclopedia of Associations* (Detroit: Gale Research Institute), which is published annually.

American Institute of Certified Public Accountants
MCS Division
Harborside Financial Center
201 Plaza III
Jersey City, NJ 07311-3881
201-938-3503

Sponsors accreditation program for Business Valuation Specialists who meet certain specific requirements.

American Society of Appraisers
P.O. Box 17265
Washington, DC 20041
703-478-2228

Awards professional designation of ASA to senior members with at least five years' valuation experience, who have successfully passed written and oral examinations and meet other criteria.

Appraisal Institute
225 N. Michigan Avenue, Suite 724
Chicago, IL 60601-7601
312-819-2400

Awards designation of MAI to specialists in the appraisal of all types of properties and SRA to specialists in residential appraisals.

Association of Machinery and Equipment Appraisers
110 Spring St.
Silver Spring, MD 20910
301-587-9335

Accredits professional appraisers of machinery used for metalworking, woodworking, and chemical and food processing, who meet AMEA standards of ethics and proficiency in evaluation procedures.

Institute of Business Appraisers
P. O. Box 1447
Boynton Beach, FL 33435
407-732-3202

Conducts an advancement program that includes the award of the professional designation Certified Business Appraiser (CBA) to qualifying members engaged in the practice of business valuation and appraisal.

Office Automation Society International
6348 Munhall Ct.
McLean, VA 22101
703-821-6650

Confers professional certification.

International Foundation of Employee Benefit Plans
18700 W. Bluemound Rd.
P.O. Box 69
Brookfield, WI 53008
414-786-6700

With the International Society of Certified Employee Benefit Specialists, cosponsors the Certified Employee Benefit Specialist Program (CEBS) in the U.S. and Canada, a ten-course college level study program leading to a professional designation in the employee benefits field.

International Society of Certified Employee Benefit Specialists
18700 W. Bluemound Rd.
P.O. Box 209
Brookfield, WI 53008-0209
414-786-8771

Members are graduates of the Certified Employee Benefit Specialist program, cosponsored by the International Foundation of Employee Benefit Plans.

Society of Certified Credit Executives
P.O. Box 27357
St. Louis, MO 63141-1757
314-991-3030

Members are credit executives who have been certified through the SCCE's certification program.

Society of Cost Estimating and Analysis
101 S. Whiting St., Ste. 313
Alexandria, VA 22304
703-751-8069

Provides certification program that supports technical and ethical standards through participation in workshops, involvement in professional programs, completion of accredited university courses, and successful completion of certification examination.

American Society for Industrial Security
1655 N. Ft. Myer Drive, Ste. 1200
Arlington, VA 22209
703-522-5800

Maintains professional certification program for industry officials responsible for loss prevention security and government employees engaged in security work.

National Association of Certified Fraud Examiners
716 West Ave.
Austin, TX 78701
512-478-9070
800-872-4678

Administers credentialling program for Certified Fraud Examiners.

Association of Productivity Specialists
200 Park Ave.
New York, NY 10017
212-286-0943

Maintains Merit Recognition Program, which awards Master (MPS), Advanced (APS), and Certified (CPS) Productivity Specialist designations for individuals who meet certain specific requirements.

Project Management Institute
P.O. Box 43
Drexel Hill, PA 19026-3190
215-622-1796

Offers Project Management Professional certification.

APPENDIX 5/D

ILLUSTRATIVE MARKETING FORMS AND CHECKLISTS

Exhibit 5D-1

Analysis of Scope of Services

Analysis of Your Practice

1. Which services bring in most revenue? ______________________________
   ____

2. Are there identifiable groups of clients who require these services (market segments)?
   Yes ☐ No ☐
   Explanation: ______________________________
   ____

3. Where do these clients come from?______________________________
   ____

4. Enumerate the leading referral sources and briefly look at how you obtained these clients.
   a. ______________________________
   b. ______________________________
   c. ______________________________
   d. ______________________________

5. Are potential clients within these segments accessible? Yes ☐ No ☐

6. If so, with what media?______________________________
   ____

7. Look to see if there is a pattern to the types of services or groups of clients you serve. Do certain groups of clients usually require certain types of services (e.g., physicians)?
   Yes ☐ No ☐
   Explanation: ______________________________
   ____

8. Are these service client groups expandable? Yes ☐ No ☐

9. If yes, from your existing client base, from the addition of new clients, or both?
   Explanation: ______________________________
   ____

10. Are there patterns or specific categories associated with the most important segments of your client base?
    Yes ☐ No ☐
    Explanation: ______________________________
    ____

11. Are there other services that provide benefits within the same category which perhaps are undersold to these client segments?
Yes ☐ No ☐
Explanation: ____________________
____

12. Assess which services or groups of clients are decreasing in revenue-generating potential. Determine why and draw some conclusions. Has this decline been gradual or sudden?
____
____

13. Do the types of services or groups of clients you serve imply that your firm has an area of expertise that other firms do not enjoy?
Yes ☐ No ☐
Explanation: ____________________
____

14. Could this expertise be stated as a "selling point" to potential clients?
Yes ☐ No ☐
Explanation: ____________________
____

15. Identify the services you would like to expand or start offering (e.g., litigation services):
____
____

16. Which groups of your present client base would have a need for these services?
____
____

17. Look at the capabilities of your staff. Which areas are understaffed or overstaffed in terms of demand? ____________________
____

18. Are the occurrences of understaffing and overstaffing gradual or sudden?
____
____

19. Identify firm policies that impose growth limitations (e.g., types of services you cannot or will not offer, or number of partners the firm could support). ____________________
____
____

20. Explain some tentative goals for:

    a. Existing services you need to continually emphasize to targeted groups of clients.

    b. New services you need to offer to identifiable groups of clients.

    c. Staffing capabilities you need to enhance or develop.

    d. Changes in prospecting or referral development efforts directed toward key clients.

    e. Technological or location changes (e.g., computers or branch offices).

21. How do you believe current clients rate your firm and its principal competitors, particularly with respect to reputation, fee schedules, and quality of services rendered?

22. Do you have measurable corporate objectives that are appropriate, given the firm's competitive position, resources, and specialization?
    Yes ☐ No ☐
    Explanation:

23. Has your firm identified the marketing tasks that must be completed before your objectives can be met?
    Yes ☐ No ☐
    Explanation:

24. How do you periodically measure these? ______________________________

Analysis of the Marketplace

25. Determine the size of your professional service area by quickly identifying the geographic locations of your client. Do they cluster? If so, why?
Yes ☐ No ☐
Explanation: ______________________________

26. Is it possible to expand your service area (perhaps adjacent cities), or should you restrict your efforts to the most promising section of your service area?
Yes ☐ No ☐
Explanation: ______________________________

27. What is a realistic size considering the services you wish to offer, the capabilities of the firm, and the geographic concentrations of potential client groups?

28. After determining the services you wish to offer to targeted client groups, assess the substantiality of those groups within your trading area.

29. Are there other MCS firms that are aggressively seeking to offer the same types of services to similar client segments?
Yes ☐ No ☐
Explanation: ______________________________

30. From the standpoint of a buyer of management consulting services, try to project why a client should employ the services of your firm over another firm. Be as objective as possible.

31. What is the nature of competition among management consulting firms in your area?

32. Do any use targeted promotional campaigns or do the majority rely on similar time-tested techniques of referral development, newsletters, or active involvement in a host or community organization?
Yes ☐ No ☐
Explanation: ____________________

33. What are the weaknesses in your major competitor's strategy? ____________________

34. How do your promotional efforts and fee structure compare with those of competing firms appealing to the same targeted groups of customers?
____

35. Do the differences in fee structure represent real differences in the depth, breadth, and quality of services offered by competing firms, or do they represent the need to cover overhead and administrative expenses?
Yes ☐ No ☐
Explanation: ____________________

36. How price conscious are buyers within each segment? ____________________

37. Try to determine if there is a unique selling proposition for your firm that (a) enhances the image of your firm, (b) implies or states an area of professional concentration, and (c) highlights a benefit that is important to the client. That is, what should be communicated to new clients and serves as your basis for competitive differentiation?

38. How do you acquire information about changes in the marketplace? ____________________

39. Is there any informal, yet informative, marketing information system?
Yes ☐ No ☐
Explanation: ____________________

Exhibit 5D-2

MCS Marketing Plan Evaluation Questionnaire

Sales and Profitability

1. Are revenue goals being met as measured in dollars, numbers of engagements, and scope of engagements?
   Yes ☐ No ☐
   Explanation:______________________________

2. Is the volume of new business commensurate with the time expended and money spent?
   Yes ☐ No ☐
   Explanation:______________________________

3. Is new business meeting profit targets?
   Yes ☐ No ☐
   Explanation:______________________________

4. Are goals for proposal activity and lead generation being met?
   Yes ☐ No ☐
   Explanation:______________________________

5. Does the success rate in competing for projects meet the established goals?
   Yes ☐ No ☐
   Explanation:______________________________

6. Are plan expenditures in time and dollars meeting budget?
   Yes ☐ No ☐
   Explanation:______________________________

Strategic and Tactical

7. Is the new business, proposal, and lead activity occurring in the industries and geographic and functional areas targeted by the plan?
   Yes ☐ No ☐
   Explanation:____

8. Is the consulting services marketing activity consistent with the firm's marketing objectives?
   Yes ☐ No ☐
   Explanation:____

9. Are procedures for identifying follow-on activities included in the plan?
   Yes ☐ No ☐
   Explanation:____

10. Is an appropriate share of new business the result of marketing plan activities rather than established relationships?
    Yes ☐ No ☐
    Explanation:____

Personnel

11. Are deadlines and responsibilities being met?
    Yes ☐ No ☐
    Explanation:____

12. Are the appropriate personnel in place to implement the plan?
    Yes ☐ No ☐
    Explanation:____

13. Is the marketing effort contributing to the professional development of management and staff?
    Yes ☐ No ☐
    Explanation:____

14. Does compensation, particularly incentive compensation, reflect achievement under the plan?
Yes ☐ No ☐
Explanation:____

15. Is the marketing plan conducive to teamwork and positive employee morale?
Yes ☐ No ☐
Explanation:____

16. Is training adequate to provide staff with the skills necessary to effectively implement the plan?
Yes ☐ No ☐
Explanation:____

17. Has an appropriate level of acceptance of the plan been attained within the firm?
Yes ☐ No ☐
Explanation:____

Public Relations

18. Has the plan been successful in making the firm's consulting practice known to its target markets including existing clients?
Yes ☐ No ☐
Explanation:____

19. Have public relations activities been effective in expanding the MCS referral network?
Yes ☐ No ☐
Explanation:____

20. Is there an appropriate level of client satisfaction with the consulting services that have been provided?
Yes ☐ No ☐
Explanation:____

21. Do the consulting services offered fill existing and targeted client needs?
    Yes ☐ No ☐
    Explanation:____
    ____
    ____

Exhibit 5D-3

MCS Marketing Activities Review Form

	Date of Last Occurrence	*Subject*	*Performed By*
News Releases			
New staff	______	______	______
Promotions	______	______	______
Anniversaries	______	______	______
Organization changes	______	______	______
New offices	______	______	______
New services	______	______	______
Company growth	______	______	______
Speeches	______	______	______
Civic and community activities	______	______	______
Research findings	______	______	______
Publications			
• Books	______	______	______
• Brochures	______	______	______
• Articles	______	______	______
Current events commentary	______	______	______
Company meetings	______	______	______
Attendance at meetings	______	______	______

	Date of Last Occurrence	*Subject*	*Performed By*
Speeches			
Management groups	______	______	______
Law firms	______	______	______
Technical groups	______	______	______
Trade associations	______	______	______
Business trips	______	______	______
Banks	______	______	______
Information in reports	______	______	______
Mentions			
Magazines			
• Special departments	______	______	______
• Letters to the editor	______	______	______
Newspapers			
• Local stories	______	______	______
• Local columnist	______	______	______
• Syndicated columnist	______	______	______
Radio	______	______	______
Television	______	______	______
Feature Articles			
Magazines			
• General Business	______	______	______
• Trade	______	______	______

	Date of Last Occurrence	*Subject*	*Performed By*
• Consumer general interest	________	________	________
• Consumer special interest	________	________	________
Newspapers			
• Local or regional	________	________	________
• Wire services	________	________	________
• Syndicated columnists	________	________	________
• Sunday supplements	________	________	________
Newsletters			
• In-house publications	________	________	________
• Association publications	________	________	________
Mailings			
Ad reprints	________	________	________
Feature articles	________	________	________
Pertinent clippings	________	________	________
Giveaways	________	________	________
Helpful information	________	________	________
Advertising			
Institutional	________	________	________
Direct sell	________	________	________
Professional card	________	________	________
Books			
Complete works	________	________	________

	Date of Last Occurrence	*Subject*	*Performed By*
Chapters developed	________	________	________
Contributing editor	________	________	________
Sources for quotations	________	________	________
Community Activities			
Fundraising drives	________	________	________
Civic groups	________	________	________
Social clubs	________	________	________
Charitable groups	________	________	________
Chambers of commerce	________	________	________
Brochures			
General	________	________	________
Specific	________	________	________
• By service	________	________	________
• By client group	________	________	________
Clients			
Meeting with prospective clients	________	________	________
Research on prospective clients	________	________	________
Taking clients to lunch	________	________	________
Extra-curricular activities with clients	________	________	________

Exhibit 5D-4

Summary of Direct Mail Guidelines

Mailing Format

The letter is first in importance.

The most effective mailing package consists of an outside envelope, letter, brochure, response form, and business reply envelope.

Letters

Letters with indented paragraphs draw more responses than those in which paragraphs are not indented.

Underlined important phrases and sentences increase slightly the number of responses.

A separate letter with a separate brochure draws more responses than a brochure that includes the letter.

Authentic testimonials from clients increase the number of responses.

A two-page letter is more effective than a one-page letter.

Brochures

A brochure dealing specifically with the issue presented in the letter is more effective than a general firm qualifications brochure.

A combination of art and photography produces a better brochure than one using only one or the other.

In selling high-cost services, large color brochures, although more expensive, are usually more effective than smaller brochures.

A two-color brochure is more effective than a one-color brochure.

Full color brochures are effective in the promotion of high cost services only if the fidelity of color reproduction is good.

Reply Forms

A reply form printed in colored ink or on colored paper draws more reponses than one printed in black on white paper.

Reply cards with receipt stubs draw more responses than cards with no stub.

"Busy" request forms that look important produce a larger response than neat, clean-looking forms.

Postage-paid business reply cards draw more responses than those requiring the respondent to affix postage.

A reply envelope increases responses.

Postage

First-class mail is far better than third-class mail.

Postage stamps are better to use than a meter.

II Financial Consulting Services

Part II–Financial Consulting Services

7/100 DEVELOPING A BUDGET

CONTENTS

7/100 DEVELOPING A BUDGET

7/105 SCOPE OF THIS PRACTICE AID

.01 This practice aid provides practitioners with information to assist clients in developing a budgeting process and a budget. It may also help practitioners and members in industry develop guidelines and techniques for predicting income, expenses, and cash flow. The approach to the budgeting process described in this practice aid is not the only feasible approach. Practitioners may use any approach warranted by specific requirements and circumstances. They may also adapt the illustrative forms and case study in this practice aid to fit particular client situations. The forms and the study are not recommended for use in every situation.

7/110 RECOGNIZING THE NEED FOR A BUDGET

.01 Many small business owners are experts in production or sales, but they know relatively little about the financial aspects of their businesses. Under these circumstances, the practitioner can advise clients about the benefits of a formal budgeting process and help them achieve such benefits. The budget may be developed either as an integral part of a business plan or to address operational issues such as the following:

- Lack of growth or excessively rapid growth
- Low profits
- Inadequate compensation for the owner
- The owner's lack of understanding of the business
- Company ratios that are inconsistent with industry ratios
- Inadequate working capital
- Underutilization of physical and human resources

7/115 ENGAGEMENT CONSIDERATIONS

.01 The practitioner may perform all phases of the budget development process (from the preliminary survey through the final recommendation, including implementation and monitoring) or may assist management only in parts of the process. The extent and nature of the practitioner's work will depend on the client's capabilities, the engagement circumstances, and the practitioner's ability to provide such services.

.02 Throughout a consultation or an engagement involving the budget development process, the client provides essential data, objectives, and assumptions.[1] The practitioner always assumes the role of advisor, allowing the client to decide on the budget alternatives.

.03 Close involvement in the budget development process is advisable for line managers, particularly those directly affected by the budget. One way in which their involvement can be facilitated is through management by objectives (MBO). Their participation can increase commitment to the budget, which may ultimately determine its success or failure.

.04 The practitioner who provides a financial forecast or projection that is intended for more than just internal use, needs to refer to appropriate professional literature on prospective financial information.[2]

Client Evaluation

.05 An engagement to develop a budget process may be initiated by the practitioner, based on observations of the client, or the client may request it.

.06 To determine whether to undertake a consulting service involving the development of a budget for a new client, a practitioner may review the circumstances of the client's request.[3] In initial discussions with the prospective client, the practitioner might seek to obtain answers to the following questions:

- Has the prospective client had prior experience with a budget, and if so, was it successful?
- What circumstances prompted the prospective client to request budgeting assistance?
- Has the prospective client previously engaged an accountant, and if so, why is another being sought?
- Who referred the prospective client?

[1] For definitions of *consultation, engagement,* and other consulting services, see the Statement on Standards for Consulting Services, No. 1 in section 2/110.

[2] See the Statement on Standards for Accountants' Services on Prospective Financial Information, *Financial Forecasts and Projections,* and the *Guide for Prospective Financial Statements* (New York: AICPA, 1992).

[3] For a definition of *advisory services,* see the Statement on Standards for Consulting Services.

- With whom does the prospective client bank?
- What law firm does the prospective client use?
- Was the prospective client involved in any earlier business ventures, and if so, what were the results? What is the nature of the current business?
- What is the financial history of the current business?
- Who are the owners or partners?
- Does the management team have the experience and education to make the business a successful one?
- Is the prospective client seeking to establish a continuing relationship with the practitioner or asking for one-time-only assistance?

.07 In deciding whether to accept the new client, the practitioner may be guided by the following additional considerations:

a. Would accepting the prospective client be in keeping with professional standards and with the practitioner's or the firm's policies?

b. Does the practitioner believe that the benefits of the budgeting engagement are cost-effective?

c. Does the practitioner possess the budget development competence to successfully complete the engagement?

Engagement Understanding

.08 Before starting a budgeting engagement, the practitioner and the client reach an understanding about the objectives, scope, and benefits of the service to be performed. The engagement objectives are normally spelled out in a letter or memorandum that might include the following items:

- The specific activities involved in developing the budget
- The respective roles of the practitioner and the client (including a clear statement that the client will decide on alternatives and provide assumptions)
- The anticipated results and benefits
- The point at which the engagement will be considered complete
- The proposed fees, the billing schedule, and the manner of payment

- A signature line indicating the client's written acceptance

A sample engagement letter is provided in appendix 7/A.

Preliminary Survey

.09 The practitioner may wish to conduct a preliminary survey to clarify the client's budgetary process or information system and to identify the strengths and weaknesses of the process. However, the practitioner often can also base initial judgments about the positive or negative aspects of the client's system on prior experience and knowledge of the client. If a preliminary survey is necessary, the practitioner frequently performs it as the first step of the engagement.

.10 The practitioner's inquiries in a preliminary survey generally are directed at obtaining answers to the following questions:

- How does management forecast volume?[4]
- What are the capacities of the plant or facility, the equipment, and personnel?
- How does management determine cost and selling price?
- What is management's profit goal?
- What financial statements does management receive?
- What is done with excess resources?
- What is the appropriate budget period?
- What is the detail level of the budget?

.11 Based on the results of the preliminary survey, the practitioner formulates an initial approach to achieve the engagement objectives and develops an appropriate work program.

7/120 CONDUCTING THE ENGAGEMENT

.01 A budgeting engagement usually consists of the following four phases:

a. Fact-finding

[4] Throughout this practice aid, the terms *forecast* and *projection* and their variations are used according to standard dictionary definitions, *not* as they are used in the AICPA Statements on Standards for Accountants' Services on Prospective Financial Information.

b. Budget development

c. Final report

d. Implementation and monitoring

Fact-Finding

.02 When helping a small business client to prepare a budget, a practitioner gathers information in sufficient detail to identify potential weaknesses and strengths in any areas of the budget process, to corroborate preliminary survey data, and to confirm the engagement understanding.

.03 The information to be gathered may include the following:

- Prior budget information, if any
- Historical financial data
- Market share and sales forecast
- Plant and equipment availability
- Descriptions of the
  - Cost accounting system
  - Estimating or quoting system
  - Management information system
  - Marketing and distribution system
- Management goals and objectives
- Personnel availability and capabilities
- Plans for the development and introduction of new products and services

Budget Development

.04 After gathering essential information about the client's objectives, resources, and internal information systems during the fact-finding process, the practitioner is ready to start the budget development phase of the engagement. Much of budget development involves the mechanical, arithmetical manipulation of data, which can be facilitated by microcomputer technology and electronic spreadsheet software programs. These programs can do the routine calculations needed to prepare the prospective financial statements and, equally important, to perform computations based on "what if" scenarios.

.05 Budget development encompasses the following steps:

a. Forecast unit sales volume

b. Evaluate the ability to provide the forecasted volume

c. Compute the cost of providing the forecasted volume

d. Identify the cost of all other operating expenses

e. Determine the price of products or services

f. Compute the dollar sales volume

g. Prepare the projected income statement

h. Prepare the projected cash flow statement and the balance sheet

i. Compare actual results with budget projections

j. Evaluate the results

.06 The order of these steps may be modified to fit the individual client's situation. For example, if a client budgets to achieve a desired result, the steps will be reversed.

.07 **Forecast Unit Sales Volume.** The budget process begins with a forecast of units to be sold during the budget period. Increases or decreases in quantities are based on the client's evaluation of expected activity with new and existing customers, forecasted activity from new products or services to be made available to customers, or projected increases or decreases in market share. In addition, the sales forecast may be reevaluated after determination of the appropriate selling price.

.08 **Evaluate the Ability to Provide the Forecasted Volume.** The practitioner evaluates the client's ability to provide the forecasted unit volume. This evaluation may involve determining how the company will secure the products or services needed to meet the sales forecast or how the company's production capacity will be expanded to meet the sales forecast.

.09 If expansion of capacity is impossible or economically unfeasible, the practitioner reviews the forecast. The decision tree in appendix 7/B provides an illustration of this evaluation process. Each branch of the decision tree addresses a crucial factor involving funding, time, or personnel. For example, if increased funding is needed, then the client's ability to acquire the funding, either internally or externally, determines whether the forecasted volume is obtainable.

.10 In the case of increased volume, any necessary changes in productivity might take so long that the client will be unable to reach the level of forecasted volume during the budget period. One reason for this delay might be that the personnel required to meet increased volume levels have not yet been employed and trained.

.11 If the client can provide the forecasted volume, the practitioner considers whether there is substantial excess capacity. If so, the practitioner assesses whether the excess capacity should be eliminated or maintained for future growth, or whether the original forecasted volume should be revised to use the excess capacity.

.12 **Compute the Cost of Providing the Forecasted Volume.** After confirming the forecasted sales volume and the ability to provide the products or services, the practitioner and the client compute the cost of providing the forecasted volume. They closely examine all existing cost factors and compute the relative changes created by the forecast. Items to consider include—

- An estimate of the goods and services needed from third parties, based either on quotations from the third parties or on estimates made by the client's staff.

- Salary and wages of current employees, including increases that will be granted during the forecast period, and the estimated compensation of any additional or laid-off personnel.

- Variable expenses that are traceable as dollars or percent of volume. Some of these expenses will remain totally variable in relation to the increase or decrease in volume; others will become semifixed, because they are not governed solely by volume.

- Fixed expenses, which the practitioner and client verify will remain at the forecasted level, notwithstanding an increase or decrease in productivity and volume.

.13 **Identify the Cost of All Other Operating Expenses.** After forecasting the client's unit sales and the costs of providing these units, the practitioner identifies the cost of other operating expenses, such as sales and administrative expenses. Sales expenses may encompass commissions, salaries, advertising costs, and delivery and freight charges. The practitioner determines whether these are variable or fixed expenses, based on the forecast. Other operating expenses include product or service development costs; administrative expenses, such as executives' salaries, staff salaries, and professional fees; and overhead costs for office supplies and postage, communications systems, taxes, and interest expense. These operating expenses are normally fixed in nature but may include some variable elements. The practitioner evaluates and includes all these cost factors in the budget to determine the total projected cost of operating the business during the budget period.

.14 **Determine the Price of Products or Services.** The client evaluates and sets prices in light of competition, existing market conditions, and profit expectations. The practitioner might have to revise estimated sales volume and costs to meet the client's profit goals or might even have to assess whether certain products or services can be profitable, given market conditions. More information on pricing is provided in this manual in section 11/100, "Using Budgeting to Price Services," and in section 64/100, "Assisting Clients in Pricing Manufactured Products."

.15 Compute the Dollar Sales Volume. The practitioner can compute the dollar sales volume by multiplying product price by forecasted unit sales volume.

.16 Prepare the Projected Income Statement. Using the computed dollar sales volume, the cost of providing the forecasted volume, and the operating expenses, the practitioner prepares an income statement for the budget period. (Exhibit 7C-2 in appendix 7/C provides a sample income statement.) The practitioner may need to prepare a separate schedule or the cost of goods sold. (Exhibit 7C-1 in appendix 7/C provides a sample statement.) In addition, the practitioner includes estimated income from other sources (such as interest) in the projected income statements.

.17 This income statement will produce either an acceptable or an unacceptable result of operations. An unacceptable result will require changes in planning and assumptions, including sales forecasts, prices, or costs.

.18 Prepare the Projected Cash Flow Statement and the Balance Sheet. Next the practitioner prepares the projected cash flow statement (see appendix 7/C, exhibit 7C-3) and the balance sheet (see appendix 7/C, exhibit 7C-4). The practitioner may find it helpful to prepare these statements simultaneously because they involve interrelated assumptions. Both the balance sheet and the cash flow are affected by decisions about accounts receivable turnover, inventory turnover, bank loans, payment of accounts payable, and fixed asset acquisitions. Preparation of these statements may uncover problems related to one or more of the assumptions used during the budget process. In this event, the practitioner will have to revise the original assumptions.

.19 Compare Actual Results With Budget Projections. Incorrect projections can undermine a budget by impairing the ability to establish realistic benchmarks. Therefore, the practitioner and the client need to compare actual results with budget projections. A difference may indicate inadequate information or operational weakness, and corrective action may be needed.

.20 Evaluate the Results. Throughout the entire process, the client's goals have influenced the assumptions about profitability, cash flow, ability to pay owners' salaries, reduction of debt, and any number of other items. A review of these items and the projected income statement, balance sheet, and cash flow will give the client a good idea of whether goals can be achieved under the budgeted conditions. If specific objectives have not been realized, the practitioner and the client can reexamine and revise the assumptions. It may be necessary to start at the beginning with a new analysis of the forecast of unit volume or only small modifications may be needed. The final budget is the result of the adjustment of assumptions by management to reflect realistic market conditions.

Final Report

.21 The primary engagement output consists of the complete budgeted income statements, balance sheets, and cash flow statements. The practitioner discusses these items in detail with the client and may also include graphs and charts to aid the presentation.

Implementation and Monitoring

.22 The completion of a budget does not represent the final phase of client assistance. Preparing the budget enables the client to compare the transactions that will take place over the budget period to the budget itself and thus exercise greater control over the internal and external forces affecting the business.

.23 Each month the client can reexamine the original assumptions in light of actual operating results. If the business is running close to the projection, no modification may be needed. If facts and circumstances related to policy, marketplace conditions, or competition have changed significantly from the original assumptions, and these changes are expected to continue, the practitioner and the client may modify the budget during the year.

.24 Minor changes in facts and circumstances may not always require a budget revision. It may be more practical to recognize that these budget variances will exist during the balance of the budget period and then to incorporate any new assumptions or revisions in the budget process for the next period.

.25 The budget process described in this practice aid provides frequent opportunities to reassess assumptions and recompute the impact of the revised assumptions on the client company. The practitioner needs to encourage the client to make reassessment an integral part of the company's budget process.

APPENDIX 7/A

SAMPLE ENGAGEMENT LETTER

CPA & Co.
Anytown, USA 12345

April 17, 19XX

Mr. Robert Jones
XYZ Company
15 Main Street
Anytown, USA 00000

Dear Mr. Jones:

This letter confirms our understanding that CPA & Co. will assist you in implementing your budget process and preparing your budget.

Our engagement will consist of the following:

1. We will review the research underlying your assumptions and offer suggestions and comments, as necessary.

2. Using our prior knowledge of your company and industry, we will evaluate the assumptions to be used in the budget.

3. We will assist in preparing the budget. The expected reports include—

   - A budgeted income statement.

   - A budgeted balance sheet.

   - A budgeted cash flow statement.

4. On completion of the budget, we will be available to evaluate the actual results against the budget. We will help you arrive at alternative courses of action based on these results, as applicable.

We base our fees for these services on time expended at our standard rate. We will send invoices to you each month, based on work performed. Fees are due on receipt.

Please signify your acceptance of these terms by signing below and returning one copy.

Sincerely,

____

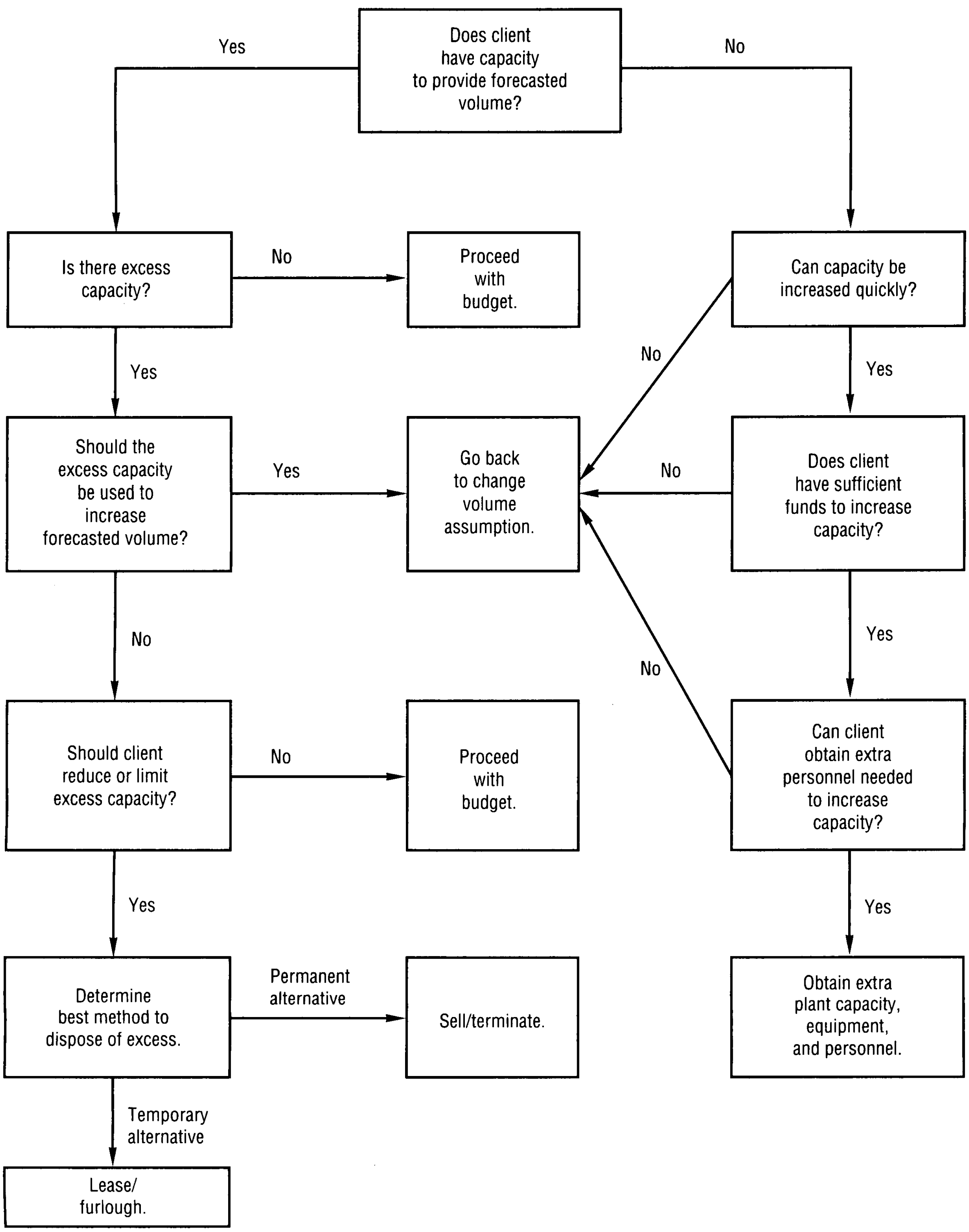
CPA & Co.

Accepted by ____________________

Date _________________________

APPENDIX 7/B

DECISION TREE: EVALUATING AND BALANCING A CLIENT'S CAPACITY TO PROVIDE THE FORECASTED VOLUME



APPENDIX 7/C

CASE STUDY: DEVELOPING A BUDGET FOR ROYCO, INC.

This case study[5] illustrates how an owner-manager develops a sophisticated budget. Many clients will not require as detailed a budget as shown here; however, the developmental procedures described can be applied to most client situations.

Background

Royco, Inc., is a small manufacturer of stereophonic system components, primarily speaker units. The owner-manager also serves as the chief financial officer and has been engaged in several activities leading up to the preparation of the company's budget for next year. His objectives and assumptions are the result of many hours of evaluation, market assessment, and negotiations with bankers and other lenders. The budget is only as good as the assumptions on which it is based. The owner-manager's assumptions are as sound and realistic a reflection of the year's expectations as possible.

To ensure that this budget will prove effective for managing operations, the owner-manager of Royco has thought very carefully about these matters. He has based the Royco budget on an explicit set of objectives that anticipate a need for financing during periods of inadequate cash flow to—

- Sustain increased market penetration.
- Expand physical facilities to meet increased product demand.
- Improve product quality without significantly increasing unit cost.

Having established these objectives, Royco's owner-manager proceeds to develop the budget, using the following step-by-step approach.

Forecast Unit Sales Volume

After discussion with sales personnel, the owner-manager determined that a 25-percent increase in unit sales volume is feasible. The company markets multiple products, but most sales are of a single line of speaker units. Since no new products are being introduced, the increased sales are expected to result from gaining new customers and expanding sales into new territories.

Compute the Cost to Provide the Forecasted Volume

The owner-manager examined fixed and variable product expenses and estimated that the cost of providing the projected sales volume would be $718,600 for the year ending December 31.

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[5] Reprinted, with modification, by permission of Coopers & Lybrand from *Three-Way Budget: A Businessman's Guide to Cash Control* (New York: Coopers & Lybrand, 1982). In this case study, the owner-manager, not the practitioner, performs the budget development activities because *Three-Way Budget* was written for clients. In a consulting services engagement to develop a budget, the practitioner performs the activities in consultation with the client. Assumptions and decisions are the responsibility of the client.

Evaluate the Ability to Provide the Forecasted Volume

Early in the budget development process, Royco's owner-manager determined that the existing manufacturing facilities were inadequate to produce an increased number of units. Following a decision-tree analysis (see appendix 7/B), he concluded that if Royco constructs a new facility, the company will be able to produce not only next year's unit volume, but also that for future years in which further sales increases are expected.

In addition, a new facility will enable the company to minimize cost increases through greater productivity. The new facility will be financed by a $120,000 mortgage loan, for which a commitment has been obtained from a government development agency. Construction costs will be paid in four equal monthly installments during the next year. The owner-manager has also made the following assumptions:

- Labor, materials, and overhead costs will increase 10 percent.
- On an annual basis, Royco will achieve a 12.5-percent gross profit margin on sales. On a month-to-month basis, however, there may be variances.
- There will be a first-quarter inventory buildup for anticipated peak summer sales.

From January through September, 75 percent of material purchases will be paid in the month following procurement, and 25 percent will be paid in the subsequent month. From October through December, 100-percent payment will be made in the month following purchase.

Labor costs will be paid as incurred; overhead expenses will be paid after a one-month deferment.

Identify Other Operating Costs

Royco's owner-manager estimated that sales and general and administrative expenses, including interest, will also increase 10 percent. Payments on the new mortgage of $5,000 a month will start in October. There should be a $1,200-per-month reserve for estimated income tax payments. Interest expense will be paid as incurred, but other expenses will be paid in the month after they are incurred.

Determine Product Prices

The owner-manager determined that sales prices can be increased sufficiently to offset cost increases. However, the market for Royco's products is very competitive, so opportunities for future sales price increases may be limited.

Compute Sales Volume in Dollars

When the increased product prices are multiplied by the forecasted unit sales of each product, the result is an expected 30-percent increase in Royco's dollar sales volume. The owner-manager assumes that 40 percent of accounts receivable will be collected within thirty days, 50 percent within sixty days, and the remaining 10 percent within ninety days.

Prepare the Projected Income Statement

Royco's owner-manager prepared the income statement in two stages—the cost-of-sales statement and the income statement.

The cost-of-sales statement (see exhibit 7C-1) clearly reflects the seasonal factors inherent in the changing sales pattern and the company's productivity and vacation cycle. Insurance and property taxes (lines 5 and 8) are level throughout the year. Material purchases (line 2) reflect the inventory buildup during the first four months of the year, and the seasonal factor clearly shows up in the summer months (lines 3, 4, 6, and 9). Direct labor and related factory overhead costs are substantially lower, while maintenance and repair costs (line 7) are definitely higher during this same period, when maintenance will least interfere with production.

Cost of sales per month is one of the principal factors in projecting monthly earnings. The amount of detailed support needed to make this projection depends on the number of product lines and the mix of products manufactured by the company.

The income statement (see exhibit 7C-2) shows the rising and falling monthly sales expected for the year. Sales in the heaviest month, July, are more than double those in the lightest month, January. Because the cost of sales is staggered, the gross profit spread is even larger, ranging from $3,167 in January to $19,267 in July. Sales expenses rise dramatically from May through October, and administrative expenses are highest from March through September, because of heavy interest charges.

Earnings for the year are healthy, with gross profit running at the targeted 12.5 percent and net profit before and after taxes running about 6 percent and 3.5 percent, respectively.

Prepare the Projected Cash Flow and the Balance Sheet Statement

The time of a bank loan should be based on the cash flow statement (see exhibit 7C-3). Without bank loans (line 3), Royco would be unable to handle the heavy expenses entailed in the inventory buildup to meet summer sales. Even with the loans, the company will be cash poor in February and very tight financially through November. The statement serves both as an indicator of the right timing for a bank loan and as an early warning to management that if actual performance falls below the expected level, the company may have problems.

Breaking down the balance sheet (see exhibit 7C-4) for each month provides significant information to both management and lenders. Alone, the balance sheet shows an increase in total assets from the opening balance of $243,700 to the closing balance of $377,700. In conjunction with the other statements, it provides a broad, yet detailed, profile of projected company operations for the year, enabling both management and lenders to assess the year's prospects clearly and confidently.

Measure Actual Results Against Budget Projections

Preparing a budget is meaningless unless the information is used as a benchmark against which results are measured. In the case of Royco, monthly reports show a reasonable relationship between projections and results, but significant differences in July suggest the need for operational changes.

To illustrate this, exhibits 7C-5, 7C-6, 7C-7, and 7C-8 present the results of operations for the seven months ended in July. They show that sales before July were 3 percent higher than anticipated, but that July's sales were considerably overestimated. Royco's management believed sales would be low in July because labor strikes in a highly industrialized area had reduced consumer purchasing power. But sales were even lower than forecasted. Although raw material purchases declined in July, when sales decreases became apparent, the purchasing slowdown did not match the sales decrease. As a result, the owner-manager needs to consider action to deal with the effects of decreased accounts receivable, increased inventories, increased bank loans, and decreased payables.

Evaluate the Results and Make Revisions

Reviewing Royco's operating results (provided in exhibits 7C-5 through 7C-8), the owner-manager sees no other material variances (aside from the departure from the sales budget). In addition, the budget was off-course for reasons unrelated to any chronic condition that would influence future sales or cost expectations. Thus, preserving the basic budget, with appropriate reservations about conditions influencing the summer months, seems preferable to making budget revisions. Essentially, the budget needs to be seen for what it is—a practical guide to financial control.

Exhibit 7C-1

Royco, Inc.
Projected Statement of Monthly Cost of Sales
for the Year Ending December 31

	January	February	March	April	May	June	July	August	September	October	November	December	Summary of Year
Inventory— beginning of month	$ 68,000	$110,000	$157,000	$189,000	$210,000	$195,400	$178,200	$148,600	$120,200	$99,300	$92,800	$85,400	$ 68,000*
Material purchases	78,500	86,400	72,200	62,300	38,100	49,900	49,600	41,500	32,600	42,800	37,100	36,200	627,000
Direct labor	3,600	3,600	3,600	3,600	3,000	1,100	1,100	1,100	1,000	3,000	3,600	3,600	32,000
Factory overhead													
Fuel	800	800	800	600	400	200	200	200	400	600	800	800	6,600
Insurance	400	400	400	400	400	400	400	400	400	400	400	400	4,800
Utilities	1,500	1,500	1,500	1,500	1,000	900	900	900	1,900	1,000	1,500	1,500	15,600
Maintenance and repairs	300	300	300	300	1,500	2,000	2,000	2,000	1,500	600	300	300	11,400
Property taxes	633	633	633	633	633	633	633	633	633	633	633	637	7,600
Trucks	400	400	400	400	200	50	50	50	150	300	400	400	3,200
Employee benefits	50	50	50	950	50	50	50	50	50	950	50	50	2,400
Depreciation	1,350	1,350	1,350	1,350	1,800	1,800	1,800	1,800	1,850	1,850	1,850	1,850	20,000
	5,433	5,433	5,433	6,133	5,983	6,033	6,033	6,033	6,883	6,333	5,933	5,937	71,600
	155,533	205,433	238,233	261,033	257,083	252,433	234,933	197,233	160,783	151,433	139,433	131,137	798,000
Inventory—end of month	110,000	157,000	189,000	210,000	195,400	178,200	148,600	120,200	99,300	92,800	85,400	80,200	80,200**
Cost of sales	$ 45,533	$ 48,433	$ 49,233	$ 51,033	$ 61,683	$ 74,233	$ 86,333	$ 77,033	$ 61,483	$ 58,633	$ 54,033	$ 50,937	$718,600

*Beginning inventory as of January 1
**Ending inventory as of December 31

Exhibit 7C-2

Royco, Inc.
Projected Statement of Monthly Earnings
for the Year Ending December 31

	January	February	March	April	May	June	July	August	September	October	November	December	Summary of Year
Sales	$48,700	$52,500	$53,600	$55,100	$70,200	$89,400	$105,600	$93,200	$71,400	$65,800	$59,300	$55,200	$820,000
Cost of sales	45,533	48,433	49,233	51,033	61,683	74,233	86,333	77,033	61,483	58,633	54,033	50,937	718,600
Gross profit	3,167	4,067	4,367	4,067	8,517	15,167	19,267	16,167	9,917	7,167	5,267	4,263	101,400
Selling expenses													
Salaries and commissions	900	900	900	900	1,200	1,600	1,800	1,600	1,200	1,200	900	900	14,000
Advertising	100	100	100	100	300	600	800	600	300	200	100	100	3,400
Delivery and freight	150	150	150	150	300	650	850	650	350	200	150	150	3,900
Automobile	150	150	150	150	150	150	150	150	150	150	150	150	1,800
Depreciation	100	100	100	100	100	100	100	100	100	100	100	100	1,200
	1,400	1,400	1,400	1,400	2,050	3,100	3,700	3,100	2,100	1,850	1,400	1,400	24,300
Administrative expenses													
Salaries	900	900	900	900	900	900	900	900	900	900	900	900	10,800
Professional fees	125	125	125	125	125	125	125	125	125	125	125	125	1,500
Printing, postage, etc.	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Telephone and telegraph	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Business taxes and licenses	150	150	150	150	150	150	150	150	150	150	150	150	1,800
Sundry	50	50	50	50	150	150	150	150	150	150	50	50	1,200
Interest	200	575	1,090	1,555	1,705	1,665	1,620	1,400	1,080	860	750	700	13,200
	1,625	2,000	2,515	2,980	3,230	3,190	3,145	2,925	2,605	2,385	2,175	2,125	30,900
	3,025	3,400	3,915	4,380	5,280	6,290	6,845	6,025	4,705	4,235	3,575	3,525	55,200
Net profit before taxes	142	667	452	(313)	3,237	8,877	12,422	10,142	5,212	2,932	1,692	738	46,200
Income taxes	50	233	158	(109)	1,133	3,107	4,348	3,550	2,174	1,026	592	258	16,520
Net profit	$ 92	$ 434	$ 294	$ (204)	$ 2,104	$ 5,770	$ 8,074	$ 6,592	$ 3,038	$ 1,906	$ 1,100	$ 480	$ 29,680

Exhibit 7C-3

Royco, Inc.
Projected Statement of Monthly Cash Flow
for the Year Ending December 31

	January	*February*	*March*	*April*	*May*	*June*	*July*	*August*	*September*	*October*	*November*	*December*	*Summary of Year*
Cash receipts													
Receivable	$ 47,350	$ 47,580	$ 50,000	$ 52,560	$ 54,090	$ 60,990	$ 76,370	$ 93,960	$ 99,020	$ 85,720	$ 71,340	$ 63,760	$ 802,740
Mortgage loan	30,000	30,000	30,000	30,000	—	—	—	—	—	—	—	—	120,000
Bank loans	—	26,000	48,000	36,000	23,000	—	—	—	—	—	—	—	133,000
	77,350	103,580	128,000	118,560	77,090	60,990	76,370	93,960	99,020	85,720	71,340	63,760	1,055,740
Cash disbursements													
Raw material purchases	30,000	68,875	84,425	75,750	64,775	44,150	46,950	49,675	43,525	42,975	42,800	37,100	631,000
Direct labor	3,600	3,600	3,600	3,600	3,000	1,100	1,100	1,100	1,100	3,000	3,600	3,600	32,000
Factory overhead													
Insurance	—	—	—	—	—	—	4,800	—	—	—	—	—	4,800
Property taxes	—	—	—	—	—	—	7,600	—	—	—	—	—	7,600
Other, excluding depreciation	3,050	3,050	3,050	3,050	3,750	3,150	3,200	3,200	3,200	3,000	3,450	3,050	38,200
Selling expenses													
Salaries and commissions	900	900	900	900	1,200	1,600	1,800	1,600	1,200	1,200	900	900	14,000
Other, excluding depreciation	400	400	400	400	400	750	1,400	1,800	1,400	800	550	400	9,100
Administrative expenses													
Professional fees	—	—	1,500	—	—	—	—	—	—	—	—	—	1,500
Business taxes and licenses	—	—	—	1,800	—	—	—	—	—	—	—	—	1,800
Salaries	900	900	900	900	900	900	900	900	900	900	900	900	10,800
Interest	200	575	1,090	1,555	1,705	1,665	1,620	1,400	1,080	860	750	700	13,200
Other	250	250	250	250	250	350	350	350	350	350	350	250	3,600
Income taxes	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	14,400
Plant addition	30,000	30,000	30,000	30,000	—	—	—	—	—	—	—	—	120,000
Long-term debt repayment	—	—	—	—	—	—	—	—	—	5,000	5,000	5,000	15,000
Bank repayment	—	—	—	—	—	6,000	6,000	32,000	45,000	27,000	12,000	5,000	133,000
	70,500	109,750	127,315	119,405	77,180	60,865	76,920	93,225	98,955	86,285	71,500	58,100	1,050,000
Cash over (short)	6,850	(6,170)	685	(845)	(90)	125	(550)	735	65	(565)	(160)	5,660	5,740
Cash balance—beginning	—	6,850	680	1,365	520	430	555	5	740	805	240	80	12,270
Cash balance—end	6,850	680	1,365	520	430	555	5	740	805	240	80	5,740	18,010
Bank loan—beginning	—	—	26,000	74,000	110,000	133,000	127,000	121,000	89,000	44,000	17,000	5,000	
Loans (repayments)	—	26,000	48,000	36,000	23,000	(6,000)	(6,000)	(32,000)	(45,000)	(27,000)	(12,000)	(5,000)	
Bank loan—end	—	26,000	74,000	110,000	133,000	127,000	121,000	89,000	44,000	17,000	5,000	—	—
Bank security													
Accounts receivable	58,350	63,270	66,870	69,410	85,520	113,930	143,160	142,400	114,780	94,860	82,820	74,260	
Inventories	110,000	157,000	189,000	210,000	195,400	178,200	148,600	120,200	99,300	92,800	85,400	80,200	
	$168,350	$220,270	$255,870	$279,410	$280,920	$292,130	$291,760	$262,600	$214,080	$187,660	$168,220	$154,460	

Exhibit 7C-4

Royco, Inc.
Projected Monthly Balance Sheet
for the Year Ending December 31

	Opening Balance Sheet	January	February	March	April	May	June	July	August	September	October	November	December
Current assets													
Cash	$ —	$ 6,850	$ 680	$ 1,365	$ 520	$ 430	$ 555	$ 5	$ 740	$ 805	$ 240	$ 80	$ 5,740
Accounts receivable	57,000	58,350	63,270	66,870	69,410	85,520	113,930	143,160	142,400	114,780	94,860	82,820	74,260
Inventories	68,000	110,000	157,000	189,000	210,000	195,400	178,200	148,600	120,200	99,300	92,800	85,400	80,200
Prepaid expenses	—	—	—	1,125	2,200	1,925	1,650	6,544	5,236	3,928	2,620	1,312	—
	125,000	175,200	220,950	258,360	282,130	283,275	294,335	298,309	268,576	218,813	190,520	169,612	160,200
Fixed assets													
Cost	158,700	188,700	218,700	248,700	278,700	278,700	278,700	278,700	278,700	278,700	278,700	278,700	278,700
Accumulated depreciation	40,000	41,450	42,900	44,350	45,800	47,700	49,600	51,500	53,400	55,350	57,300	59,250	61,200
	118,700	147,250	175,800	204,350	232,900	231,000	229,100	227,200	225,300	223,350	221,400	219,450	217,500
	$243,700	$322,450	$396,750	$462,710	$515,030	$514,275	$523,435	$525,509	$493,876	$442,163	$411,920	$389,062	$377,700
Current liabilities													
Bank loans	$ —	$ —	$ 26,000	$ 74,000	$110,000	$133,000	$127,000	$121,000	$ 89,000	$ 44,000	$ 17,000	$ 5,000	$ —
Accounts payable	40,000	88,500	106,025	93,800	80,350	53,675	59,425	62,075	53,900	42,975	42,800	37,100	36,200
Accrued liabilities	3,700	5,008	6,316	7,249	8,532	9,415	11,148	5,350	4,950	4,150	4,350	3,700	3,700
Income taxes	—	(1,150)	(2,117)	(3,159)	(4,468)	(4,535)	(2,628)	520	2,870	3,844	3,670	3,062	2,120
	43,700	92,358	136,224	171,890	194,414	191,555	194,945	188,945	150,720	94,969	67,820	48,862	42,020
Long-term debt	—	30,000	60,000	90,000	120,000	120,000	120,000	120,000	120,000	120,000	115,000	110,000	105,000
Shareholders' advances	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000
Capital stock	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Retained earnings	150,000	150,092	150,526	150,820	150,616	152,720	158,490	166,564	173,156	177,194	179,100	180,200	180,680
	$243,700	$322,450	$396,750	$462,710	$515,030	$514,275	$523,435	$525,509	$493,876	$442,163	$411,920	$389,062	$377,700

Exhibit 7C-5

Royco,Inc.
Statement of Cost of Sales
for the Seven Months Ended July 31

	Month			Comments	Year to Date			Comments
	Projected	Actual	Difference Over (Under)		Projected	Actual	Difference Over (Under)	
Inventory—beginning of period	$178,200	$181,700	$ 3,500		$ 66,000	$ 68,000	$ —	
Material purchases	49,600	38,400	(11,200)	Down due to sales decrease.	437,000	440,900	3,900	Increased purchases due to increased sales; offset by July decrease.
Direct Labor	1,100	900	(200)	Production down due to decreased sales and inventory buildup.	19,600	19,900	300	Increased production to meet increased sales prior to July.
Factory overhead								
Fuel	200	200	—		3,800	3,650	(150)	Mild winter.
Insurance	400	450	50	Rate adjustment for new addition.	2,800	3,150	350	Rate adjustment for new addition.
Utilities	900	1,000	100	Increased power consumption because of heavy repairs.	8,800	9,050	250	Increased production to June plus July repairs.
Maintenance and repairs	2,000	2,600	600	Employee carelessness caused equipment burnout.	6,700	7,100	400	Fewer repairs during increased production to June.
Property taxes	633	667	34	Increased mill rate.	4,431	4,669	238	Increased mill rate.
Trucks	50	50	—		1,900	1,940	40	
Employee benefits	50	50	—		1,250	1,300	50	
Depreciation	1,800	1,800	—		10,800	10,800	—	
	6,033	6,817	784		40,481	41,659	1,178	
	234,933	227,817	(7,116)		565,081	570,459	5,378	
Inventory—end of period	148,600	165,950	17,350	Sales volume down.	148,600	165,950	17,350	
Cost of sales	$ 86,333	$ 61,867	$(24,466)		$416,481	$404,509	$(11,972)	

Exhibit 7C-6

Royco, Inc.
Statement of Earnings
for the Seven Months Ended July 31

	Month			Comments	Year to Date			Comments
	Projected	*Actual*	*Difference Over (Under)*		*Projected*	*Actual*	*Difference Over (Under)*	
Sales	$105,600	$72,200	$(33,400)	Industrial community riddled with strikes; consumers have decreased buying power.	$475,100	$452,850	$(22,250)	Sales volume up approximately 3% over projections prior to July.
Cost of sales	86,333	61,867	(24,466)		416,481	404,509	(11,972)	
Gross profit	19,267	10,333	(8,934)		58,619	48,341	(10,278)	
Selling expenses								
Salaries and commissions	1,800	1,600	(200)	Decrease in sales.	8,200	8,190	(10)	Varies with sales.
Advertising	800	800	—		2,100	2,150	50	
Delivery and freight	850	750	(100)	Decrease in sales.	2,400	2,350	(50)	Varies with sales.
Automobile	150	150	—		1,050	1,075	25	
Depreciation	100	100	—		700	700	—	
	3,700	3,400	(300)		14,450	14,465	15	
Administrative expenses								
Salaries	900	900	—		6,300	6,300	—	
Professional fees	125	125	—		875	875	—	
Printing, postage, etc.	100	145	45	Increased postal rates.	700	845	145	Increased postal rates.
Telephone and telegraph	100	120	20		700	770	70	
Business taxes and licenses	150	150	—		1,050	1,050	—	
Sundries	150	180	30		650	730	80	
Interest	1,620	1,635	15	Higher loan balance.	8,410	8,460	50	Higher loan balance.
	3,145	3,255	110		18,685	19,030	345	
	6,845	6,655	(190)		33,135	33,495	360	
Net profit before taxes	12,422	3,678	(8,744)		25,484	14,846	(10,638)	
Income taxes	4,348	1,287	(3,061)		8,920	5,196	(3,724)	
Net profit	$ 8,074	$ 2,391	$(5,683)		$ 16,564	$ 9,650	$(6,914)	

Exhibit 7C-7

Royco, Inc.
Statement of Cash Flow
for the Seven Months Ended July 31

	Month			Comments	Year to Date			Comments
	Projected	Actual	Difference Over (Under)		Projected	Actual	Difference Over (Under)	
Cash Receipts								
Receivables	$ 76,370	$ 77,840	$1,470	Increased sales through June.	$388,940	$397,380	$8,440	Increased sales through June. July decrease will be reflected in decreased collections in August and September.
Mortgage loan	—	—	—		120,000	120,000	—	
Bank loans	—	—	—		133,000	133,000	—	
	76,370	77,840	1,470		641,940	650,380	8,440	
Cash disbursements								
Raw material purchases	46,950	48,360	1,410	Increased purchases through June.	414,925	428,975	13,870	Increased purchases through June.
Direct labor	1,100	900	(200)		19,600	19,900	300	Refer to cost of sales.
Factory overhead								
Insurance	4,800	5,400	600		4,800	5,400	600	Refer to cost of sales.
Property taxes	7,600	8,000	400		7,600	8,000	400	Refer to cost of sales.
Other, excluding depreciation	3,200	3,200	—		22,300	22,190	(110)	
Selling expenses								
Salaries and commissions	1,800	1,600	(200)		8,200	8,190	(10)	
Other, excluding depreciation	1,400	1,400	—		4,150	4,275	125	
Administrative expenses								
Professional fees	—	—	—		1,500	1,500	—	
Business taxes and licenses	—	—	—		1,800	1,800	—	
Salaries	900	900	—		6,300	6,300	—	
Interest	1,620	1,635	15		8,410	8,460	50	
Other	350	350	—		1,950	2,150	200	
Income taxes	1,200	1,200	—		8,400	8,400	—	
Plant addition	—	—	—		120,000	120,000	—	
Long-term repayment	—	—	—		—	—	—	
Bank repayment	6,000	4,000	(2,000)	Increased purchases.	12,000	5,000	(7,000)	Increased purchases.
	76,920	76,945	25		641,935	650,360	8,425	
Cash over (short)	(550)	895	1,445		5	20	15	
Cash balance—beginning	555	(875)	(1,430)		—	—	—	
Cash balance—end	5	20	15		5	20	15	
Bank loan—beginning	127,000	132,000	5,000		—	—	—	
Loans (repayments)	(6,000)	(4,000)	2,000		121,000	128,000	7,000	
Bank loan—end	$121,000	$128,000	$ 7,000		$121,000	$128,000	$ 7,000	

Exhibit 7C-8

Royco, Inc.
Balance Sheet
for the Seven Months Ended July 31

	Projected	*Actual*	*Difference Over (Under)*	*Comments*
Current assets				
Cash	$ 5	$ 20	$ 15	
Accounts receivable	143,160	112,470	(30,690)	July sales down.
Inventories	148,600	165,950	17,350	Purchasing slowdown did not match sales decrease.
Prepaid expenses	6,544	6,956	412	
	298,309	285,396	(12,913)	
Fixed assets				
Cost	278,700	278,700	—	
Accumulated depreciation	51,000	51,000	—	
	227,200	227,200	—	
	$525,509	$512,596	$(12,913)	
Current liabilities				
Bank loans	$121,000	$128,000	$ 7,000	
Accounts payable	62,075	52,105	(9,970)	Purchasing slowdown because of sales decrease.
Accrued liabilities	5,350	6,045	695	
Income taxes	520	(3,204)	(3,724)	Decreased earnings.
	188,945	182,946	(5,999)	
Long-term debt	120,000	120,000	—	
Shareholders' advances	45,000	45,000	—	
Capital stock	5,000	5,000	—	
Retained earnings	166,564	159,650	(6,914)	
	$525,509	$512,596	$(12,913)	

BIBLIOGRAPHY

Clark, John J., Thomas J. Hindelang, and Robert E. Pritchard. *Capital Budgeting: Planning and Control of Capital Expenditures.* Englewood Cliffs, N.J.: Prentice-Hall, 1979.

Jones, Reginald L., and H. George Trentin. *Budgeting: Key to Planning and Control.* rev. ed. New York: AMACOM, 1980.

Ramsey, J. E., and I. L. Ramsey. *Budgeting Basics: How to Survive the Budgeting Process.* New York: Franklin Watts, 1985.

Sweeny, H. W. Allen, and Robert Rachlin. *Handbook of Budgeting.* New York: John Wiley & Sons, 1981.

Welsch, Glenn A. *Budgeting, Profit Planning and Control.* Englewood Cliffs, N.J.: Prentice-Hall, 1979.

Wilkes, F. M. *Capital Budgeting Techniques.* 2d ed. Chichester, England: John Wiley & Sons, 1983.

Wilson, James D. *Budgeting and Profit Planning Manual.* Boston: Warren Gorham & Lamont, 1986.

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8/100 OBTAINING FUNDS FOR A SMALL BUSINESS

8/105 ENGAGEMENT CONSIDERATIONS

.01 Practitioners are often called upon to provide advice and assistance to small business clients who need funds to continue or expand their operations. For many businesses, the timely influx of capital can mean the difference between stagnation and growth, or perhaps even between bankruptcy and survival.

.02 A practitioner may be requested to assist a client in locating sources of funds or in preparing data for lenders or investors. Such assistance may be limited to responding informally to a question for which the practitioner can draw on knowledge of the client's current financial condition, or it may involve an engagement requiring considerable research and effort, including the preparation of documents and discussions with potential lenders or investors. The extent and nature of the practitioner's work will depend on the capabilities of the client and the circumstances.

.03 In an engagement, the client would be involved throughout the project, providing essential data and deciding on courses of action. The completed documents would clearly be the representations of management, not those of the practitioner or the CPA firm.

8/110 SCOPE OF THIS PRACTICE AID

.01 This practice aid provides information for practitioners who will assist clients in obtaining funds from external sources. This document should not be interpreted as setting standards or preferred approaches to providing this kind of assistance. Practitioners may not have to perform many of the activities discussed herein in each case, since they will already have varying degrees of knowledge about the client and about prospective lenders and investors.

.02 This practice aid does not discuss the practitioner's efforts to generate funds through changes in the client's operations or investments. Furthermore, it assumes that the practitioner has considered the internal means of reducing the need for external funding. The practitioner will find guidance on these matters in section 7/100, "Developing a Budget," and in section 9/100, "Cash Management."

8/115 DEFINITIONS

.01 Certain terms used throughout this document are defined below.

.02 **Client.** An organization or individual who currently retains, or wishes to engage, the practitioner.

.03 **Funds.** Financial resources available for immediate or future use in the client's operations.

.04 **Investor.** Any institution, individual, or organization that provides funds in return for participation as an owner. Such funds are not generally subject to repayment, except through sale, redemption, or liquidation.

.05 **Lender.** Any institution, individual, or organization that provides funds that must be repaid.

.06 **Practitioner.** An individual (or firm) in public accounting practice.

8/120 PRELIMINARY ENGAGEMENT ACTIVITIES

.01 The following steps may be performed in a consulting services engagement to assist a client in obtaining funds:

a. Evaluating the client for acceptance.

b. Reaching an engagement understanding.

c. Conducting a preliminary survey.

d. Making initial judgments about the approach to funding.

e. Gathering information.

f. Analyzing information and developing a funding plan.

g. Evaluating and selecting the financing method and funding source.

h. Assisting in preparing the funding proposal.

i. Concluding the engagement.

.02 The extent of effort expended on each step may vary, depending on the circumstances of the engagement, such as prior client contact and the amount of funds sought.

Client Evaluation

.03 In order to determine whether to undertake an engagement, a practitioner may wish to review the circumstances surrounding a prospective client's request. In initial discussions, the practitioner may find it helpful to obtain answers to the following questions:

- Had the prospective client previously engaged another accountant, and if so, why is another one being sought?
- Who referred the prospective client?
- With whom does the client bank?
- What law firm does the client use?
- How long has the client been in business?
- Were there any earlier business ventures, and if so, what were their results?
- What is the nature of the current business?
- What is the financial history of the current business?
- Who are the owners-partners?
- Does the management team have the experience or education needed to make the business a successful one?
- Is the prospective client seeking to establish a continuing relationship with the practitioner or asking for one-time-only assistance?

.04 In deciding whether to accept the new client, the practitioner considers whether accepting the engagement is in keeping with professional standards and with the firm's policies and if the obtaining of funds is probable.

Engagement Understanding

.05 Assuming the practitioner agrees to assist the client in obtaining funds, the next step is for the parties to reach an understanding about the services to be performed and the objectives and scope of the engagement.

.06 Establishing the scope of the engagement is an important step because it can vary. It may include assisting the client in selecting potential sources of funds and in preparing any required information, such as a business plan, projections, a loan package, or government forms. It may be limited to one of those two activities, or it may include additional work, such as the audit, review, or compilation of current financial statements, or a review or compilation of prospective financial statements. The practitioner might also accompany the client to interviews with potential funding sources to answer questions about the financial data. Matters that relate exclusively to a CPA's report on current and prospective financial statements are not treated extensively in this practice aid; however, many engagements of this type may involve such services as well as consulting services.

Preliminary Survey and Initial Judgments

.07 A preliminary survey can narrow the choice of financing methods and funding sources by eliminating inappropriate ones. The practitioner often will use prior knowledge and experience to make some initial judgments about probable financing methods and funding sources during the preliminary survey. These methods and sources are discussed in more detail in section 8/145, "Preparation of the Funding Proposal Package" and in appendix 8/A. The steps outlined in the following pages help determine whether those initial judgments are appropriate or will require revision.

.08 The practitioner's inquiries to the client in the preliminary survey generally concern the following matters:

a. What amount (initial estimate) will be needed?

b. How long will the funds be needed, and if they will be repaid, how would repayment be accomplished?

c. How soon will the funds be needed?

d. Can the client provide potential funding sources with collateral?

e. What is the intended use of the proceeds?

f. Would funding through equity or debt methods be preferable?

g. What repayment program might be desirable and feasible if the debt method is chosen?

.09 At this time, the practitioner considers what funding sources are likely to be available to the client and what the cost of funds would be. Based on this information, the practitioner makes initial judgments concerning an approach to achieving the engagement objectives and develops an appropriate work program. The following sections discuss possible steps in the process of assisting a client to develop and document a funding plan and a funding proposal package.

8/125 GATHERING INFORMATION

.01 When assisting a small business client in obtaining funds, the practitioner gathers information in sufficient detail to—

- Identify potential client weaknesses that may require reconsideration of the practitioner's initial judgments concerning the probable funding approach.
- Identify strengths that the client may emphasize in making presentations to potential sources of funds.
- Corroborate preliminary survey data and confirm the understanding of the engagement.

.02 The information to be gathered falls into the following three major categories:

a. Information concerning the client's plans, goals, objectives, and reasons for seeking funds

b. Data on the business's ownership, finances, history, operations, and personnel

c. Industry data

Client Plans and Reasons for Seeking Funds

.03 The client's plans, goals, objectives, and reasons for seeking funds may affect the practitioner's approach. Such information will be important to a potential lender or investor. For example, the client may be planning to expand the current business, diversify, or acquire another business. In addition, the personal goals and objectives of the owner of the business might influence the choice among alternative approaches to securing funds.

.04 The following are five basic reasons why a small business might need funds:

a. Business start-up (for the client who is not currently in business)

b. Working capital (medium- to long-term need)

c. Seasonal peaks (short-term need)

d. Equipment or facilities acquisition (capital improvement)

e. Expansion (sustained growth)

.05 The client's reasons for seeking funds often suggest the kind of lender or investor that might be most appropriate to solicit. For example, some funding sources specialize in providing venture capital for new businesses. The care the practitioner takes to assist the client in determining and presenting the reasons and plans for seeking funds may influence whether the client's application is acted upon favorably and on acceptable terms. The information provided will enable the lender or investor to focus on the proposed use of the funds and on the ability of the client to repay the loan under various conditions.

Business Ownership, Finances, Operations, and Personnel

.06 The practitioner gathers data on the business's ownership, finances, operations, and personnel primarily through interviews and conferences with client management and personnel and a review of business records. During this phase, the practitioner needs to be alert to recent major changes and nonrecurring transactions that may not be readily apparent and that need to be fully described in the funding proposal. Other sources of information include the client's attorney and banker, predecessor accountants, credit reporting agencies, and the practitioner's files.

Ownership Data

.07 The practitioner ascertains the current ownership of the business in order to supply necessary information to lenders or investors and to determine whether those owners could be sources of additional funds. The practitioner examines any partnership agreements, the stock ledger (to determine current stockholders and the number of shares outstanding), stock option plans, existing buy-sell agreements, and agreements with major nonownership interests (heirs, creditors, principal suppliers, principal customers, and so forth).

Financial Data

.08 Much of the information needed by the practitioner can often be determined from prior financial statements (three to five years), existing debt or equity restrictions or covenants, existing budgets and cash projections, internal management reports, income tax returns, the latest interim financial statements, backlog data (orders, production, and purchase back orders), and financial projections.

.09 Financial forecasts or projections (prospective financial information) help practitioners to evaluate their initial judgments. If the client does not have the prospective financial information available, the practitioner may assist in developing it. These data would be used later as a basis for the prospective financial information that often is part of the funding proposal package.

Operations Data

.10 Certain information about a business's operations helps the practitioner to assist the client in determining immediate financial needs and in preparing material for lenders or investors. Practitioners generally consider the type of products or services that are sold, industry position, unique circumstances, the market for the products or services, the trading cycle, competition, the company's facilities, and inventory turnover. They also consider productivity reports and gross profit ratios for the past three to five years, as well as major changes in overhead expenses, future products and markets, and any expansion plans.

Management and Key Personnel Data

.11 Information on the background, education, experience, and capabilities of client personnel help a potential funding source to evaluate both the ability of the enterprise to meet its obligations and its potential for success and growth. Personnel experience weighs especially heavily in a new venture because of the absence of data about an ongoing business. If the resumes of owners, executives, and other key management personnel are unavailable, the practitioner encourages the client to develop them for submittal to potential funding sources.

Industry Data

.12 Knowledge of pertinent business ratios, including operating ratios and balance sheet ratios, can enable the practitioner to provide the client with insight into certain strengths and weaknesses that may interest potential sources of funds. More details on the use of these ratios, as well as sources of financial ratios and other data for a particular industry, are available in section 10/100, "Financial Ratio Analysis."

.13 According to the U.S. Small Business Administration, the following ten ratios are significant for evaluating small businesses:

- Current assets to current liabilities
- Current liabilities to tangible net worth
- Net sales to tangible net worth
- Net sales to working capital
- Net profits to tangible net worth
- Average collection period of receivables
- Net sales to inventory
- Net fixed assets to tangible net worth
- Total debt to tangible net worth
- Net profit on net sales

8/130 ANALYZING INFORMATION AND DETERMINING FUNDING OBJECTIVES

.01 Once the essential information has been gathered, the development of the final funding plan enters a new phase. The practitioner now analyzes the client's goals and objectives, the need for funds, and the methods and costs involved in obtaining those funds. This analysis enables the practitioner to make recommendations concerning these matters and to assist the client in preparing information for presentation to potential lenders or investors.

Business Planning

.02 An engagement to help a small business obtain funds provides a unique opportunity for the practitioner to introduce a client to the benefits of financial planning. In any engagement, financial planning is tailored to the situation. For the small business client, such planning is usually most effective when related to the owner's tax and financial situation as well as to business considerations.

.03 In addition to detailed financial plans, this type of engagement generally entails preparation of a business plan. A lender or investor will want to know not only the business's finances but also its nature, history, and prospects. The judgments that will be made about the applicant's ability to realize those prospects will depend, in large part, on the business plans and strategies the client expects to implement. The plan would support the specific amount requested by describing strategies that would result in effective implementation.

.04 The business plan provides a foundation for the determination of funding objectives. It would also be included in the portion of the funding package that deals with business goals, management plans, market analyses and strategy, and other factors pertinent to the business and future operations. Since client personnel usually know most about these areas and stand to benefit from the effort, they usually would be primarily responsible for developing these materials, with the practitioner's assistance. The practitioner then studies the business plan and, with the client, resolves any questions about its completeness, feasibility, or compatibility with the detailed financial plans.

Agreement on Funding Objectives

.05 The business plan and data that have been gathered enable the client and the practitioner to determine a tentative course of action. Initially, the client and the practitioner need to agree on the reasons for acquiring the funds, the amount, and the schedule for receiving and repayment.

.06 Another matter to be decided before the engagement proceeds is whether borrowing is preferable to an equity approach. If so, other questions arise:

- Is borrowing feasible?
- How can the client best repay the loan?
- How can the client best cover the costs of borrowing the needed amounts?
- Which potential lenders are best suited to the client?

.07 When funds are available only at high interest rates, the loan may be ill-advised for the client. Consideration of the impact of borrowing on future client operations is important in deciding upon financing methods, sources and amounts of funds, and timing.

.08 However, if an equity approach appears preferable to borrowing, the following questions arise:

- Is the equity approach feasible?
- Is a private source or a public source desirable?
- How much of the company's equity are current owners willing to relinquish?
- What potential sources are available?
- If a public source is preferable, will federal and state regulations concerning securities and practitioner independence be complied with?

.09 Before the practitioner can proceed with the engagement, the client must decide on the amount to be requested, the financing method, the funding source, and the repayment schedule.

Analysis and Development of the Funding Plan

.10 The practitioner analyzes the information and reevaluates the preliminary judgments in light of any new findings. If the initial judgments prove invalid, the practitioner may need to revise the approach and work plan.

.11 The practitioner then develops a funding plan proposal, which identifies the preferred method of financing (equity or debt, and what type) and a preferred source of funding (bank, commercial finance company, private party, insurance company, government agency, and so forth). It also identifies the preferred borrowing repayment schedule for a loan and the approximate maximum loan cost (interest).

8/135 FINANCIAL PROJECTION

.01 Financial projection is the method by which the practitioner can help a client determine its precise funding requirements and the schedule for obtaining and repaying the funds.[1] As part of a funding proposal package, prospective financial information shows lenders how the company expects to grow financially and how it would repay a short-term loan; thus, prospective financial information can help a small business to obtain funds. Such information is also the foundation of long-range projections (two to five years).

[1] The term *financial projection* is used to mean the development of prospective financial data. Such data may be presented as a financial forecast or a financial projection, as defined in various AICPA publications.

.02 In working with a small business client over time, a practitioner may well have developed financial projections on a regular basis. If so, only the results of a current projection will be needed to further the process of assisting the client in obtaining funds. However, the practitioner may find it necessary to help a new client develop initial financial projections.

.03 Financial projections will—

- Identify, in advance, the need to obtain funds from outside sources.
- Indicate the amount required.
- Indicate whether capital expenditures are necessary to support increased sales volume.
- Project the period for which additional funds are needed.
- Facilitate planning for the investment of idle funds.
- Facilitate planning for funds required for operations, profits from operations, taxes, dividends, debt obligations, owner-manager compensation, and other cash requirements.

Projecting Cash Flow

.04 A cash flow projection indicates the client's receipts and disbursements. If the client already has developed an operating budget, much of the needed data may be readily available. If not, the practitioner may have to provide additional assistance in estimating sales and cash receipts and disbursements.

.05 **Estimating Sales.** In order to effectively help a client estimate sales, the practitioner needs to understand the client's business, its industry, general business conditions, and other significant factors that might affect sales. In general, the sales estimating process involves the following tasks:

- Categorizing the client's products into groups of items for which sales generally follow similar patterns
- Relating each group of items to factors affecting sales and determining which factors might call for further investigation
- Interviewing management and appropriate personnel to gather data and to establish the assumptions on which the sales estimate will be based (for example, no scarcity of raw materials, no strike, sufficient productive capacity)

.06 In developing a sales estimate, the practitioner might analyze prior periods, prepare a synthesis of management and personnel estimates or a synthesis of estimates from major distributors and retail sales outlets, or apply statistical methods or mathematical models. Since none of these methods will produce infallible results, the use of more than one may help in evaluating the reasonableness of sales estimates.

.07 **Estimating Cash Receipts and Disbursements.** The first step in estimating cash receipts and disbursements is to develop the projected income statement from estimates of sales, cost of sales, expenses, and other factors affecting net income. Much of the required information for this statement may already be available from the client's financial planning reports and budget; if not, it can be developed with the practitioner's assistance. The sales estimate, showing the potential revenues from sales, is the product of projected sales volume (in units) and assumed sales prices; it is usually the most important piece of information. Cost-of-sales estimates can be based on estimated sales and historical cost-of-sales percentages adjusted for changes in applicable cost components. Expense estimates can usually be based on projected sales volume and prior experience adjusted for inflation.

.08 Once the projected income statement has been developed, estimated cash receipts and disbursements can be determined by adjusting estimated sales, cost of sales, and expenses for uncollected and unpaid items. Cash receipts can be estimated by adjusting estimated sales for anticipated changes in accounts receivable balances (collections related to charge sales). Cash disbursements can be estimated by adding purchases (cost of sales adjusted by changes in inventory levels) and expenses and adjusting the total for anticipated changes in accounts payable balances and accrued expenses. Other income and expense items not generating or requiring cash would be adjusted similarly.

.09 The cash flow projection results from applying these adjustments to the projected statement of income. This statement may resemble a statement of changes in financial position and may reflect changes in either cash or working capital.

Long-Range Cash Flow Projection

.10 Short-term financial projections usually involve a normal one-year business cycle; however, if expansion or diversification is a client's objective, funding requirements go beyond the one-year period. If long-term funding is sought, the cash flow projection covers the funding period and usually contains less detail than one prepared for short-term purposes.

8/140 EVALUATING FINANCING METHODS AND FUNDING SOURCES

.01 In an engagement to assist a small business client in obtaining funds, the practitioner's major task generally involves helping to prepare data for presentation to the potential funding source. Equally important tasks, however, are assisting the client in selecting an appropriate financing method and funding source and in initiating the client's decision. The client may request such assistance when the simplest method and source (a loan from the client's bank) is either unavailable or inappropriate. This section discusses alternative financing methods and funding sources.

.02 Financing methods and funding sources are sometimes difficult to separate. For example, in partnership formation the new partner is the only source of funds. On the other hand, a loan may involve numerous sources (banks, government agencies, friends, relatives, pension funds, and so forth) and numerous varieties (secured loans, long-term loans, noncollateralized loans, and so forth). Major methods of financing and sources of funding are described in the following pages.

Methods of Financing Through Equity Exchange

.03 **Proprietorship.** The simplest method of financing is an exchange of personal equity for proprietorship capital. The practitioner assisting in the obtaining of funds for a proprietorship evaluates the proprietor's personal equity to determine how much of it can be pledged or exchanged for funds (through, for example, a second mortgage on real estate or personal loans).

.05 **Partnership Formation.** A basic method for bringing equity into a business is partnership formation. The new partner purchases equity, which provides capital to the business organization. Tax results vary, depending on whether the partnership gains new equity or a new partner buys equity from the old partner. Elections must be made, and different tax results can arise if the new partner contributes assets other than funds (for example, appreciated assets) to the partnership in return for an ownership interest.

.06 A limited partnership may be necessary in certain tax situations involving passive income. The prospective investors may want the tax benefits of losses or investment credit pass-throughs in order to reduce their personal income taxes, but they may be unwilling to expose themselves to the obligations of general partners. Without these personal tax benefits, it may be impossible, impractical, or simply too costly to raise money. However, the organization needs to comply with legal and tax provisions so that the entity is recognized as a partnership and not an association taxable as a corporation. A partnership (or a joint venture) may be preferable to a corporation when the organization's or project's economic life is expected to be short (three full years or less); the partnership form avoids the problems of the collapsible corporation.[2]

.07 **Tax Option Corporations.** An intermediate form between a partnership and a corporation is the subchapter S corporation, a corporation that elects to have its income taxed to its stockholders. If the entity is eligible for this status, it enjoys many of the tax benefits of a partnership and many of the legal advantages and liability safeguards of a corporation.

[2] A corporation is considered collapsible when it is formed for a purpose and subsequently liquidated. If a corporation is held to be collapsible, any gain on liquidation is held to be ordinary income, not capital gains.

.08 Since a high proportion of passive income (rents, dividends, and interest) may disqualify a subchapter S election, the election would generally be most useful as a vehicle for funding manufacturing, retailing, and other operating companies. The investor may benefit from pass-through of investment tax credits and any operating losses (to the extent of tax basis) that may be expected in the initial years of the corporation, as well as any from advantages in choosing a short fiscal year. Furthermore, with proper planning, the subchapter S election may be terminated to prevent income from being taxed directly to the individual investor in future profitable years.

.09 Subchapter S corporations are subject to special federal tax provisions that must be followed to avoid unintended results. A thorough discussion of these provisions is beyond the scope of this practice aid, but they need to be fully understood by the practitioner and client. Since not all states recognize subchapter S status under corporate income tax provisions, the practitioner needs to be aware of any local provisions that may reduce or offset the potential benefits under the federal provisions.

.10 **Corporate Organization.** Many businesses are organized as corporations rather than as partnerships or proprietorships because a major benefit of the corporate form is the protection of stockholders from liability beyond their investment and from losses sustained by the corporation. A corporation is a separate legal entity. The rights, legal liabilities, and responsibilities of stockholders are more easily understood than the rights, legal liabilities, and responsibilities of general and limited partners.

.11 Corporations normally have perpetual life, and ownership interests are easily transferable. (Of course, agreements may be drawn to restrict sale or disposition to outsiders without first offering the stock to parties named in the agreement.) A limited partner normally has no right to a voice in management and may have difficulty removing incompetent or dishonest general partners. In a corporation, however, a majority of the votes of the shares issued usually exercises control.

.12 Before making any recommendations for raising funds through equity exchange, the practitioner needs to be aware of any applicable federal and state securities regulations, including blue sky rules and restrictions regarding the number of investors. Knowledge of the rules covering issuance of small business stock under section 1244 of the Internal Revenue Code and the related potential tax advantages is also desirable.

.13 Employee stock ownership plans (ESOPs) are designed to permit employees to purchase all or part of the stock of their employer corporation. Such plans can be useful in raising necessary funds under certain circumstances. However, the practitioner needs to know the related income tax provisions before recommending an ESOP.

Methods of Financing Through Debt

.14 Once a small business has met its original capital needs, loans become the most common method of securing further funds. The common varieties are secured loans, unsecured loans, lines of credit, and bonds.

.15 Secured loans are those for which the borrower pledges collateral. This gives the lender two methods of securing loan repayment: the cash flow of the borrower and the liquidation value of the collateral. The collateral for a secured loan might be stocks or other securities, real estate, machinery and equipment, inventories, accounts receivables, cash value of life insurance, personal property, or guarantees.[3] A lender can also secure repayment through a lien, which is a claim against the pledged property.

.16 Unsecured loans are those for which assets have not been pledged.

.17 Lines of credit are agreements by commercial banks to lend a specified maximum amount during a given period. Usually, no collateral is required for a line of credit, which is, in effect, a promise to make a loan. If the bank guarantees payment to a third party, it issues a letter of credit.

.18 Bonds and debentures are securities that formally evidence a debt of a specific amount, for a specific period of time, at a set rate of interest. Bonds and debentures are similar to promissory notes, but they are normally negotiable and are issued in standard denominations. Although bonds and debentures are similar, they differ in that debentures are normally not secured by specific property, and they may be subordinated to the claims of other creditors.

Sources of Funding

.19 Small business funding sources may be grouped into three major categories: private sources, lending institutions, and government or government-sponsored agencies.

.20 **Private Sources of Funds.** Just about any individual or organization may be a potential lender. Some of the common private sources are relatives, friends, employees, stockholders, suppliers, and customers.

.21 These private sources generally base their willingness to provide funds on trust that the loan will be repaid, the profit motive, or a desire to keep a mutually advantageous business or socially appropriate relationship from changing.

.22 Private sources may produce needed funds in circumstances in which other lenders would not. However, the relationships with private lenders can often involve difficulties in addition to those usually associated with lending institutions because personal concerns or nonbusiness considerations often play a role in the lending and repayment processes. The personal relationships involved in securing loans from private sources may be one reason why a small business would not overlook this source for funds, but they may also be a reason for turning to such sources only when it is clear that the funds will be unavailable through any other means at the time they are needed or at a cost that is manageable.

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[3] Often, collateral financing of property, plant, and equipment acquisitions takes the legal form of leases. Existing property, plant, and equipment may be used to secure funds through a sale-leaseback transaction. Such arrangements are substantially the same as secured loans.

.23 **Lending Institutions.** Lending institutions are in business to lend money. They include banks (commercial, savings, savings and loan, industrial), finance companies, factoring companies, commercial paper houses, insurance companies, investment bankers, investment companies, leasing companies, pension funds, real estate investment trusts (REITs), mortgage companies, trust companies, venture capital companies, and foundations. Each lending institution will differ in the degree of risk it is willing to take and the rate of return it is willing to accept for a projected degree of risk.

.24 **Government or Government-Sponsored Agencies.** Federal, state, and city governments sometimes serve as lenders through various agencies or organizations developed to provide assistance to specific groups, such as small businesses and minority-owned businesses. Some of the organizations are—

- The U.S. Small Business Administration (SBA)
- Small business investment companies (SBICs)
- Industrial development agencies and industrial revenue agencies
- State and local development organizations
- Minority enterprise small business investment companies (MESBICs)

.25 In addition, various federal and state agencies or organizations that deal with housing, agriculture, exports-imports, commerce, and so forth, have lending programs. Government lending programs often have extensive requirements regarding qualification and repayment.

.26 An important source of capital for small businesses is the U.S. Small Business Administration, which provides both direct and indirect funds. Direct funds can be loaned directly to a client; the loans are made at lower-than-normal interest rates and are highly desirable if they are available. Frequently, direct loans have been available only to members of minority groups, including women.

.27 The SBA also administers a guarantee program, under which funds are widely available. Instead of issuing funds directly, the SBA guarantees a lender against loss. Lenders are usually banks, but recently other institutions (finance companies and even stockbrokers) have entered the business. Certain banks are participating banks and may even have authority to approve SBA guaranteed loans without first having to submit all the forms to the SBA and waiting for approval. An SBA guaranteed loan can be obtained from one of these participating banks in as short a time as two weeks, although a month is a more typical waiting period. A list of these participating banks can be obtained from any local SBA office.

.28 The maximum guarantee for an SBA loan is 90 percent of the loan proceeds. The SBA usually requires personal guarantees to it as well as to the participating bank.

.29 The lender loans the money to the small business at an interest rate related to the prime rate. Dollar and time limits for such loans are established periodically. The borrower must complete a set of prescribed forms. These forms are no more complicated than the average corporate tax return and should not prove onerous to the practitioner. The SBA approves the rate at which the CPA will be paid for completing the forms and participating in loan negotiations; consequently, the CPA should exclude time that is not related to completion of the forms—time used for the preparation of financial statements and budgets—and should accurately document the time spent.

.30 Small business investment companies are allowed ordinary income tax deductions on losses from investments in small business firms. Small business investment companies typically lend to other small businesses by buying their convertible debentures. Once this was a very popular method of raising money, but it has fallen into disuse because fewer funds are available through SBICs and the guaranteed loan program of the SBA has been expanded. A list of the SBICs in an area can be obtained from the SBA.

.31 At present, one of the most popular methods of raising money for a facility or equipment is through industrial revenue bonds issued by the economic development authority of a state or locality. States and localities may issue tax-free bonds in order to gain or maintain jobs. The borrower arranges for a lender (frequently a bank but perhaps a private lender) to take the mortgage or the lien on the equipment or building to be acquired. The state or other municipality then sells the tax-exempt bonds to this lender. The funds are to be used only for acquiring the building or equipment.

.32 Such bonds are revenue bonds; as such, their repayment is not the responsibility of the state or local government. Only the underlying assets and rentals charged for their use will be used to retire the bonds.

.33 A lender may be interested in such an arrangement, since interest paid by a state or local government is exempt from federal taxes. The advantage to the borrower is that the interest rate is usually 65 percent to 75 percent of the prime rate rather than one to three points over. The state and local governments use this program to gain additional employment and tax base or to maintain jobs that might be lost if the plant were to move or close.

.34 Other government lending programs are available to small businesses seeking funds. One such program, administered through the Department of Commerce, serves companies that have been unfairly hurt by international competitors. Another program, administered through the Farmers Home Administration, makes direct funds and guaranteed loans available to businesses located in designated rural areas. Practitioners may find it useful to contact an economic development authority in their area to request information about other government programs that might be available to clients.

.35 Minority enterprise small business investment companies are designed primarily to permit an equity form of investment in small, minority businesses. MESBICs are generally restricted to owning less than 50 percent of the outstanding stock of the corporation. As the business begins to grow and prosper, MESBICs may sell their stock back to the corporation over a specified period of time while continuing to have a voice in the operations of the corporation.

.36 MESBICs are created through a combination of federal and private funds, and they can make investments up to a limited amount, based upon their resources. They may also make loans outright, depending on the amount and the nature of the enterprise's ownership.

Factors Affecting the Selection of a Financing Method

.37 A major decision the client must make is whether to include the exchange of equity for funds in the inventory of possible financing approaches. Unlike the incurring of debt, exchange of equity reduces the current owner's control over the company (unless the transaction involves existing owners). Exchanging equity for funds generally increases the number of owners who share in the equity value of the entity and who might wish to have a voice in management. However, the equity method of financing normally does not entail repayment. Creditors generally have no direct control over management decisions, but debt must be repaid, and creditors can seize assets if debt is not repaid on time. The choice between equity and debt financing may involve emotional and legal factors as well as logical business considerations.

.38 The following considerations may also influence the method of financing:

- The amount of funding required
- The intended use of the funds
- The scheduled repayment period
- Restrictions related to existing financing arrangements
- The cost of the funds
- The effect of an equity exchange
- The state of the economy
- Seasonal fluctuations that affect the business
- Competition
- Industry customs and regulations
- Growth stage of the client
- Personal considerations of the client

Establishing Method and Source Preferences

.39 The practitioner and client may consider many alternative financing methods and sources of funding, but generally it is not too difficult to eliminate several as clearly inappropriate. Once such choices are eliminated, it simply becomes a matter of selecting the most appropriate sequence for pursuing funds from among the remaining potential sources and methods.

.40 One approach to establishing this sequence of pursuit is to list the appropriate combinations of sources and methods. The practitioner and client can then rank the combinations according to the likelihood that the desired funds would be provided (in descending order by probability) and according to the relative advantage of the source and method to the client (from the most advantageous to the least advantageous). A comparison of these two rankings establishes a priority sequence for further investigation or application. In some cases, several sources and methods may be approached simultaneously.

.41 Table 8.1 will help practitioners to match potential sources and methods of funding with specific client requirements. It presents five major uses of funds and provides for each a breakdown of financing methods and funding sources with types of loans (financing vehicles).

.42 Appendix 8/A, "External Sources of Funds," provides additional details about the common funding sources and financing methods that the practitioner is likely to encounter and provides information that the practitioner may find useful when helping to determine which sources and methods would be appropriate.

8/145 PREPARATION OF THE FUNDING PROPOSAL PACKAGE

.01 When a client has approved a proposed funding plan, the practitioner assists in the formal preparation of a funding proposal package for submission to the selected funding source. In this phase of the engagement, the practitioner uses all the information gathered and all decisions made to assist in preparing a proposal package that accurately and effectively presents the client's case. This section discusses some of the tasks the practitioner may perform while assisting the client in the preparation of the funding proposal package.

Identifying Information for Inclusion

.02 The evaluation of credit risks can never be reduced to an exact formula, nor can the lender predetermine precisely the maximum amount that the applicant can repay. The funding proposal package provides the potential lender or investor with information that is helpful in making a decision. The following material is usually of primary interest to a prospective lender or investor:

- Data concerning budgets and cash projections of past periods, if available, can be helpful. Comparisons of actual results with budgets, especially if variations were insignificant or favorable, may strengthen confidence in current budgets and projections.

Table 8.1
Small Business Financing Guide

Use of Funds	*Type of Money*	*Source*	*Financing Vehicle*
Business Start-Up	Equity	Nonprofessional investor	Partnership formation Stock issue
		Venture capitalist SBIC-MESBIC	Stock issue Convertible debentures Debt with warrants
	Long-term debt	Bank	Term loan (limited) Unsecured term loan Equipment loan Equipment leasing Real estate loan
		SBIC-MESBIC	Term loan (limited) Unsecured term loan Equipment loan Equipment leasing
		Commercial finance company	Equipment loan Equipment leasing Real estate loan
		Life insurance company	Policy loan Real estate loan
		Savings and loan association	Real estate loan
		Leasing company	Equipment leasing
		Consumer finance company	Personal property term loan
		Small Business Administration Economic Development Administration	Term loan guarantee loan Direct term loan (limited)
		Local development company	Facilities/equipment financing
		Farmers Home Administration	Term loan guarantee

(continued)

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Table 8.1
Small Business Financing Guide (*continued*)

Use of Funds	*Type of Money*	*Source*	*Financing Vehicle*
Working Capital	Long-term debt	Bank	Unsecured term loan Equipment loan Real estate loan
		Commercial finance company	Equipment loan Real estate loan
		Life insurance company	Policy loan Real estate loan Unsecured term loan (limited)
		Savings and loan association	Real estate loan
		Consumer finance company	Personal property loan
		Small Business Administration Economic Development Administration SBIC-MESBIC	Term loan guarantee Direct term loan (limited)
		Farmers Home Administration	Term loan guarantee
Seasonal Peak	Short-term debt and	Supplier	Trade credit
	Line of credit	Bank	Commercial loan Accounts receivable financing Inventory financing Flooring Indirect collection financing Unsecured line of credit
		Commercial finance company	Accounts receivable financing Inventory financing Factoring
		Factor	Factoring
		Life insurance company	Policy loan
		Consumer finance company	Personal property loan
		Small Business Administration	Line of credit guarantee (limited)

Use of Funds	*Type of Money*	*Source*	*Financing Vehicle*
Equipment or Facilities Acquisition	Long-term debt	SBIC-MESBIC	Term loan
		Bank Commercial finance company	Equipment loan Equipment leasing Real estate loan
		Life insurance company	Policy loan Unsecured loan (limited) Real estate loan
		Savings and loan association	Real estate loan
		Consumer finance company	Personal property term loan
		Leasing company	Equipment leasing
		Small Business Administration Economic Development Administration	Term loan guarantee Direct term loan (limited)
		Local development company	Facilities/equipment financing
		Farmers Home Administration	Term loan guarantee
Sharp, Sustained Growth	Equity	Nonprofessional investor	Partnership formation Stock issue
		Venture capitalist SBIC-MESBIC	Stock issue Convertible debentures Debt with warrants
	Long-term debt	SBIC-MESBIC	Term loan
		Bank	Unsecured term loan Equipment loan Equipment leasing Real estate loan
		Commercial finance company	Equipment leasing Real estate loan

(*continued*)

Table 8.1
Small Business Financing Guide (*continued*)

Use of Funds	*Type of Money*	*Source*	*Financing Vehicle*
		Life insurance company	Unsecured term loan Policy loan Real estate loan
		Savings and loan association	Real estate loan
		Consumer finance company	Personal property loan
		Leasing company	Equipment leasing
		Small Business Administration Economic Development Administration	Term loan guarantee Direct term loan (limited)
		Local development company	Facilities/equipment financing
		Farmers Home Administration	Term loan guarantee
	Line of credit	Supplier	Trade credit
		Bank	Unsecured line of credit Accounts receivable financing Inventory financing Flooring Indirect collection financing
		Commercial finance company	Accounts receivable financing Inventory financing Factoring
		Factor	Factoring
		Small Business Administration	Line of credit guarantee (limited)

- A schedule of the provisions for repayment, unless they are clearly indicated in the cash flow projections or other schedules.

- Past earnings history and other historical financial data with explanations of any losses and unusual revenues in past years.

- Facts about the management and officers (ages, background, experience, attitudes, and so on).

.03 Financial information may be more helpful to a lender or investor if it includes more than basic financial statements. For example, a lender will often want the following information:

- The aging of receivables, with details regarding any concentration in a few customers, and the details of notes receivable and the risks of collection

- Inventories with details on classification, price stability, aging, and turnover

- Investments, fixed assets, other assets, and detailed or supplementary schedules, giving market or appraisal value when appropriate

- Liabilities and reserves, with explanations

.04 In addition, bankers may request detailed information about the collateral to be offered and may require personal financial information in connection with loan guarantee agreements.

.05 Only a few specific items have been mentioned, but they illustrate an important principle: The client should provide the lender with as much useful information as possible. Information about unfavorable items should be accompanied by details of management's plans to resolve the problem. Full disclosure will almost always help the client's case, but subsequent discovery by the prospective funding source of an undisclosed negative factor could be disastrous. The practitioner can provide valuable guidance concerning data that should be included in the funding proposal package.

Preparing the Package for Submission

.06 In addition to identifying items for inclusion, the practitioner may assist the client in preparing some of the data or documents to be included, as well as in assembling the package itself. Small businesses, particularly start-up businesses, may not have the staff or facilities to put together an appropriate package for submission to a prospective lender or investor.

.07 Whether an equity or debt method is selected, a key part of the funding proposal package will be current and past financial statements and prospective financial data. The specific information and degree of detail to be incorporated in the funding proposal package depends on the client's circumstances and on investors' or lenders' requirements. When in doubt, the practitioner inquires of the potential source to limit unnecessary work and client expense.

.08 A practitioner who performs an audit, review, or compilation of a client's current financial data or is associated with prospective financial data is required to adhere to appropriate standards and guidance for those services promulgated by the AICPA. Nothing in this practice aid is intended to change or is in conflict with such requirements. The matters discussed in this practice aid refer to the other services a practitioner provides when such financial data is to be used for the purpose of applying for funding from lenders or investors.

.09 As part of the engagement, the practitioner need not always assist the client in preparing current or prospective financial data for inclusion in the funding proposal package. However, when such assistance is necessary, the prudent practitioner will prepare an appropriate letter of transmittal that includes the information and states management's role in its preparation, in accordance with professional standards.

.10 Materials dealing with an engagement to assist a small business client in obtaining funds appear in appendix 8/B. Included are examples (not models) of a proposal letter, a business plan, a business description, projected financial data, personnel data, and other documents frequently included in a funding proposal package.

8/150 CONCLUDING THE ENGAGEMENT

.01 An MCS engagement is performed with an objective that is understood by both the practitioner and the client. Generally, when the objective is assistance in obtaining funds, the engagement is concluded when the client submits the funding proposal package to the preferred source of funding, although the practitioner would usually be available to accompany the client to an interview should that be desirable. In such engagements, the practitioner provides a service needed by small business clients who are generally unfamiliar with lenders' or investors' requirements and attitudes and with the regulations that may affect their request for funds.

.02 In some cases, the practitioner's continued involvement may be requested, particularly if the client does not receive the needed funds from the preferred source of funding. The practitioner may—

- Suggest revisions to a rejected funding proposal that might make it acceptable (revising the amount requested, modifying the business plan and so forth).
- Assist the client to identify another source of funding.
- Review and comment on loan documents to determine whether conditions listed are achievable and whether they are the ones to which the parties previously agreed.

.03 At the conclusion of the engagement, it might be useful for the practitioner to summarize in a written report to the client, the work done and the results. If a written report is not prepared, the key information may be summarized in a memo for possible future reference.

APPENDIX 8/A

EXTERNAL SOURCES OF FUNDS

The CPA who wishes to provide the small business with meaningful assistance in its request for funds needs to have a working knowledge of the various institutions and organizations that exist to fill that need. Included in this appendix are discussions of commercial banks, commercial finance companies, equipment financing, and other sources of funds.

However, one should not infer that financing roles are as clearly segregated as this appendix may suggest, with one institution concerned with only one type of financing and another institution with a different type of financing. Just as commercial banks compete with each other for business, they compete with finance companies for some types of business. Similarly, considerable overlap can exist when joint financing is arranged through two or more financial institutions, and perhaps with the government also.

The Commercial Bank

The commercial bank is the business person's most frequently used source of temporary funds. For a small business to qualify for bank financing, the owners must have sufficient equity and strong personal credit, since a bank's chief consideration in its lending policy is the safety of the funds entrusted to it by its depositors. The second consideration is the return that it will earn on the money it lends to borrowers.

Types of Bank Loans. The concept of the full-service bank—one ready to perform a wide range of banking and lending services—has greatly expanded the types of loans that are available. These include factoring, accounts receivable, and inventory financing (discussed under "Commercial Finance Companies"), and equipment loans (discussed under "Equipment Financing"). The more conventional types of commercial bank loans are described briefly in the following paragraphs.

Lines of credit. When a bank extends a line of credit, it states that it is prepared to lend up to a certain amount of money as long as certain terms and conditions are met. The bank may cancel the line of credit at any time, but banks rarely cancel a line of credit without cause. The borrower may draw funds as needed; as a result, interest is generally charged only on the funds actually owed to the bank, although occasionally the borrower is required to pay a commitment fee on the entire line of credit to ensure that the bank will make the loan when requested.

Straight commercial loans. Straight commercial loans are short-term loans made for a period of from thirty to ninety days. They are self-liquidating loans used for seasonal financing and the buildup of inventories.

Installment loans. Installment loans may be made for any productive business purpose. Payments are usually made monthly, and, as the obligation is reduced, it is possible to obtain refinancing at more advantageous rates. These loans may be tailored to a business's seasonal financing requirements.

Character loans. Character loans are short-term, unsecured loans made to individuals or companies of high credit standing who need the funds for general purposes.

Collateral loans. Collateral loans are made to individuals or companies who give security in the form of chattel mortgages, stocks and bonds, real estate mortgages, or life insurance.

Bank credit cards. Although not thought of as such, the bank credit card is a form of credit. The bank assumes the financing of the retailer's accounts receivable. For the retailer, a major advantage of the card is the ease with which purchases (and hence sales) can be made. A second important advantage is the elimination of concern about enforcing credit policies for such purchases and the consequent reduction in the dollar investment in accounts receivable. Of course, these benefits must be weighed against the costs involved (the discount charged to the retailer by the bank).

Term loans. A term loan is a business loan with a maturity of not less than one year and, usually, no more than ten years. Term loans are used in situations in which short-term loans and financing do not adequately meet the borrower's needs. Term loans may be used to purchase new equipment, to purchase an existing business, to establish a new business, to provide additional working capital, to retire a bond issue or outstanding preferred stock, or for other reasons.

Bank Lending Policies. Bank loan officers study the borrower and its financial statements before granting loans. Bankers often require audited or reviewed statements from their borrowers as assurance of the reasonableness of the information contained in the statements. In studying the financial statements, bankers look at the key profitability and credit ratios, inventory turnover, and receivable liquidity. In addition, they are concerned with the amount of the owner's capital committed to the business and the rate of withdrawal of capital in the form of dividends and salary.

The banker also studies the Cs of credit—character, capital, capacity, collateral, circumstances, and coverage. As for character, the banker wants to be certain that the borrower will do everything possible to conserve business assets and provide assurance that the indebtedness will be repaid. The borrower must also have a sufficient amount of capital invested in the business and should not expect others to carry the financial burden for an extended period.

Concerning capacity, the borrower should have some managerial skill to use the funds wisely and profitably. In addition, the borrower should have either a credit standing high enough to be able to borrow on an unsecured basis or tangible assets that can be pledged to reinforce a weaker credit position. The banker considers factors such as the seasonal character of the business, long-run business changes, the level of community business activity, the competitive position of the firm, and the nature of the product. Finally, the small business should be covered against losses from causes such as the death of an owner, partner, or principal stockholder; stoppage of operations due to fire, flood, or explosion; theft and embezzlement, and liability suits.

The banker looks for trouble signs in studying the borrower and the financial statements. Here are several warning signs that might indicate problems:

- There are heavy inventories relative to sales.

- High dividends are paid, or salary withdrawals are excessive.

- There are substantial loans to officers.

- A high percentage of receivables is past due.
- Debt is high relative to capital plus retained earnings.
- Investments in property, plant, and equipment are too high.
- The company has an overextended credit position.
- The company's structure is unstable.

Bank Lending Conditions. Banks usually want the principals of the private or small company to endorse the note personally, and the borrower may be required to maintain a compensating balance with the bank. If the company's position is so weak that it cannot provide assurance that the loan will be repaid, the bank may require the company to ask someone to guarantee the loan.

The rate of interest may vary with the size and term of the loan and the risk involved.

Since term loans are of longer duration, bank lending policies concerning them are more formal. Generally, a loan agreement is negotiated between lender and borrower, stipulating the terms under which the loan is made. Along with the usual requirements of a loan agreement, it may impose specific limitations on the borrower. It may require that the borrower do one or more of the following:

- Maintain working capital at a specified minimum amount.
- Furnish audited (or reviewed) financial statements at periodic intervals.
- Provide assurance that there is no default of loan provisions.
- During the term of the loan, refrain from certain acts, such as
  - Paying dividends or redeeming capital stock.
  - Entering into a merger or consolidation or selling substantially all of the firm's assets.
  - Creating or assuming any obligation for money borrowed by the firm, except as provided by agreement.
  - Guaranteeing, endorsing, or becoming surety for or on the obligation of others.
  - Making capital expenditures in excess of a specified amount.
  - Selling receivables with or without recourse.
  - Making loans or advances to others in excess of a specified amount at any one time.
  - Purchasing securities other than those of the U.S. government.

Term-money lenders usually ask borrowers to pledge collateral security, such as equipment or other property, in order to back up the loan. However, it is the ability of the borrower to repay the loan that is of prime importance. The lender looks at some key ratio, such as the current ratio and the net-worth-to-debt ratio, and is keenly interested in cash forecasts to measure the ability of the company to free cash.

The term-loan agreement is based on the ability of the borrower to repay the loan out of earnings, generally in installments, by maturity of the loan. The borrower's compliance with the terms of the loan provides assurance that no payments other than regular installments will be required before the due date of the loan. The borrower has no registration expense—just the costs of securing the loan.

A loan agreement can be revised or modified more readily than a bond indenture or a preferred stock arrangement.

In a term loan, the lender and borrower have a relationship over a relatively long period, and the lender can advise the small firm on financial matters.

Limitations on Commercial Bank Financing. With the rapid expansion of commercial banks into fields other than short-term, unsecured loans, one might wonder why the bank should not be the source of all required funds. Although banks are expanding into many fields, funds loaned out by banks are provided by depositors and, consequently, are subject to very careful management and regulation. Therefore, a bank reviewing a loan application must consider the degree of risk involved and the ability of the borrower to repay. These considerations generally exclude loans to newly started businesses, high risk or venture businesses, and poorly managed businesses (as evidenced by their performance records).

Interest Rates. The prime interest rate, which is the rate charged by large banks to their most creditworthy corporate borrowers, is the base from which interest rates vary. A small business will pay more—perhaps one to two points more. Rates, of course, fluctuate, depending on many circumstances (the supply of money, the state of the economy, government policy, and so on); as these rates vary, the interest rates paid by the borrower also fluctuate.

The Commercial Finance Company

Commercial finance companies (sometimes referred to as asset-based or secured lenders) usually are asked to provide financial assistance when commercial banks are reluctant to extend credit.

Accounts Receivable Financing. Accounts receivable financing is an important service offered by commercial finance companies. Under this method of financing, the borrower assigns its accounts receivable to the lender to serve as security for the cash advances. When the borrower collects the accounts receivable, the proceeds are given to the lender, who reduces the borrower's indebtedness; any excess is returned to the borrower.

The borrower is responsible for the collection of its accounts receivable. The accounts may be financed either on a notification basis or on a nonnotification basis. When the notification basis is used, the customer is informed of the assignment and is asked to remit directly to the finance company. Under the nonnotification method, payment is made directly to the borrower by the customer. When forwarding remittances to the lender, the borrower will usually prepare an accompanying remittance list. The nonnotification method is more prevalent because it minimizes the risk of jeopardizing the relationship between the borrower and its customers.

A businessperson may enter into an agreement with a commercial finance company or another financial institution to accomplish several objectives. Needed working capital can be borrowed without diluting ownership or control of the business. The capital can be be borrowed without entering into a long-term financing arrangement, which may be unnecessary. The borrower is immediately able to obtain working capital by releasing funds partially frozen in accounts receivable, and working capital turnover is accelerated by the immediate conversion of accounts receivable to cash. The borrower is able to secure a continuous source of operating cash on a flexible basis because advances are made only when cash is needed. Having the capital to pay its bills more quickly, the borrower may improve its credit standing, save cash by taking advantage of cash discounts, or take advantage of opportunities for profit.

Before an agreement is negotiated, the lender thoroughly investigates the borrower to determine whether to assume the risk of financing the accounts receivable. The investigation includes examination of the accounts receivable to assess their acceptability for financing.

A contract is then drawn up between the borrower and the lender, since the two parties anticipate a continuing relationship rather than a single borrowing. The terms of the contract detail certain rules and procedures. The lender is to advance a certain percentage of the accounts that are assigned; the most common amount advanced is 80 percent of the assigned accounts that are not past due, as defined in the agreement. The borrower is to prepare a schedule of all assigned accounts.

Any accounts overpaid to the lender will be (*a*) applied on account and adjusted in the next advance, (*b*) transmitted immediately to the borrower by check, (*c*) accumulated and sent to the borrower periodically, or (*d*) applied to reduce the account.

Interest may be charged until the average clearance date of the remittances that are turned over to the lender—for example, a four-day clearance period may be established. Rates charged by commercial finance companies on assigned accounts receivable vary widely (as do rates charged by those commercial banks that engage in accounts receivable financing). The finance company's charge is generally computed as a specific rate per day on the amount of funds advanced, plus in some cases a service fee to compensate for the cost of maintaining the account. Graduated rates may be applied as the account grows larger.

Factoring. In a factoring arrangement, the client actually sells its accounts receivable to the factor. If any of the receivables are uncollectible, the factor suffers the loss and has no recourse to the client. Since this is an outright sale of receivables, the client does not incur any debt. This differs markedly from accounts receivable financing, in which the client merely assigns the receivables to a commercial finance company as collateral for a loan; the client remains responsible for any uncollectible accounts, so that the assignment is termed *with full recourse.*

Since the account debtor pays the factor directly, most factors require that the invoice bear a notification legend, such as, "This account has been assigned to and is payable only to the ABC Factors."

Nonnotification factoring, however, is available to businesses that sell directly to customers in the retail trade. In this type of factoring, the factor purchases the receivables outright without recourse but does not assume the collection function without specific request. The client makes the collections, and the customer is not notified of the factoring arrangements. The fee for nonnotification factoring may be less than that charged for notification factoring.

Factoring costs consist of two elements: an interest charge based on funds advanced prior to the maturity date of the invoices and a commission designed to cover the credit and collection services and protection against losses.

Inventory Loans. When a business has exhausted its ability to borrow on receivables, commercial finance companies may advance funds on inventory under appropriate conditions at a lower percentage of value than on receivables. Three methods exist for financing inventory. The first method, the floating lien, was made possible under the Uniform Commercial Code (UCC); it helped solve the problem of creating a security interest for the lender on a shifting stock of inventory in a debtor's possession. In addition, the UCC made possible the creation of a security interest on property that does not exist at the time but that may come into existence or be acquired subsequently by the person creating the lien. Under this method, an inventory security agreement is negotiated by the commercial finance company (or commercial bank) and the borrower, spelling out in detail the obligation of both parties.

Warehouse receipts are commonly used to finance inventory. The borrower delivers goods to a warehouse, which in turn issues a warehouse receipt to the lender. The goods may be placed in either a public warehouse or a field warehouse. A public warehouse is in the business of storing goods for the general public; a field warehouse is one set up at the borrower's place of business. A field warehouse is leased and maintained by a public warehouse, and no one has access to the property placed in it except the authorized employees of the public warehouse.

Finally, trust receipts are evidence that certain goods or property to which the lender has acquired title have been released to the borrower in the trust. Title is retained by the lender until sold and accounted for by the borrower. Trust receipts are used in floor planning, which is a form of financing employed frequently by automobile and appliance dealers. The lender advances a percentage of the invoice price of the shipment. As the goods are sold, the borrower must immediately reduce the portion of the loan applicable to the goods sold.

Summary. At one time accounts receivable financing, factoring of receivables, and inventory financing had a stigma attached to them; it was felt that the business resorting to financing of this kind was in trouble and perhaps on the verge of bankruptcy. While some businesses may feel a perfectly legitimate reluctance to engage in receivables financing or factoring, this type of financing is ideal for many concerns. So important is the potential for growth in this industry that larger commercial banks, in certain parts of the country, are rapidly moving into it, through the acquisition or creation of commercial finance divisions.

Equipment Financing

Equipment financing can be accomplished through sources other than commercial finance companies and can take several forms. It can involve financing of equipment currently owned by the company, financing of the purchase of new equipment, sale-leaseback financing, or lease financing. Each form of equipment financing may be appropriate at different times and under different conditions.

Financing of Currently Owned Equipment. If a company has equipment that is fully paid for and in good condition, it can often obtain funds by pledging the equipment as collateral for a loan. This is usually accomplished under article 9 of the UCC through the use of a written security agreement on the equipment.

Financing of the Purchase of New Equipment. Manufacturers of new equipment recognize that it is frequently necessary to provide financing arrangements as part of a sales package. Some manufacturers discount the purchasers' notes at their banks. Other manufacturers act as agents for lending institutions offering installment plans as part of the terms of sale. Under installment financing, title is usually retained by the manufacturer until all payments are made. If the purchaser arranges direct installment financing with a financing institution, a lien on equipment is usually taken by the institution.

Sale-Leaseback. The sale-leaseback method of financing has become increasingly popular. Under this arrangement, a company concurrently sells its property to an insurance company or other investor and leases it back to be assured of continued use or occupancy. The lessee obtains needed working capital, and the lessor obtains a lease commitment that assures recovery of the purchase price plus interest for use of the money over the life of the lease.

Lease Financing. The leasing of equipment has become an increasingly important method of financing. Without making a substantial cash payment or incurring a large obligation, a company can acquire the use of equipment by merely committing itself to make a specified number of payments. As a result, the number of leasing companies has grown rapidly in recent years, and banks and insurance companies have entered this field.

Any type of equipment can be leased. The lease is usually written on the total customer selling price (including transportation charges and taxes) and is drawn for a period of time. The total amount to be paid is computed by adding finance charges to the total customer selling price.

Other Sources of Funds

Life Insurance Companies. Life insurance companies are a leading institutional source of long-term debt financing. Corporate bonds and business mortgages represent by far the majority of their investments. However, their fiduciary responsibilities to policyholders and a vast network of state regulations governing their investment policy tend to limit business loans to borrowers of large amounts, generally large corporations, with high credit ratings.

Life insurance companies' financing of small business is almost exclusively long-term and is done through real estate mortgages. Life insurance companies rarely invest in the bonds of small corporations.

Loans on life insurance policies and mortgages of residential property to raise business capital are also, of course, a source of funds provided by life insurance companies.

Other Institutional Sources. Life insurance companies are by no means the only institutional source from which a qualified small business can borrow long-term funds, although the loan policies and practices of life insurance companies establish the character of institutional lending in general. Other institutional sources include fire and other insurance companies, savings banks, pension funds, universities and educational foundations, investment trusts and banks, and charitable organizations.

The Small Business Administration. The Small Business Administration (SBA) is a permanent, independent government agency created by Congress in 1953 to encourage, assist, and protect the interests of small businesses. Congress has directed the SBA to take the lead in identifying and analyzing small business problems, to be the advocate of small business, to foster and coordinate the research and organization of significant data, and to initiate ideas and innovations that will widen opportunities for small businesses to get started and compete on an equitable basis. Among the SBA assistance programs are business loans, direct and immediate participation loans, loan guarantees, economic opportunity loans, and disaster loans.

Venture Capital Organizations. A number of capital sources are directed specifically at new business ventures. Among such sources are private venture capital firms, small business investment companies (SBICs), minority enterprise small business investment companies (MESBICs), and community development corporations (CDCs).

Public Ownership. Various methods exist for exchanging equity in a small business for needed funds. Some of these are employee stock ownership plans (ESOPs), private placements, intrastate security offerings, and offerings covered by the Federal Securities Act.

APPENDIX 8/B

CASE STUDY: ASSISTING ATLAS MANUFACTURING CORPORATION IN OBTAINING FUNDS

The following case study illustrates the nature of a consulting services engagement in which a CPA assists a small business client in obtaining funds. Since such engagements may vary considerably, nothing in this appendix should be assumed to be applicable to or appropriate for every such engagement.

This case study provides illustrations relating to the following tasks:

- Identifying and gathering information and data required to develop a business plan
- Outlining a typical engagement work plan
- Determining the financial needs of the business through budget and cash flow projections
- Developing a financing package containing examples of financial statements, schedules, and other data required by a funding source
- Identifying and illustrating information and documentation typically contained in a working paper file

This case study addresses many of the typical problems of a small, growing business, such as growth-related problems, inadequate capital, unsophisticated management, lack of management records and reports, and lack of specific management plans and goals.

Compliance With Professional Standards

When reporting on financial projections or forecasts, the accountant should be aware that the American Institute of Certified Public Accountants has published the following literature relating to this area:

- Rule 201, "General Standards," of the AICPA Code of Professional Conduct
- Statement on Standards for Accountants' Services on Prospective Financial Information
- Statement of Position 89-3, *Questions Concerning Accountants' Services on Prospective Financial Statements*
- *Guide to Prospective Financial Statements*

The Statement on Standards for Accountants' Services on Prospective Financial Information distinguishes between a financial forecast and a financial projection and establishes procedures and reporting standards for a compilation service and an examination service on prospective financial statements. It also establishes standards for services to apply agreed-upon procedures to prospective financial statements. In addition, the statement prohibits an accountant from compiling, examining, or applying agreed-upon procedures to prospective financial statements that omit a summary of significant assumptions. Furthermore, it prohibits use of the accountant's name in conjunction with a financial projection used by persons not negotiating directly with the responsible party unless the projection supplements a forecast.

Background

George Hanover, a partner in the accounting firm of Hanover & Company, CPAs, received a call from a client. The client referred him to a friend, Dave Simpson, whose business, Atlas Manufacturing Corporation, appeared to have cash problems that he did not know how to solve. Dave Simpson was looking for help, so George Hanover made an appointment to visit Atlas Manufacturing the next day.

At the meeting, George asked Dave to tell him about the company's problems. Dave indicated that the company was growing, its products were well received, and prospects for increased volume were excellent. However, the more the company grew, the more pressure Dave felt in trying to pay his bills on time. Some creditors were starting to express impatience. In addition, Dave was not sure if his company was realizing reasonable profits commensurate with growth.

George told Dave that the problems were not unique and could often be corrected through a combination of budgets, cash management, and outside financing. However, they would need information to develop a plan and a financing package.

George arranged to come back to conduct a preliminary survey to determine whether his firm could be helpful. George would use the information gathered in the preliminary survey to determine Atlas Manufacturing Corporation's acceptability as a client and to appraise his ability to help this prospective client achieve a successful result. At the same time, he would gather information needed to develop a proposal or engagement letter and to make an initial judgment on the probable funding approach, including data that might be used in preparing documents for the funding proposal package. George prepared the following checklist of information to be gathered during the preliminary survey:

- Nature of the business and its products
- History of the business
- A description of the market served
- Current financial statements and budgets
- Dave Simpson's explanation of the cash problems
- Dave Simpson's personal goals
- Current corporate plans for growth
- An organizational chart, including history and background of management
- Identity of the bank, bankers, and professionals serving the corporation

In addition, George asked for a tour of the plant and an explanation of the manufacturing process. George Hanover and Dave Simpson met again the following day. George was able to get most of the information that he wanted. He discovered, for instance, that the company had not previously prepared budgets and that the company's accounting and financial reporting were handled internally.

George suggested that Dave consider a consulting services engagement since it appeared that his firm could provide needed business assistance and the Atlas Manufacturing Corporation met his firm's criteria for an acceptable client. George and Dave discussed matters related to the engagement objectives, scope, services to be performed, professional fees, engagement timing, and so on. An agreement was reached for the engagement of George's firm. An engagement letter was sent confirming the agreement (exhibit 8B-1).

Exhibit 8B-1

Engagement Letter
Atlas Manufacturing Corporation

May 14, 19XX

Hanover & Company
5 Middle Street
Smithville, Ohio 00000

Mr. Dave Simpson, President
Atlas Manufacturing Corporation
Smithville, Ohio 00000

Dear Mr. Simpson:

This letter outlines our understanding of the arrangements we made yesterday about assisting Atlas Manufacturing Corporation in obtaining new financing.

Nature and Scope of Work

We shall perform a study of Atlas Manufacturing's financing needs and the underlying reasons for these needs. Based on the study, we shall advise you concerning the most appropriate sources of funds and methods of financing. We shall assist you in evaluating the alternatives and in choosing the source and method best suited to you.

Having determined the amount needed, the purpose, the source, and the method, we shall assist you in preparing a business plan and the other documents necessary to make an effective presentation of your needs to the financing source.

We shall assist you in the presentation and negotiation of the financing terms and conditions, as necessary.

Roles

To provide an effective framework for this engagement, both parties must have a clear understanding of their respective roles.

Our role encompasses the following:

- Gathering data about the history and finances of the business
- Analyzing the business's financial requirements

- Identifying sources and methods of financing suited to your needs
- Assisting in evaluating the financing sources and methods
- Assisting in preparing business plans
- Assisting in preparing the financing application package (documents)
- Assisting in presentation of the application package and in negotiation of terms and conditions

Your role encompasses the following:

- Providing financial and other records and data that we request
- Making your key people available for interviews and conferences
- Making timely decisions on the various aspects of this engagement as it progresses
- Cooperating with our staff in developing the business goals and objectives necessary to prepare a workable business plan

Our role is essentially one of assisting, evaluating, and advising; although we will exert our best effort, we offer no assurance that financing will be obtained.

Results and Benefits

The tangible results of this engagement will be a written business plan that clearly defines the objectives and goals of the business and outlines the manner in which they are to be achieved, and the financing or funding package necessary for adequate presentation of your needs to a financing source. The intangible results of this engagement should include key management personnel's gaining a better understanding of objectives and goals and of the opportunities and challenges facing the business and the resources available for dealing with them.

Timing

We will begin work on this engagement immediately and expect to complete the engagement in approximately ten weeks. This timetable assumes adequate cooperation on the part of your personnel and the ready availability of the information needed for the preparation of the various documents required.

Engagement Completion

We shall consider the engagement complete when all documents necessary for the funding needs presentation are complete and a "best effort" presentation has been made. We shall provide you with a letter at this time advising you that the engagement is complete. If funding is not received after this presentation and you wish us to assist you in presentations to alternate sources, you may extend this engagement by notifying us of your intent in writing.

If, during the course of the engagement, either of us becomes aware of facts or circumstances that would preclude a successful conclusion of the engagement, the engagement may be terminated by written notification of the other party.

Fees and Payments

Our fees for this engagement are based on time expended at our standard hourly rates. Any out-of-pocket expenses will be billed in addition to our fees. Our normal practice is to issue invoices monthly as the work progresses for the fees and expenses incurred. Our invoices are payable upon receipt.

If any of the contents of this letter differ from your understanding of this engagement, please notify us at once so that we can establish a proper mutual understanding.

We appreciate this opportunity to serve Atlas Manufacturing Corporation and look forward to a mutually profitable association.

Sincerely,

George Hanover, CPA

Exhibit 8B-2

Work Plan
Atlas Manufacturing Corporation

1. Prepare a spread of balance sheets and income statements for the three years ended April 30, 19X3.

2. Compare financial statements for the three years ended April 30, 19X3, with the company's books and tax returns.

3. Check balance sheet amounts against supporting schedules for unusual items—deviations, loan repayments, and so forth.

4. Segregate sales according to such important components as customer, discount, and product line for the year ended April 30, 19X3.

5. Determine the direct costs of the components of sales segregated in step 4 and compare them with income statements for the year ended April 30, 19X3. Obtain explanations from management of major deviations and save the results for projections. If we cannot do this on an overall basis, we will do it on a test basis.

6. Identify significant elements on all other expense accounts of material amount. Segregate fixed and variable expenses.

7. Have management prepare an operating budget and related notes for the year ended April 30, 19X4. (It may be necessary to assist them in the preparation of the budget, but the estimates must be management's.)

8. Compare the operating budget and related notes from step 7 with data from steps 1, 2, 4, 5, and 6 for consistency and reasonableness. The related notes should explain items appearing to be inconsistent or unreasonable. Challenge management to support unusual items.

9. Question management about future capital commitments or anticipated transactions for the year ended April 30, 19X4, which will affect such requirements as machinery acquisitions, debt servicing, and inventory growth.

10. Identify and note such cash flow items as the timing of receivable collections and of payment to vendors, and collection or payment of other balance sheet items.

11. Check with management and the company attorney for contingencies.

12. Obtain from management, or assist management in preparing, condensed operating budgets and cash projections for three to five years beyond April 30, 19X4. Review them for reasonableness and consistency.

13. Assist in cash projection preparation (based on the management estimates from step 7), by month, for the year ended April 30, 19X4. Support both the operating budget prepared in step 7 and the cash projection with footnotes. Future years' operating budgets and cash projections might be prepared quarterly or annually.

14. Assist in preparation of a prospective balance sheet as of April 30, 19X4.

15. Review insurance coverage (fire, liability, and key man).

16. Obtain from management missing documents for the funding proposal package to be prepared in step 17.

17. Assemble the funding proposal package. Include a description of the business; company history; a profile of the management team; discussion of the use of proceeds; financial statements for three years (plus interim period) and schedules, receivables, inventories, fixed assets, and payables; financial projections; and personal financial statements of Mr. and Mrs. Simpson.

18. Review for completeness the attached checklist of suggested documents and schedules for workpaper files.

Exhibit 8B-3

Useful Documents and Schedules for Workpaper Files

1. Engagement letter
2. Client's representation letter
3. Copies of prior financial statements
4. Work program for funding package and supporting documents
5. Memo about conferences with principals outlining the assumptions, objectives, and needs
6. Historical schedule of sales by product line for each month to develop cyclical data (inventories, cash, loans, and so forth)
7. Supporting schedule for assumptions regarding projected sales, indicating elements that create changes, such as sales mix, unit price change per estimated inflation rate, new products, expansion sales territory, and enhanced product reputation
8. Gross margin analysis by product line
9. Expense projections, indicating amounts and basis for assumptions, such as increased staff, increased facilities, and inflation
10. Schedule of net cash receipts on sales, indicating timing, amount, and estimated attrition of receivables, discounts, bad debts, and returns
11. Schedule of calculation of inventory levels
12. Loan, lease, and stock restrictions, and so on
13. Schedule and documentation to support capital need

Exhibit 8B-4

Funding Proposal Package
Atlas Manufacturing Corporation

May 4, 19XX

Atlas Manufacturing Corporation
Smithville, Ohio 00000

First National Bank of Ohio
Corner East 3rd and State Streets
Smithville, Ohio 00000
Attention: Mr. James Herman

Gentlemen:

Enclosed please find documents related to our request for a term loan in the amount of $75,000 and short-term loans ranging from $80,000 to $295,000, as indicated in cash projections. This loan request is supported by the following exhibits and schedules:

I. Description of the business

II. Company history

III. The management team

IV. Business plan and use of loan proceeds

V. Financial statements

   A. For the periods ended April 30, 19X3

   B. Financial statement schedules

      1. Aged receivables

      2. Inventories

      3. Fixed assets (cost and fair market values)

      4. Aged accounts payable

VI. Financial projections for the periods ended April 30, 19X4

VII. Personal financial statements of Mr. and Mrs. Dave Simpson

Per your request, we are submitting these documents for your review before meeting with you. If there are any questions prior to that meeting, please direct them to either Mr. George Hanover, CPA, or myself.

Very truly yours,

Dave Simpson, President
DS/ec

I. Description of the Business

Atlas Manufacturing Company is in the business of manufacturing ladies' handbags, wallets, and other personal accessories. The primary materials used are vinyl and leather. The company designs its own products, primarily following current fashion trends.

Sales are predominantly to chains and major department stores. To expand its market to smaller department stores and women's specialty shops, the company opened a showroom in New York in June 19X2. Dave Simpson personally handles sales to chain stores, and two salesmen are employed to serve other customers. Sales are made on the basis of a 2-percent discount if paid in ten days, except that 50 percent of merchandise sold during the months of June through September is sold on a dating basis with payment due December 10.

The company employs a total work force of forty-eight persons, of whom thirty-five perform direct labor and the rest perform indirect labor, administration, supervision, and so on. The direct labor force consists primarily of unskilled people who have been trained in-house. To preserve a constant and efficient work force, management has elected to maintain an even level of production, with the result that inventory levels build to a high point in May of each year.

Overall, selling prices are currently established to yield a variable margin of 50 percent after direct costs.

The company currently uses 5,000 square feet of floor space in rented quarters. The space is inadequate and inefficient. The company cannot grow in its existing quarters.

The equipment used in the business consists primarily of sewing machines, cutting equipment, work tables, and storage shelving and racks.

II. History of Atlas Manufacturing Corporation

The company started operations in May 19W5 as an equal partnership between Dave Simpson and Fred Smith. The two men had worked together in a business similar to Atlas Manufacturing for the preceding five years. At the outset, Dave Simpson and Fred Smith each invested $5,000 in the partnership.

Dave Simpson and Fred Smith initially performed all tasks except clerical and bookkeeping functions, which were performed by Mrs. Simpson.

In May 19W7 Fred Smith sold his interest in the partnership to Dave Simpson for $18,500 to enter into a different venture. Funds to buy out Smith's interest were borrowed from a relative and paid back by 19X0.

The company was incorporated on May 26, 19W7, when it authorized 10,000 shares of $10 par value stock. On incorporation, 1,500 shares were acquired by Dave Simpson.

The company has had steady growth, as represented by the following sales pattern:

Sales for the period ended April 30,	19W8	$206,137
	19W9	269,642
	19X0	384,051
	19X1	512,334
	19X2	615,728
	19X3	826,375

III. The Management Team

Dave Simpson, President

Mr. Simpson is thirty-seven years old. He completed two years at Smithville Junior College in 19V6, taking courses primarily in business administration. Mr. Simpson worked for five years in a major department store, starting as a sales clerk and moving to the position of assistant buyer. He left the department store in 19W1 to work for Gem Manufacturing Company. From 19W1 to 19W5, he was involved in sales, calling on chains and department stores. In addition, he was liaison between customer and company designers to communicate customers' desire for new items. Because Mr. Simpson was unable to acquire an equity position with Gem Manufacturing Company, he and Fred Smith organized Atlas Manufacturing Corporation. Mr. Simpson's current duties consist of management of the company's sales and finances, advisement in design, setting of production levels, and other management functions. It is Mr. Simpson's desire, with growth of the company, to build a larger management team and to divest himself of some of his current duties.

Ruth Simpson, Secretary-Treasurer

Mrs. Simpson is thirty-four years old. She graduated from Ohio State University School of Business Administration in 19W1. She performed secretarial and accounting functions in the office of Gem Manufacturing Company. Mr. and Mrs. Simpson were married in 19W2. When Dave Simpson and Fred Smith started the company in 19W5, Mrs. Simpson handled clerical and bookkeeping functions. She now works on a part-time basis, reviewing cash disbursements and signing checks for accounts payable and payroll. She devotes the balance of her time to being a homemaker and mother of two children, aged four and six.

Albert Chambers, Accountant

Mr. Chambers, twenty-eight years old, is married and has one child. A graduate of Ohio State University, he has been employed by Atlas for two years. He had previously been employed by a local accounting firm. Mr. Chambers manages the office staff of two clerical employees, does the firm's accounting, and prepares internal financial statements and all tax returns other than income tax.

James Gittings, Production Manager

Mr. Gittings is fifty-three years old, is married, and has been an employee of the company for the last year and a half. He and Mr. Simpson worked together at Gem Manufacturing. Mr. Gittings has been in the same industry for the last twenty-two years and in a supervisory capacity for the last sixteen years.

Gwen Owens, Designer

Miss Owens is twenty-six years old and single. She is a graduate of the National School of Design. She has been with the company for the last eleven months and is still being trained. She reports to Mr. Gittings but receives creative ideas for product design from Mr. Simpson.

IV. Business Plan and Use of Loan Proceeds

Use of Proceeds of New Term Loan

Leasehold improvements (including required employee rest areas, offices, electric wiring, cabinetry, etc.). Company growth requires additional space for greater production capability. The company's current space of 5,000 square feet will be replaced by 15,000 square feet, with provision for growth to 30,000 square feet.	$27,000
Additional production equipment to support increased sales (per attached schedule)	32,000
Retirement of current bank term loans	16,000
Total use of proceeds	$75,000

Use of Short-Term Line of Credit

Amounts of $80,000 to $295,000 are required, on a seasonal basis, as indicated in the cash flow projections. It is expected that in the second year there will be a seasonal clean up of the loan. Approximate cash balances of $20,000 will be maintained.

Corporate Goals

1. Increase production capacity and efficiency.
2. Increase profitability of operations.
3. Contribute to increased financial strength.
4. Improve vendor relations by prompt payment and establish a basis for price improvement on purchase volume and credit rating.

V. Projected Financial Data for the Fiscal Year Ending April 30, 19X4 (Statement of Management Assumptions)

(The accompanying prospective financial statements are based on the assumption that funds are borrowed in the projected amounts and on the following additional assumptions.)

Note 1. Sales are based on past history, an estimated 10-percent inflation factor, and management's estimate of increased sales from improved market share and expansion of product base through the addition of new lines.

Net sales for fiscal year ended April 30, 19X3		$ 826,375
Projected volume increases	$126,233	
Inflation adjustment	82,675	
Added sales from increased production		208,908
Total projected net sales		$1,035,283
Rounded		$1,035,000

Note 2. Direct cost of goods sold is based on an anticipated direct material cost of 25 percent of net sales and a total direct labor cost of 25 percent of net sales on the overall product mix. Labor cost includes payroll taxes.

Note 3. Operating expenses and manufacturing overhead are based on historical data and management's estimates of additional costs related to expansion of the company's sales volume.

Note 4. Payroll taxes are calculated at 10 percent of payroll.

Note 5. Bad debts equal 1 percent of sales.

Note 6. Discounts are earned on purchases of manufacturing materials and supplies plus sundry discountable items. Total discounts earned are estimated to be $400 per month.

Note 7. Discounts allowed equal approximately 1.25 percent of receivables collected.

Note 8. Interest expense is based on estimates of interest due on existing notes payable and interest on additional borrowing at an assumed rate of 15 percent per annum.

Note 9. Provision for income taxes is calculated at estimated 25 percent effective federal and state tax rates. It is assumed that income taxes will be paid in the subsequent year.

Note 10. Collections on accounts receivable are based on an estimated forty-five-day collection period. Dated billings are collected in accordance with dating arrangements.

Note 11. Accounts payable as of April 30, 19X3, equal to $77,160, are converted to notes payable-vendors. These new notes, coupled with existing notes, will be payable at $15,000 per month plus interest at 15 percent per annum from May 31, 19X3. Total new notes equal $90,000.

Note 12. Note payable-officer represents funds borrowed by the officer and loaned to the company. Repayment is required to allow the officer to meet personal commitments. The note does not bear interest.

Note 13. Payment for regular material acquisitions are to be made in the month following purchases.

Note 14. Deferred operating expenses are those expenses paid in the month following purchase, as follows:

Overhead	$3,600
Selling	3,050
General	1,050
	$7,700

With the exception of accrued payroll taxes and other accrued expenses, operating expenses and overhead are normally paid during the month in which they are incurred. Operating expenses are based on historical data and management's estimates of additional costs related to expansion of the company's sales volume.

Note 15. Principal payments on long-term loans are based on the assumption that existing notes payable will be replaced with a new long-term note. The new note will be payable in equal installments of principal plus interest over a five-year period.

Note 16. Short-term loan activity assumes borrowings and repayments over the projection period necessary to support the projected expansion in sales volume and the related increases in accounts receivables and inventories.

Exhibit 8B-4.1

Atlas Manufacturing Corporation
Projected Statement of Income
for the Year Ending April 30, 19X4

	19X3								19X4				
	May	June	July	August	September	October	November	December	January	February	March	April	Total
Sales(1)	$60,000	$90,000	$93,000	$93,000	$150,000	$135,000	$69,000	$66,000	$75,000	$75,000	$69,000	$60,000	$1,035,000
Cost of Sales													
Materials (2)	15,000	22,500	23,250	23,250	37,500	33,750	17,250	16,500	18,750	18,750	17,250	15,000	258,750
Direct labor (2)	15,000	22,500	23,250	23,250	37,500	33,750	17,250	16,500	18,750	18,750	17,250	15,000	258,750
Manufacturing overhead (3)	10,570	10,570	10,570	10,570	10,570	10,570	10,570	10,570	10,570	10,570	10,570	10,570	126,840
Total cost of sales	40,570	55,570	57,070	57,070	85,570	78,070	45,070	43,570	48,070	48,070	45,070	40,570	644,340
Gross margin	19,430	34,430	35,930	35,930	64,430	56,930	23,930	22,430	26,930	26,930	23,930	19,430	390,660
Operating expense (3)													
Selling	11,450	11,450	11,450	11,450	11,450	11,450	11,450	11,450	11,450	11,450	11,450	11,450	137,400
General	11,780	12,080	12,110	12,110	12,680	12,530	11,870	11,840	11,930	11,930	11,870	11,780	144,510
Total operating expense	23,230	23,530	23,560	23,560	24,130	23,980	23,320	23,290	23,380	23,380	23,320	23,230	281,910
Operating income	(3,800)	10,900	12,370	12,370	40,300	32,950	610	(860)	3,550	3,550	610	(3,800)	108,750
Other income—expense													
Discounts earned (6)	400	400	400	400	400	400	400	400	400	400	400	400	4,800
Discounts allowed (7)	(515)	(640)	(655)	(570)	(580)	(760)	(1,315)	(3,050)	(1,730)	(880)	(940)	(900)	(12,535)
Interest expense (8)	(437)	(1,888)	(2,387)	(3,625)	(4,047)	(4,469)	(4,766)	(4,562)	(2,422)	(1,719)	(1,828)	(1,813)	(34,063)
Total other income—expense	(552)	(2,228)	(2,642)	(3,795)	(4,227)	(4,829)	(5,681)	(7,212)	(3,752)	(2,199)	(2,368)	(2,313)	(41,798)
Income before income taxes	(4,352)	8,672	9,728	8,575	36,073	28,121	(5,071)	(8,072)	(202)	1,351	(1,758)	(6,113)	66,952
Provision for income taxes (9)	0	1,080	2,432	2,144	9,018	7,030	(1,268)	(2,018)	(50)	338	(489)	(1,479)	16,738
Net income—loss	$(4,352)	$ 7,592	$ 7,296	$ 6,431	$ 27,055	$ 21,091	$ (3,803)	$ (6,054)	$ (152)	$ 1,013	$(1,269)	$(4,634)	$ 50,214

Exhibit 8B-4.2

Atlas Manufacturing Corporation
Schedule of Projected Manufacturing Overhead
for the Year Ending April 30, 19X4

	19X3								19X4				
	May	*June*	*July*	*August*	*September*	*October*	*November*	*December*	*January*	*February*	*March*	*April*	*Total*
Manufacturing overhead (3)													
Supervision	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 24,000
Design salaries	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	14,400
Other indirect salaries	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	18,000
Payroll taxes (4)	470	470	470	470	470	470	470	470	470	470	470	470	5,640
Packing material and supplies	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	14,400
Rent	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	13,200
Light, heat, and power	700	700	700	700	700	700	700	700	700	700	700	700	8,400
Insurance	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Parts, repairs and maintenance	700	700	700	700	700	700	700	700	700	700	700	700	8,400
Depreciation and amortization	500	500	500	500	500	500	500	500	500	500	500	500	6,000
Other manufacturing overhead	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Total manufacturing overhead	$10,570	$10,570	$10,570	$10,570	$10,570	$10,570	$10,570	$10,570	$10,570	$10,570	$10,570	$10,570	$126,840

Exhibit 8B-4.3

Atlas Manufacturing Corporation
Schedule of Projected Selling and General Expenses
for the Year Ending April 30, 19X4

	19X3 May	June	July	August	September	October	November	December	19X4 January	February	March	April	Total
Selling expenses (3)													
New York showroom													
Salaries	$ 6,000	$ 6,000	$ 6,000	$ 6,000	$ 6,000	$ 6,000	$ 6,000	$ 6,000	$ 6,000	$ 6,000	$ 6,000	$ 6,000	$ 72,000
Payroll taxes (4)	600	600	600	600	600	600	600	600	600	600	600	600	7,200
Rent, utilities	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Telephone	800	800	800	800	800	800	800	800	800	800	800	800	9,600
Office supplies	150	150	150	150	150	150	150	150	150	150	150	150	1,800
Postage	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Insurance	600	600	600	600	600	600	600	600	600	600	600	600	7,200
Total—New York	9,250	9,250	9,250	9,250	9,250	9,250	9,250	9,250	9,250	9,250	9,250	9,250	111,000
Entertainment and travel	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	18,000
Auto expenses	300	300	300	300	300	300	300	300	300	300	300	300	3,600
Auto depreciation	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Other selling expenses	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Total selling expenses	$11,450	$11,450	$11,450	$11,450	$11,450	$11,450	$11,450	$11,450	$11,450	$11,450	$11,450	$11,450	$137,400
General expenses (3)													
Officers' salaries	$ 4,500	$ 4,500	$ 4,500	$ 4,500	$ 4,500	$ 4,500	$ 4,500	$ 4,500	$ 4,500	$ 4,500	$ 4,500	$ 4,500	$ 54,000
Office salaries	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	45,600
Payroll taxes (4)	830	830	830	830	830	830	830	830	830	830	830	830	9,960
Accounting	350	350	350	350	350	350	350	350	350	350	350	350	4,200
Losses on bad accounts (5)	600	900	930	930	1,500	1,350	690	660	750	750	690	600	10,350
Contributions	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Dues and subscriptions	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Employee benefits	500	500	500	500	500	500	500	500	500	500	500	500	6,000
Legal	150	150	150	150	150	150	150	150	150	150	150	150	1,800
Miscellaneous	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Office supplies	300	300	300	300	300	300	300	300	300	300	300	300	3,600
Postage	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Telephone	250	250	250	250	250	250	250	250	250	250	250	250	3,000
Total general expenses	$11,780	$12,080	$12,110	$12,110	$12,680	$12,530	$11,870	$11,840	$11,930	$11,930	$11,870	$11,780	$144,510

Exhibit 8B-4.4

Atlas Manufacturing Corporation
Statement of Projected Cash Flow
for the Year Ending April 30, 19X4

	19X3 May	June	July	August	September	October	November	December	19X4 January	February	March	April	Total
Funds to be provided													
From operations													
Net income (loss)	$(4,352)	$ 7,592	$ 7,296	$ 6,431	$ 27,055	$21,091	$ (3,803)	$ (6,054)	$ (152)	$ 1,013	$(1,269)	$(4,634)	$ 50,214
Depreciation	700	700	700	700	700	700	700	700	700	700	700	700	8,400
Decrease (increase) in													
Accounts receivable (10)	(18,950)	(39,000)	(40,500)	(47,250)	(103,500)	(74,250)	36,000	178,000	63,500	(4,500)	6,000	12,000	(32,450)
Inventories	(5,000)	(7,500)	(15,000)	(15,000)	28,500	14,000	0	0	0	0	0	0	0
Increase (decrease) in													
Accounts payable (13)	(83,176)	2,500	17,500	15,000	7,500	0	(7,500)	(7,500)	(7,500)	(5,000)	(5,000)	(10,000)	(83,176)
Notes payable—vendors (11)	77,160	(15,000)	(15,000)	(15,000)	(15,000)	(15,000)	(15,000)	0	0	0	0	0	(12,840)
Accrued expenses	0	0	0	0	0	0	0	0	0	0	0	532	532
Provision for income tax (9)	0	1,080	2,432	2,144	9,018	7,030	(1,268)	(2,018)	(50)	338	(489)	(1,479)	16,738
Total funds from operations	(33,618)	(49,628)	(42,572)	(52,975)	(45,727)	(46,429)	9,129	163,128	56,498	(7,449)	(58)	(2,881)	(52,582)
Additions to long-term loan	0	0	75,000	0	0	0	0	0	0	0	0	0	75,000
Total funds to be provided	(33,618)	(49,628)	(32,428)	(52,975)	(45,727)	(46,429)	9,129	163,128	56,498	(7,449)	(58)	(2,881)	22,418
Funds to be applied													
For production equipment	0	0	32,000	0	0	0	0	0	0	0	0	0	32,000
For leasehold improvements	0	0	27,000	0	0	0	0	0	0	0	0	0	27,000
For principal payments on													
Notes payable to officers (12)	3,000	3,000	3,000	0	0	0	0	0	0	0	0	0	9,000
Long-term loans (15)	3,100	3,000	16,000	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	33,350
Total funds to be applied	6,100	6,000	78,000	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	101,350
Excess (deficit) in funds provided	(39,718)	(55,628)	(45,572)	(54,225)	(46,977)	(47,679)	7,879	161,878	55,248	(8,699)	(1,308)	(4,131)	(78,932)
Beginning cash balance	6,444	16,726	11,098	20,526	16,301	19,324	11,645	19,524	11,402	11,650	12,951	11,643	6,444
Cash excess (deficiency)	(33,274)	(38,902)	(34,474)	(33,699)	(30,676)	(28,355)	19,524	181,402	66,650	2,951	11,643	7,512	(72,488)
Short-term loan activity (16)													
Additions	50,000	50,000	55,000	50,000	50,000	40,000	0	0	0	10,000	0	10,000	315,000
Repayments	0	0	0	0	0	0	0	170,000	55,000	0	0	0	225,000
Ending cash balance	$16,726	$11,098	$20,526	$16,301	$ 19,324	$11,645	$19,524	$11,402	$11,650	$12,951	$11,643	$17,512	$17,512

Exhibit 8B-4.5

Atlas Manufacturing Corporation
Projected Balance Sheets
for the Year Ending April 30, 19X4

	19X3									19X4			
	April	May	June	July	August	September	October	November	December	January	February	March	April
Assets													
Current assets													
Cash	$ 6,444	$ 16,726	$ 11,098	$ 20,526	$ 16,301	$ 19,324	$ 11,645	$ 19,524	$ 11,402	$ 11,650	$ 12,951	$ 11,643	$ 17,512
Accounts receivable—net (10)	62,050	81,000	120,000	160,500	207,750	311,250	385,500	349,500	171,500	108,000	112,500	106,500	94,500
Inventories	129,655	134,655	142,155	157,155	172,155	143,655	129,655	129,655	129,655	129,655	129,655	129,655	129,655
Prepaid expenses	700	700	700	700	700	700	700	700	700	700	700	700	700
Total current assets	198,849	233,081	273,953	336,881	396,906	474,929	527,500	499,379	313,257	250,005	255,806	248,498	242,367
Property, plant, and equipment													
Machinery and equipment	26,643	26,643	26,643	58,643	58,643	58,643	58,643	58,643	58,643	58,643	58,643	58,643	58,643
Furniture and fixtures	28,935	28,935	28,935	55,935	55,935	55,935	55,935	55,935	55,935	55,935	55,935	55,935	55,935
Leasehold improvements	12,438	12,438	12,438	12,438	12,438	12,438	12,438	12,438	12,438	12,438	12,438	12,438	12,438
Automobiles	10,972	10,972	10,972	10,972	10,972	10,972	10,972	10,972	10,972	10,972	10,972	10,972	10,972
	78,988	78,988	78,988	137,988	137,988	137,988	137,988	137,988	137,988	137,988	137,988	137,988	137,988
Less accumulated depreciation	35,194	35,894	36,594	37,294	37,994	38,694	39,394	40,094	40,794	41,494	42,194	42,894	43,594
	43,794	43,094	42,394	100,694	99,994	99,294	98,594	97,894	97,194	96,494	95,794	95,094	94,394
Other assets													
Security deposits	1,774	1,774	1,774	1,774	1,774	1,774	1,774	1,774	1,774	1,774	1,774	1,774	1,774
Total assets	$244,417	$277,949	$318,121	$441,349	$498,674	$575,997	$627,868	$599,047	$412,225	$348,273	$353,374	$345,386	$338,535
Liabilities and shareholders' equity													
Current liabilities													
Notes payable—vendors (11)	$ 12,840	$ 90,000	$ 75,000	$ 60,000	$ 45,000	$ 30,000	$ 15,000	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Accounts payable (13, 14)	105,876	22,700	25,200	42,700	57,700	65,200	65,200	57,700	50,200	42,700	37,700	32,700	22,700
Note payable—credit line (16)	0	50,000	100,000	155,000	205,000	255,000	295,000	295,000	125,000	70,000	80,000	80,000	90,000
Current portion													
long-term debt (15)	22,100	19,000	16,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Note payable—officer (12)	9,000	6,000	3,000	0	0	0	0	0	0	0	0	0	0
Accrued expenses	6,025	6,025	6,025	6,025	6,025	6,025	6,025	6,025	6,025	6,025	6,025	6,025	6,557
Provision for income taxes (9)	0	0	1,080	3,512	5,656	14,674	21,704	20,436	18,418	18,368	18,706	18,217	16,738
Total current liabilities	155,841	193,725	226,305	282,237	334,381	385,899	417,929	394,161	214,643	152,093	157,431	151,942	150,995
Long-term liabilities (15)													
Note payable—bank	22,100	19,000	16,000	75,000	73,750	72,500	71,250	70,000	68,750	67,500	66,250	65,000	63,750
Less current portion—above	22,100	19,000	16,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Total long-term liabilities	0	0	0	60,000	58,750	57,500	56,250	55,000	53,750	52,500	51,250	50,000	48,750
Shareholders' equity													
Common stock	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Paid-in capital	71,173	71,173	71,173	71,173	71,173	71,173	71,173	71,173	71,173	71,173	71,173	71,173	71,173
Retained earnings	2,403	(1,949)	5,643	12,939	19,370	46,425	67,516	63,713	57,659	57,507	58,520	57,251	52,617
Total shareholders' equity	88,576	84,224	91,816	99,112	105,543	132,598	153,689	149,886	143,832	143,680	144,693	143,424	138,790
Total liabilities and shareholders' equity	$244,417	$277,949	$318,121	$441,349	$498,674	$575,997	$627,868	$599,047	$412,225	$348,273	$353,374	$345,366	$338,535

BIBLIOGRAPHY

American Institute of Certified Public Accountants, Statements on Standards for Accountants' Services on Prospective Financial Information, *Financial Forecasts and Projections*. New York: AICPA, 1985.

Bank of America. "Financing Small Businesses." *Small Business Reporter* 13 (1976): 30-31.

Button, Sally. "Financing a New Business." *Money* 7 (May 1978): 55-58, 60.

Dimson, Elroy. "Financing the Smaller Company." *Long-Range Planning* 11 (December 1978): 9-13.

Goldstein, Arnold S. *Strategies and Techniques for Saving Financially Distressed Small Businesses*. New York: Pilot Books, 1976.

Hirshman, Arlene. "How Small Firms Raise Capital." *Dun's Review* 113 (February 1979): 56-57, 60-61.

Jurek, Walter. *How to Properly Finance a Business*. Santa Barbara, Calif.: Quality Services, Inc., 1976.

Klein, Richard. "SBA's Business Loan Programs." *Atlanta Economic Review* 28 (September/October 1978): 28-37.

McKiernan, John. *Planning and Financing Your New Business: A Guide to Venture Capital*. Technology Management distributed by Management Associates, 1978.

Nydegger, Fredrick E., and Blum, Stephen B. "Where Does Growth Money Come From?" *CPA Journal* 48 (1978): 87-92.

Pace, Edmond A., and Collins, Frank. "Bankers-Accountants-Financial Statements: Their Relationship to Small Business Loan Decisions." *Journal of Small Business Management* 14 (October 1976): 16-22.

Rao, Dileep. *Handbook of Business Finance and Capital Sources*. Minneapolis: Interface Corp., 1979.

Rowlett, Steven W.H. "How to Assist Small Business Clients With Bank Loan Applications." *National Public Accountant* 25 (August 1980): 10-18.

Rubel, Stanley M. *Guide to Venture Capital Sources*. 5th ed. Wellesley Hills, Mass.: Capital Publishing Sources, 1981.

Smollen, Leonard, Mark Rollinson, and Stanley M. Rubel. *Source Guide for Borrowing Capital*. Wellesley Hills, Mass.: Capital Publishing Sources, 1980.

9/100 CASH MANAGEMENT

CONTENTS

9/100 CASH MANAGEMENT

9/105 SCOPE OF THIS PRACTICE AID

.01 Cash management involves forecasting, receiving, controlling, disbursing, and investing funds from the operations of a business organization, as well as evaluating an organization's cash-handling procedures and banking practices. The goals are to maximize cash inflow, minimize cash outflow, optimize borrowing terms, and maximize the yield on idle funds to a degree consistent with the risk that management is willing to assume. In essence, cash management seeks to make less cash do more work. The benefits of effective cash management will be improved liquidity and increased profits.

.02 This practice aid provides guidance to practitioners in evaluating and improving a client's current cash management practices and formulating new or revised practices and strategies. It covers the following aspects of cash management engagements:

- Selecting prospective clients that need cash management services
- Marketing the services
- Identifying problems
- Documenting findings and determining their significance
- Deciding whether to comment on the findings and report the comments to the client
- Developing recommendations

.03 This practice aid also provides a sample cash management questionnaire (exhibit 9-1 in appendix 9/A), which the practitioner may use to analyze cash procedures and identify problem areas. The questions are not all-inclusive, and the practitioner may wish to develop an alternative questionnaire that addresses the needs of specific clients.

.04 The practitioner usually concludes the engagement with a written communication to the client, which defines problem areas and recommends opportunities for improvement. (Exhibit 9-3 in appendix 9/A provides a sample final report.) The practitioner may want to consider an additional engagement to implement recommendations and follow up on their effectiveness. The practitioner's involvement in implementation increases the likelihood of successful results.

.05 This practice aid does not exhaustively examine any specific area, and it should not be interpreted as setting standards for providing cash management assistance. Many of the activities discussed may not always need to be performed because the practitioner may already have sufficient knowledge about a client's business to know how to resolve certain cash management problems.

9/110 MARKETING CASH MANAGEMENT ENGAGEMENTS

.01 Cash management marketing programs need to be well thought out, well organized, and documented. If other members of the practitioner's firm support the marketing concept, the chances of acquiring engagements will be enhanced. CPA firms use some of the following techniques to market cash management engagements:

- Identify existing clients who need cash management engagements.
- Publicize cash management services and benefits through articles in firm newsletters and other publications or through separate mailings.
- Conduct seminars to help participants identify their cash management weaknesses. This activity may include distributing self-scoring questionnaires similar to the sample questionnaire in exhibit 9-1 in appendix 9.
- Hold meetings with individual clients to introduce firm members who have cash management experience and competence.
- Speak about cash management to trade associations and other groups.

9/115 ENGAGEMENT SCOPE

Client Acceptance Considerations

.01 To determine whether to undertake an engagement, a practitioner may wish to review the circumstances of a prospective client's request. In initial discussions with a prospective client, the practitioner can learn pertinent information by obtaining answers to the following questions:

- Who referred the prospective client?
- Has the prospective client previously engaged an accountant, and if so, why is a new one being sought?
- Does the prospective client want to establish a continuing relationship with the practitioner, or is this a one-time request for assistance?

- How long has the client been in business?
- What is the nature of the client's current business?
- Who are the owners-partners?
- What is the financial history of the current business?
- Does the management team have the experience and education to make the business successful?
- With whom does the client bank?
- What has been the client's previous experience with this type of service?
- Does it appear that the client would be inclined to implement recommendations?

.02 In deciding whether to accept the engagement, the practitioner needs to consider these additional points:

- Would accepting the client be in keeping with professional standards and with the practitioner's and the CPA firm's policies?
- Does it appear that the practitioner can help the client in a cost-effective manner?

Engagement Understanding

.03 After the practitioner has agreed to assist the client, the parties need to reach an initial understanding about services, including the objective, scope, and conduct of the cash management engagement. The practitioner communicates to the client, preferably in writing, the services to be rendered, the manner in which they will be performed, and the estimated cost. The practitioner may include the following in the engagement understanding:

- A description of the request for services and the preliminary survey
- Identification of the client's need for service
- The benefits of the proposed service
- The scope of services to be provided (usually a phase-by-phase outline of how the services will be performed, feedback to the client on the engagement's progress, and a statement of client responsibilities)
- The practitioner's personnel assigned to the engagement

- The client liaison for the engagement
- The cost of services, including the manner of billing and expected payment
- An explanation of how the results will be reported to the client, including the anticipated delivery date

Exhibit 9-2 in appendix 9 provides a sample engagement letter.

Engagement Work Plan

.04 After obtaining approval for the engagement, the practitioner can complete the engagement work plan. The plan is initially directed toward the areas that either concern the client most or offer the greatest benefits. The benefits might include increased cash flow, higher interest earnings, reduced borrowing costs, or increased purchase discounts. Usually based on information gathered in the preliminary survey (if one was conducted), the plan contains the names of consulting and client personnel to be involved, as well as their respective roles in the project and a schedule of activities, including estimated completion times.

.05 Cooperation between the client and practitioner is essential for successful completion of the engagement. A positive attitude among client personnel will usually improve the manner in which the practitioner's recommendations are accepted and adopted. Therefore, it is important that the practitioner consider the work schedules and commitments of client personnel designated to assist in the engagement.

.06 Although there is no universal guideline for areas to study in a cash management engagement, the following client procedures are usually reviewed:

- Banking
- Billing and collection
- Purchasing
- Disbursements
- Budgeting
- Forecasting
- Borrowing
- Managerial controls

These topics and others are covered in the sample cash management questionnaire provided in exhibit 9-1 of appendix 9.

9/120 ENGAGEMENT APPROACH

Gathering and Reviewing Information

.01 The practitioner briefly studies the company's history to learn about its cash management activities and any previous assistance in this area. Part of the study involves reviewing the company's financial statements and budgets and preparing such ratios as the following:

- Average collection period
- Outstanding accounts receivable as a percentage of total revenue
- Inventory turnover
- Inventory to current assets
- Current assets to current liabilities
- Quick ratio
- Current liabilities to tangible net worth
- Total debt to equity
- Net profit on sales
- Days of unbilled sales in accounts receivable department

.02 After developing these ratios, the practitioner compares them with industry norms[1] and considers using other ratios if they are unique to the client's industry.

.03 To continue the study, the practitioner obtains an organization chart from the client or, if none is available, has one prepared. To document areas of responsibility and reporting relationships, the practitioner interviews key personnel, determining their current duties and functions and addressing the issue of existing internal controls, particularly in the cash areas.

.04 To review the existing accounting system, the practitioner prepares a flowchart that provides information about cash handling procedures. To study customers' locations, individual volumes of business, and other relevant information, the practitioner obtains the client's customer list, along with an aged accounts receivable report. When appropriate, the practitioner completes a questionnaire similar to the sample questionnaire provided in exhibit 9-1 in appendix 9.

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[1] See section 10/100 "Financial Ratio Analysis."

.05 The practitioner who has prior knowledge of the client's operations usually does not need to perform all of these procedures in every engagement.

Conferring With the Client

.06 Maintaining an open line of communication with the client is important. For example, if, early on, the practitioner discovers significant items affecting the cash management program, such knowledge could alter the direction of or the plan for the engagement. In addition, the practitioner may be able to recommend short-term changes and improvements for immediate implementation and benefit.

.07 In communicating with the client after completing the preliminary study, the practitioner analyzes and summarizes the results and, generally, reviews them in a meeting. At this time, the practitioner may identify additional problem areas, confirm problems already spotted, or determine that certain problems either do not exist or would not be identified as not cost-effective to study. During the meeting, the practitioner discusses forecasting cash flow, analyzing cash inflow, analyzing cash disbursements, and investing cash.

Forecasting Cash Flow

.08 Cash flow forecasts[2] provide important data for estimating cash requirements or for investing idle funds. As used in this practice aid, the term *idle funds* means money that is available in checking or savings accounts but not needed for day-to-day financial transactions. Cash flow forecasts, which can be prepared either manually or by computer with either packaged or customized software, can calculate cash expenditures over the company's forecast periods.

.09 To forecast cash flow, the practitioner needs three types of information: cash on hand, expected cash disbursements, and expected cash receipts. If the client uses centralized cash management, which generates only one bank statement, the practitioner can easily determine cash on hand. If the client uses another method, then the practitioner needs to survey each division or unit.

.10 To calculate disbursements, the practitioner examines such expenditures as the following:

- Payroll
- Material purchases
- Supplies and services

[2] The practitioner who will assist in preparing the financial information can refer to the AICPA Statement on Standards for Accountants' Services on Prospective Financial Information, *Financial Forecasts and Projections*.

- Taxes
- Dividends and interest
- Debt payments
- Employee benefits
- Capital acquisitions

.11 The practitioner determines how much the client will spend for each of these categories and when payments will be made. To estimate cash receipts, the practitioner reviews sales of goods or services, sales of assets, and sales of capital stock or securities.

.12 Depending on the client's needs, cash flow forecasts can be short-term, such as for a year, or long-term, such as for up to five years. For example, if the client needs to balance receipts and disbursements on a daily or monthly basis, the practitioner may use short-term forecasting and determine that the client needs a short-term loan. If, on the other hand, the client's business plan calls for expansion and the client therefore needs long-term financing, the practitioner can use long-term forecasting.

Analyzing Cash Inflow

.13 One major objective of cash management is to maximize cash inflow, which generally involves improving the client's billing and collection procedures for the sale of goods or services. The practitioner also addresses the timing and procedures for the deposit of funds.

.14 **Billing Schedule.** First, the practitioner analyzes billing procedures. A company needs to prepare invoices and send them out to customers as soon as practical. However, sometimes advance payments and progress billings are desirable, especially for special orders and orders for customers who are new or whose credit standing is questionable. Additionally, if the company provides materials and service over an extended period of time, it needs to arrange for progress billings.

.15 The time of the month a customer receives an invoice is also important. Some of the client's customers may have a regular payment schedule. If, for example, a customer's cutoff date for payment of invoices is the twenty-fifth day of the month, it is not good business practice for the client to mail the customer invoices on the last day of the month. If this customer receives invoices on the twentieth day of the month, the client can expect timely payment and avoid a month's delay.

.16 A good policy is to include all invoices with the shipment of goods or to present them to customers at the time of sale. The earlier the customer has the invoice, the earlier the client can expect the payment.

.17 The practitioner studies the advisability of either mailing monthly statements to customers or billing them at the time of the transaction. The client can consider a policy of sending payment reminders to slow-paying customers or including special reminders on past-due accounts. Assessing service charges can also encourage prompt payments from customers. If adopted, this policy generally requires notifying customers at the time of invoicing that late payments will accrue service charges.

.18 **Early Payment Discounts.** The client may offer customers a discount for early payments (a reduced rate for paying before a designated date). The practitioner needs to review any such discount policies, with particular attention to customer payment terms (rates and time periods). The practitioner analyzes the discount policy to determine if it is effective in speeding up collections, too limited to encourage early payment, or more liberal than necessary. When considering discount policies, both the client and practitioner need to be aware of standard practices in the industry.

.19 **Credit and Collection Procedures.** The client needs to institute credit policies and communicate them to its customers and personnel. Such policies are most effective when they are in writing. Equally important is an aggressive collection policy that is consistently enforced with concentrated efforts to identify and collect delinquent accounts. The practitioner prepares a timely aged trial balance of accounts receivable, which is essential to the collection process.

.20 Credit and collection procedures such as the following have been effective:

- Highlight delinquent accounts on the aged trial balance of accounts.
- Place personal telephone collection calls to customers.
- Obtain definite commitments from customers about dates and amounts of payments.
- Initiate follow-up and immediate action if customers do not honor payment commitments.

.21 The client can also collect funds on a timely basis by allowing customers to make payments using major credit cards. Accepting credit cards basically converts charge sales into cash sales. However, the practitioner needs to evaluate the cost and benefits of this approach because banks charge a fee when they deposit credit card funds to sellers' accounts.

.22 **Deposit of Cash Receipts.** Timeliness in depositing cash receipts is important. The sooner payments are deposited, the sooner cash will be available. The deposit process should not be delayed for bookkeeping purposes because such information may be taken and recorded from deposit slips or remittance notifications.

.23 Many banks use an early afternoon cutoff time for crediting deposits. For example, deposits made after 2:00 P.M. are often credited on the following banking day. Thus, use of the funds could be lost for one day simply by delaying the daily deposit a few hours.

.24 To aid in the acceleration of cash inflow for companies with branch offices spread out over a wide area, *concentration banking* may be useful. Under this system, customers are requested to make remittances to the company branch office in their area. Company personnel then make deposits to the local bank, where the deposited funds are transferred electronically to the home-office bank.

.25 An alternative method used for collecting and depositing funds is the lockbox system, whereby customers mail their remittances directly to a special post office box that is opened several times daily by bank personnel. All payments are deposited immediately, eliminating the time the company requires to receive and process incoming checks and make deposits. The bank then prepares collection information and forwards it to the location where the company maintains its accounting records.

.26 Since the lockbox system is usually regional, the geographic location of the lockboxes is extremely important. Some factors to consider are customer locations, Federal Reserve Bank locations, the reliability of the local postal system, and bank charges for the service.

.27 Before deciding whether to recommend either concentration banking or a lockbox system, the practitioner needs to analyze the cost effectiveness of each service.

.28 Another technique that the client can use to speed up cash collections is depositing preauthorized checks from customers. Under this system, customers authorize their banks to charge their accounts periodically for a set amount, and the banks transfer the funds into the client's account.

Analyzing Cash Disbursements

.29 Another major objective of cash management is controlling cash disbursements, which generally involves paying bills in a manner that maximizes the availability of cash.

.30 **Disbursement Schedule.** One of the basic factors in controlling cash outflow is timing payments to maximize the client's use of funds while maintaining good vendor relations. For example, some companies pay their bills on a rigid semimonthly schedule. They will pay all bills received even if the due date is much later than the payment date. In such cases, it is usually worthwhile to make an exception to the regular payment practice and pay that particular bill on its exact due date.

.31 **Disbursement Reductions.** General reduction of operating costs will almost always reduce the disbursements outflow. Therefore, the practitioner examines all significant costs to determine the various areas in which savings may be effected; for example, personnel, high-cost inventory, and general overhead.

.32 **Early Payment Discounts.** It may not be good policy to make early payments simply because a discount is offered. Management needs to consider whether the discount terms offered are attractive in relation to the company's present cash and debt position. The practitioner can help by computing the potential savings and true interest rate.

.33 Zero-Balance Accounts. Some banks offer the zero-balance account (ZBA). The ZBA never has a positive book balance. It is used along with a general account in which funds are accumulated. The required funds are automatically transferred from the general account to the ZBA whenever a check is presented for payment.

.34 As part of the ZBA system, all money is deposited to the general account, with all disbursements passing through it, thus enabling management to have full knowledge of the company's cash position at all times. The ZBA also eliminates the need for the company to maintain balances in separate accounts and idle balances.

.35 Controlled Disbursement. The client may have a controlled disbursement account, which is a bank service that provides same-day notification (usually by early mid-morning) of the dollar amount of checks that will clear against the corporate disbursement account that day. The disbursement bank must receive its final cash letter of the day from the local Federal Reserve Bank early in the morning so the checks can be sorted and the company notified of its funding requirement. If the bank does not physically receive the checks, it must be able to receive a computer transmission from the local Fed listing checks (or totals) to be presented. Same-day funding of presentments received after the initial presentment should be kept at a minimum. These presentments may arise from direct sends or from on-us checks received over the counter or through cash letters from correspondent banks. The impact of these late presentments can be mitigated somewhat by funding the account on a formula based on past clearing experience.

.36 Inventory and Purchasing Policies. The practitioner needs to study the client's inventory and purchasing policies to determine whether the company is maintaining proper inventory levels and has adopted the most cost-effective purchasing procedures. For additional information on effective inventory control, see section 63/100, "Effective Inventory Management for Small Manufacturers." Many companies have learned in the last several years to generate savings by demanding tight delivery schedules and obtaining liberal payment terms from suppliers.

.37 Impact of Tax. The practitioner reviews tax regulations to determine their effect on the outflow of funds. Applicable tax planning techniques can reduce or defer tax payments until later periods.

Investing Cash

.38 The final major objective of cash management is to invest idle funds. Such investing in appropriate instruments earning interest or dividends may have a dramatic impact on a company's net income. The length of time funds can be invested is very important in selecting appropriate investments.

.39 Selecting Investment Institutions and Instruments. To cultivate a good working relationship with the company's principal bank, management can consider investing in that bank's certificates of deposit (CDs) rather than in outside sources. When applying for a loan, the company may use this as a reason to ask for a more favorable interest rate. Management needs to balance the practice against the probability of borrowing. A cash flow forecast will help both the practitioner and client decide on the most desirable investment instruments.

.40 Some banks provide sweep accounts, which are operating, non-interest-bearing checking accounts used in conjunction with money market accounts. A balance over zero, or a predetermined amount to avoid service charges or to meet compensating balance requirements, is "swept" daily into either the money market account as a short-term investment or other applicable investment instruments.

.41 Alternatives to investing through a bank include investing through a brokerage house or handling investments in-house. Regardless of how investments are made, it is advisable for the company to have a written investment policy providing guidelines on the types of eligible investments, limits on investment amounts, and the institutions with which transactions should be made.

.42 **U.S. Government Securities.** As direct obligations of the federal government, U.S. Government securities are probably one of the safest and most liquid investments available. They consist of U.S. Treasury bills, notes, bonds, and federal agency issues. Income from U.S. Treasury bills, notes, and bonds is subject to federal income tax but is exempt from state income taxes.

.43 *U.S. Treasury bills* are sold in denominations of $10,000 to $1 million and mature in three to twelve months. These instruments pay no set interest; instead, they are sold at a discount and mature at face value. Thus, the return is based on the amount of the discount at the time of purchase. The discount rate for U.S. Treasury bills is not always the true interest rate and should be converted for comparison to yields from coupon investments.

.44 *Treasury notes* are classified as intermediate-term debt, issued in denominations of $5,000 to more than $1 million and mature in one to seven years.

.45 *Treasury bonds* are classified as long-term debt, issued in denominations of $1,000 to $1 million, and mature in more than five years from the date of the issue.

.46 *Federal agency issues* are debt obligations of U.S. government federal agencies but not always guaranteed by the U.S. Government. These instruments are available in various denominations and their maturities range from a few days to more than ten years. Most of these securities, except for Federal National Mortgage Association (FNMA) issues, are generally exempt from state and local taxes.

.47 **Other Issues.** Other investment instruments include the following.

.48 *Time deposits* are deposits that must be held at a bank for a specified time period. Of the several forms of time deposits, the most important are:

- Retail CDs correspond to a specified amount of cash left on deposit for a fixed period. Jumbo CDs are deposits of $100,000 or more and are generally sold to corporations and wealthy individuals.

- Negotiable CDs are generally sold in lots of $1 million. They play an important role in the money market, both as a vital source of funds for banks and as an important investment for corporations, money market funds, and so forth.

.49 *Commercial paper* consists of unsecured promissory notes issued by large, established companies. The yield on such an investment is usually higher than that on CDs because the funds are not insured by the Federal Deposit Insurance Corporation (FDIC).

.50 *Repurchase agreements* are arrangements whereby a bank or security dealer sells a specific portfolio of marketable securities to a business organization and agrees to repurchase the securities at a specified price and time. This type of arrangement is generally used for large sums of money and for relatively short periods.

.51 *Mutual funds* are portfolios of marketable securities. Shares can be easily purchased and are quite liquid. The yields are usually higher than those obtainable from many other marketable securities. Some mutual funds may qualify for special tax treatment.

.52 *Bank money market funds* are money market funds offered through commercial banks. Although they provide liquidity, their yields are typically lower than that of money market mutual funds.

.53 *Municipal securities* are debt instruments of state and local governments that are exempt from federal taxes and usually have a lower yield than U.S. securities. They are generally unsuitable for inclusion in a company's marketable securities portfolio because their liquidity is limited and their maturities are often more than ten years.

APPENDIX 9

SAMPLE FORMS AND LETTERS

Exhibit 9-1

Sample Cash Management Questionnaire

	Yes	*No*	*Not Applicable*
Part I—Preliminary Survey			
General			
1. Has a member of management been designated as responsible for the cash management function?	______	______	______
2. Does the accounting system promote an effective and efficient cash management system?	______	______	______
3. Does the organization have a short-term cash forecasting system, including daily and weekly forecasts?	______	______	______
Receipts			
4. Are deposits made at least daily (preferably before the time when deposits are credited to the next day)?	______	______	______
5. Are deposits made intact?	______	______	______
6. Do the customary internal controls on cash, such as separation of duties, seem to exist?	______	______	______
7. Are the returns and allowances controlled?	______	______	______
Accounts Receivables and Collections			
8. Is a credit analysis of prospective customers made?	______	______	______
9. Is a credit limit established for each customer?	______	______	______
10. Are monthly statements sent to customers?	______	______	______

	Yes	*No*	*Not Applicable*
11. Are cash discounts offered? If so, are they effective and are they monitored for timely payment?	______	______	______
12. Are procedures in place to collect past-due accounts?	______	______	______
13. Are interest or late charges assessed on past-due accounts?	______	______	______
14. Are detailed accounts receivable and bank accounts reconciled on a timely basis?	______	______	______
Accounts Payable			
15. Are the best terms secured for all purchases?	______	______	______
16. Are available purchase discounts taken when economically appropriate?	______	______	______
Disbursements			
17. Are unnecessary advances, such as those to salespeople, discouraged?	______	______	______
18. Are bills properly approved before payment?	______	______	______
Fixed Assets and Other Expenditures			
19. Is there an operating budget, and is it in use?	______	______	______
20. Is there a capital budget?	______	______	______
Banking and Investments			
21. Are average daily balances in the checking accounts kept to a minimum, with most of the funds in an interest-bearing account or other appropriate investment?	______	______	______
22. Are the number of bank accounts kept to a minimum?	______	______	______

	Yes	No	Not Applicable
Long-Range Planning			
23. Has the company prepared long-range forecasts or projections?			

Part 2—General Fact-Finding

	Yes	No	Not Applicable
General			
1. Are life insurance policies reviewed to determine available cash loan values?			
2. Are idle assets, such as obsolete inventory or equipment, converted into cash?			
3. Can cash flow be improved by increasing production?			
Bank Accounts			
4. Is there a central record of all checking and saving accounts?			
5. Does the company use a bank's cash management services? (If yes, review the services for terms favorable to the company.)			
6. Is there sufficient data on amounts in transit and float amounts?			
7. Does the company periodically request an account analysis from the bank?			
8. Has the company compared the cost of paying for banking services through fees as opposed to compensating balances?			
Receipts			
9. Are cash receipts deposited and recorded promptly?			
10. Are deposits made to coincide with same-day bank recording?			
11. Has the company considered a lockbox system? (If yes, review the system for maximum efficiency.)			

	Yes	No	Not Applicable
12. Do banks provide instant credit for charge cards?			
Accounts Receivable and Collections			
13. Are invoices prepared frequently, daily, weekly, or as shipped, if practical?			
14. Are credit policies in writing? Are they followed by company personnel? Have they been clearly communicated to customers?			
15. Is there proper follow-up for overdue payments, such as phone calls, collection letters, and review of payment commitments?			
16. Are old accounts turned over for collection?			
Accounts Payable			
17. Are extended payment terms aggressively sought from suppliers?			
18. Is a schedule prepared and updated for the systematic payment of invoices?			
Disbursements			
19. Are vendor payments held the maximum amount of time allowable while still protecting the company's credit standing?			
20. Has the company considered using a controlled disbursement account to gain more float on checks?			
21. Has the company considered using zero-balance accounts for disbursements?			
22. Is there a policy requiring special authorization for expenditures over a set amount?			
23. Are discretionary purchases kept to a minimum?			

	Yes	No	Not Applicable
24. Are goods and services paid for before or after they are received?	______	______	______
25. To avoid duplicate payment, are bills stamped or otherwise marked when paid?	______	______	______
26. Are bills paid by invoice rather than by statement?	______	______	______

Borrowing and Investments

27. Does the company have a written statement of investment policies and strategy?	______	______	______
28. Does the company maintain a central record of all investments?	______	______	______
29. Has the company arranged formal banking agreements or credit?	______	______	______
30. Are investments of idle funds monitored regularly to ensure an adequate return on investment?	______	______	______
31. Are existing loans regularly compared with alternative financing sources?	______	______	______
32. Has prepayment of existing loans been considered?	______	______	______
33. Does the company know the rate of return on its investments?	______	______	______
34. Does the company know its cost of capital?	______	______	______

Long-Range Planning

35. Does the company have a long-range plan relative to its cash requirements, including goals for liquidity, sources, and amount of debt and equity capital?	______	______	______

Exhibit 9-2

Sample Engagement Letter

Foley and Monte, CPAs
20 Center Street
Sunnyville, California 11300

Mr. Robert Johnson, President
Johnson Products Co.
1245 45th Street
Anytown, USA

Dear Mr. Johnson:

This letter outlines our understanding of the arrangement we made in your office yesterday about the cash management practices of Johnson Products Co.

Scope of Work and Objectives and Benefits

We will review your cash management policies, including banking practices, billing and collection policies, cash disbursements, and other related procedures.

The goal of this engagement is to develop recommendations to (*1*) maximize cash inflow, (*2*) minimize cash outflow, and (*3*) maximize the yield on idle funds. The tangible benefits of this engagement should be improved liquidity and increased profits. Intangible benefits should include a better understanding of company objectives by company personnel involved in the study.

Roles

To provide an effective framework for this engagement, both parties must have a clear understanding of their respective roles. Our role encompasses the following:

- Review the history of the company.
- Analyze the financial statements and budgets of the company and prepare appropriate ratio analyses.
- Prepare a flowchart of cash procedures.
- Prepare an organization chart or review an existing chart.
- Analyze customer and supplier lists.
- Meet with you to discuss our preliminary findings.

- Investigate problem areas identified.
- Develop our recommendations.
- Report our recommendations to you.

Your role encompasses the following:

- Provide financial records and other data that we may request.
- Make your personnel available for interviews and conferences.
- Make timely decisions on various aspects of this engagement as it progresses.
- Assist our staff in developing the goals and objectives necessary to improve the management of cash.

Our role is essentially one of investigating, evaluating, and advising. Although we exert our best effort, we offer no assurance that the company's cash position will dramatically improve. If, at any time, it becomes clear that continuing the engagement may not be cost-effective, we will discuss the situation with you.

Personnel

Jeff James of our staff will direct our activities in this engagement. We understand that Earl Murray of your management group will serve as liaison with your organization.

Schedule

We are beginning work on this engagement immediately and expect to complete it in approximately two weeks. This timetable assumes adequate cooperation by your personnel and the ready availability of information required to prepare various documents for the engagement.

Engagement Completion

We shall consider the engagement complete when we have presented and discussed our final report with you. If you wish assistance in implementing our recommendations, we would be pleased to work with you.

If, during the engagement, either of us becomes aware of facts or circumstances that would preclude a successful conclusion, either party may terminate the engagement by notifying the other party in writing.

Fees and Payments

We base our fees on time expended at our standard hourly rates. Any out-of-pocket expenses will be billed in addition to our fees. Normally we issue invoices monthly as fees and expenses are incurred. Our invoices are payable upon receipt.

Conclusion

If this letter agrees with your understanding of the services we will perform for Johnson Products Co., please sign it and return one copy to us. If any part of this letter differs from your understanding of this engagement, please notify us at once so that we can establish a proper mutual understanding. We appreciate this opportunity to serve Johnson Products Co. and look forward to a mutually rewarding association.

Sincerely,

Fred Byron, CPA
Foley and Monte, CPAs

Accepted by

Robert Johnson
President, Johnson Products Co.

Exhibit 9-3

Sample Final Report

Foley and Monte, CPAs
20 Center Street
Sunnyville, California 11300

Mr. Robert Johnson, President
Johnson Products Co.
1245 45th Street
Anytown, USA

Dear Mr. Johnson:

We have completed our study of your cash management policies and practices as set forth in our engagement letter of July 1, 19XX. Our findings and recommendations are as follows:

Billing, Credit, and Collections

Finding 1	Too many customers are paying invoices after the due date.
Recommendation	Establish incentives for prompt payment, such as early payment discounts. Clearly state payment terms on invoices.
Finding 2	Billing is generally not completed until the end of the month or later.
Recommendation	Forward shipping documents to the billing department daily. Prepare and mail invoices as soon as possible thereafter.
Finding 3	Collection problems are resolved slowly because no one in the credit and collections department has decision-making authority.
Recommendation	Assign overall responsibility for credit and collections to one person within the department.
Finding 4	Credit and collection policies are not in writing. Therefore, personnel have no guidelines to follow and are ineffective and inconsistent in their dealings with customers.
Recommendation	Have the credit and collections manager develop and maintain a credit and collections policy manual.

Branch-Office Bank Accounts

Finding 1 — Deposits to the two branch-office bank accounts are not made on a daily basis. When deposits are made, the home office may wait days or even weeks before being informed about the deposit amounts.

Recommendation — Correct these delays immediately. Cash transfers may be effected by depository transfer checks.

Finding 2 — Branch-office managers are authorized to write checks on the branch-office bank accounts to pay for some items.

Recommendation — Cash procedures can be improved if branch-office bank accounts are used as depository accounts only, with the home office handling all disbursements. The branch offices can maintain small imprest accounts to pay limited expenses.

Accounts Payable, Purchasing, Inventory, and Disbursements

Finding 1 — The accounts payable department frequently pays vendor statements.

Recommendation — Pay only vendor invoices. Statements are not requests for payment.

Finding 2 — Purchasing procedures are frequently ignored and purchase orders are prepared after purchases have been made.

Recommendation — The purpose of a purchase order is to authorize a purchase. Therefore, have purchase orders prepared before purchases are made, as required by established policy.

Finding 3 — Early payment discounts are sometimes lost because of insufficient cash balances; in other cases, vendors' invoices are paid before they are due to assure earning purchase discounts.

Recommendation — Pay invoices in sufficient time to earn purchase discounts but not earlier than necessary.

Finding 4 — Many requests for vendor payment approval are not followed up with copies of purchase orders and bills of lading.

Recommendation — Improve documentation, including ensuring that receiving information is sufficient, to support vendor payment approval.

Finding 5	Analyses of financial ratios indicate that inventory balances are higher than industry norms.
Recommendation	Balances can be lowered and inventory turnover increased by working with vendors to reduce delivery time, reducing stocks of slow-moving items, and adopting a system of economic order quantities.

Borrowing and Investments

Finding 1	There is no attempt to forecast cash flow, and borrowing always takes place at the last minute on an emergency basis.
Recommendation	Prepare forecasts and arrange borrowing in advance.
Finding 2	The company has no investment strategy for idle funds. However, this has not yet posed a problem because funds have not been available for investment.
Recommendation	If you correct the problems noted to improve your cash situation, establishing an investment strategy will become very desirable.

General Remarks

Finding 1	Funds are maintained in several bank accounts at various locations.
Recommendation	Have one person who is responsible for cash management consolidate accounts and establish a system for combining account information. Consider converting the general bank account to a sweep account, from which the bank sweeps excess funds over a base amount into an investment account on a daily basis.
Finding 2	Deposits at the home and branch offices are often delayed until checks are recorded in the cash receipts journal.
Recommendation	Make deposits daily, recording checks from deposit slips.

Finding 3	Average daily checking account balances exceed $17,000, which is much too high. Exact daily balances are not readily available, indicating these funds are not used effectively for payments to earn maximum purchase discounts or for maximum investments.
Recommendation	Develop a cash management information system to provide daily balances and the estimated amount of float.
Finding 4	The computerized aged accounts receivable system is inadequate for the company's current needs.
Recommendation	Consider purchasing software that can handle the company's volume of business.
Finding 5	Some of the employees who handle cash receipts also post the accounts receivable and general ledger records.
Recommendation	Separate these duties.

A potential savings could be achieved if these recommendations are adopted based on the selected financial information presented in schedule 1 and on the assumptions presented in schedule 2. This report and the accompanying schedules are prepared for management's use only.

Schedule 1

Selected Financial Information
Johnson Products Co.
For Internal Use Only

Selected Balance Sheet Accounts	
Cash	$ 25,000
Receivables	400,000
Inventory	200,000
Fixed assets	175,000
Accounts payable	(75,000)
Revolving line of credit	400,000
Long-term liabilities	(25,000)
Equity accounts	300,000
Selected Operating Data	
Revenues	$1,500,000
Costs of revenues	900,000
	600,000
General and administrative costs	525,000
	75,000
Income taxes	25,000
NET	$ 50,000

Ratios*

Average collection period	97 days
Outstanding accounts receivable as a percentage of total revenue	27%
Average balance per customer	$1,500
Inventory turnover	4.5
Current assets to current liabilities	1.3 to 1
Quick ratio	5.7 to 1
Current liabilities to tangible net worth	1.6 to 1
Return on equity	16.7%
Inventory to current assets	.32 to 1
Total debt to tangible net worth	1.7 to 1
Net profit on sales	3.33%

Other Statistics

Number of customers	1,000
Interest rates on revolving line of credit	12%
Payment terms	N 30 EOM**

* The practitioner may wish to show a comparison with industry averages.

**Net thirty days end of month.

Schedule 2*

Potential Savings Based on Information in Schedule 1
Johnson Products Co.
For Internal Use Only

	Increase in Available Funds
Billing, Credit, and Collection	
Offering customers a purchase discount of 1 percent for payment within ten days of invoice date is expected to reduce the collection period to ninety days, assuming one-third of the customers take advantage of the discount terms.	$ 29,000**
Accelerating billing procedures would reduce the collection period another nine days.	37,000
Improving credit and collection policies may reduce the collection period another sixteen days.	52,000
To achieve conformity with the final report, the practitioner completes recommendations as above for the following categories:	
Branch-Office Bank Accounts	10,000
Accounts Payable, Purchasing, Inventory, and Disbursements	21,000
Borrowing and Investments	75,000
General	16,000
Total Increase in Funds	$240,000
Savings at 12 Percent Rate on Line of Credit	$ 28,800

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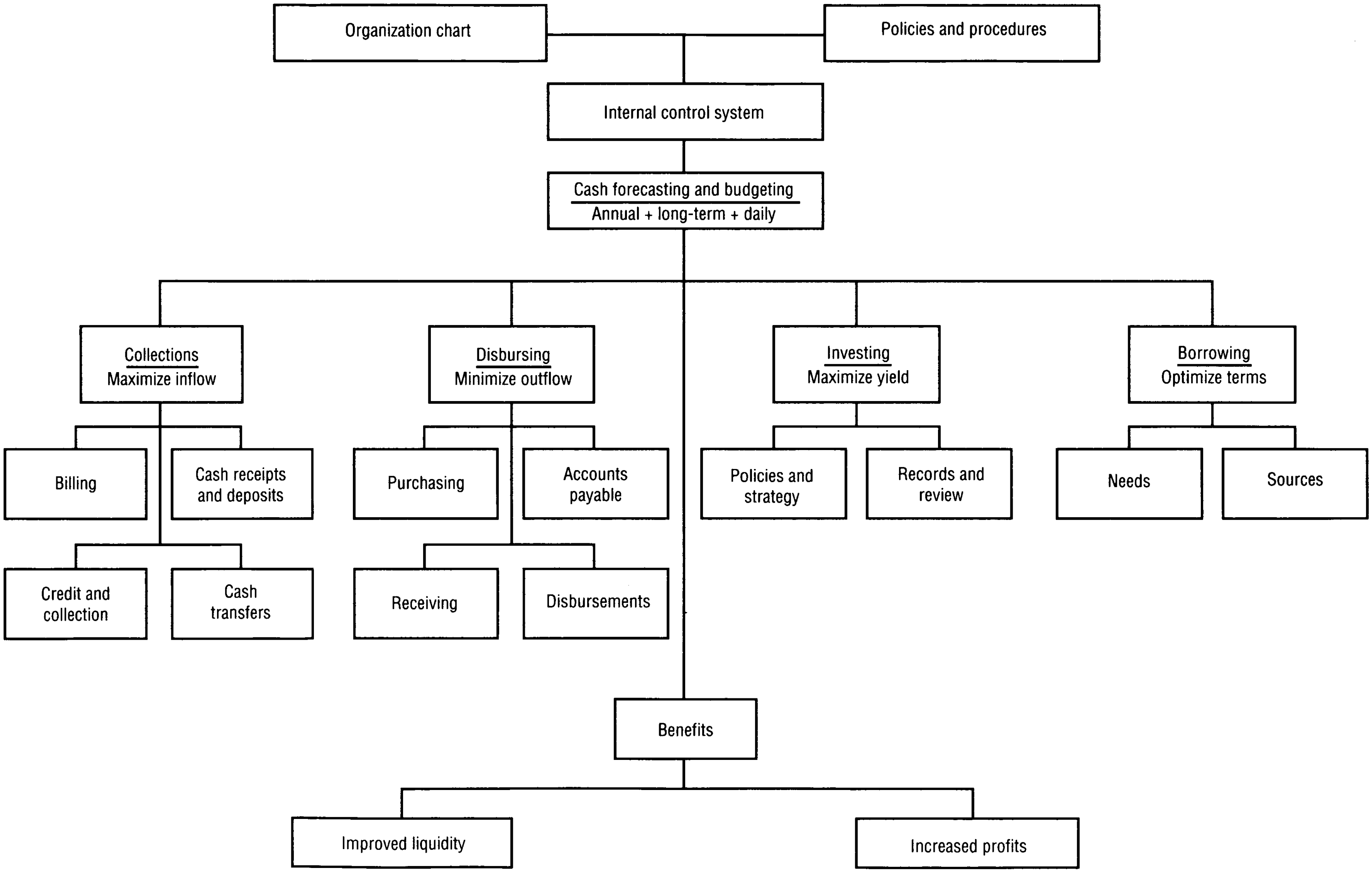
*Data in this schedule is illustrative and not based on particular information presented in the case study.

**Net of the 1 percent discount taken by the customer.

Exhibit 9-4

Cash Management Chart



This cash management chart is a graphic illustration of the interrelationship among the various elements of a cash management system, as described in this practice aid. Review of the organization chart, policies, and procedures and the internal control system is covered in "Information Gathering and Review," and cash projections are discussed in the cash investment section of "Engagement Approach." The balances of the flowchart relate to goals and benefits, which are emphasized in "Scope of This Practice Aid."

BIBLIOGRAPHY

Beehler, Paul J. *Contemporary Cash Management.* 2d ed. New York: John Wiley & Sons, 1983.

Carmichael, D. R., W. J. Gole, D. Pallais, and H. S. Schechter. *Guide to Small Business Consulting Engagements.* Ft. Worth, Texas: Practitioners Publishing Co., 1988.

Donoghue, William E. *The Cash Management Manual.* Holliston, Mass.: P & S Publications, 1977.

Fabozzi, Frank. *Corporate Cash Management: Techniques and Analysis.* Homewood, Ill.: Dow Jones-Irwin, 1984.

Garbutt, Douglas. *How to Budget and Control Cash.* Brookfield, Vt.: Gower Publishing Co., 1985.

Glau, Gregory R. *Controlling Your Cash Flow With 1-2-3 on Symphony.* Homewood, Ill.: Dow Jones-Irwin, 1986.

Globecon Group. *Cash Management and the Payments System.* Morristown, N.J.: Financial Executives Research Foundation, 1986.

Goldstein, Harvey A. *Up Your Cash Flow.* Los Angeles: Granville Publications, 1986.

Homonoff, Richard, and David Wiley Mullins, Jr. *Cash Management.* London: D.C. Heath, 1975.

Hunt, Alfred M. *Corporate Cash Management.* New York: AMACOM, 1978.

Kallberg, Jarl G., and Kenneth L. Perkinson. *Current Asset Management.* New York: John Wiley & Sons, 1984.

King, Alfred M. *Increasing the Productivity of Company Cash.* Englewood Cliffs, N.J.: Prentice-Hall, 1969.

Lehmbeck, Richard D. *Successful Cash Management in Your Business.* New York: John Wiley & Sons, 1984.

Peterson, Edward. *Cash Management.* London: Wadsworth, 1984.

Sinn, Gerald R. *Cash Operations Management: Profits From Within.* New York: Petrocelli Books, 1980.

Slater, S. D. *The Strategy of Cash.* New York: John Wiley & Sons, 1974.

Vanderwide, James H. *Managing Corporate Liquidity.* New York: John Wiley & Sons, 1985.

10/100 FINANCIAL RATIO ANALYSIS

CONTENTS

10/100 FINANCIAL RATIO ANALYSIS

10/105 SCOPE OF THIS PRACTICE AID

.01 The purpose of this practice aid is to illustrate the use of financial ratio analysis techniques in a comparative analysis of a client organization with other appropriate organizations. The financial ratio analysis techniques described in this practice aid can be useful in many different types of client engagements, but such other uses are not addressed directly in this practice aid. The intent is to provide practitioners with a document that they can draw upon in diverse engagement situations by focusing on one situation that is representative of the use of financial ratio analysis in consulting services practice.

.02 The financial ratio analysis techniques are exemplified in the illustrative engagement for the Remlap Company, a fictitious manufacturing concern, which retains a CPA consulting firm to assist in the preparation of a loan package. Part of the loan package requires historical and comparative ratio analyses. The ratios selected for use in the illustration are interpreted in the appendices. In addition to the financial ratios used in the illustration, there are others that may be useful to the practitioner.

.03 A financial ratio analysis engagement is any consulting services study or project undertaken to assist a client in evaluating past, current, and future performance by ratio analysis and in interpreting any set of financial facts and circumstances. The ratios selected for presentation in this practice aid represent only those ratios commonly used in credit or comparative[1] analysis.

10/110 TYPICAL ENGAGEMENT SITUATIONS

.01 Financial ratio analysis engagements may be suggested by either a client or a practitioner. Very often, these engagements result from consultations in which a practitioner recognizes that further analysis or study is needed to achieve the client's objectives. Historical or comparative financial analysis may be beneficial in the following typical engagement situations:

- Financial ratio analysis can support a client's request for a bank loan. Depending on the nature of the loan, the bank's credit department will probably perform a financial ratio analysis. However, the practitioner may complete an analysis for the client before making the loan request to provide an indication of the bank's likely reaction and to suggest issues that may be raised by the loan officer.

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[1] As used in this practice aid, the term *comparative analysis* refers to the comparison of data about the client company with data from similar companies or about the industry. The industry data may be obtained from sources listed in appendix 10/A.

- Specific measures of performance can help a client evaluate past performance and possibly set objectives for future performance.
- Analysis can help a client evaluate its financial performance in relation to the industry's performance as a whole.
- Analysis can assist a client in determining whether or not to extend credit to a customer.
- Analysis can assist a client in evaluating a proposed acquisition by determining the financial strengths and weaknesses of the company to be acquired.
- Historical financial ratio analysis can be used as an effective preliminary step in preparing a budget or in making a forecast.
- Financial ratio analysis can be used as an initial indicator to determine if there are problems in aging accounts receivable, inventory, and accounts payable.
- Analysis can assist in the valuation of a company under the discounted cash flow method.
- Analysis can assist in comparing operations or divisions within a company to evaluate performance or to allocate capital resources.

.02 The use of a financial ratio checklist for all audited or reviewed financial statements and in selected compilation engagements can be helpful. The findings from the checklist can be included in a management letter and reviewed with the client to determine whether further action is required.

10/115 ENGAGEMENT ACCEPTANCE CONSIDERATIONS

.01 Financial ratio analysis engagements deal with important considerations that can be critical to a client's ultimate financial decisions. A client may request assistance if management or staff lack the knowledge or time to perform such an analysis. The client may also want the practitioner to serve as a sounding board.

.02 In discussing the engagement with the client, the practitioner needs to effectively communicate to the client the considerations involved, the objectives to be achieved, the assumptions to be used, and the specific roles of the client's personnel and the practitioner. Of special importance is the relationship of the assumptions to the conclusions or recommendations. Both client and practitioner need to agree that conclusions or recommendations will be based on a set of assumptions or facts at a particular time. Any change in these assumptions, facts, or time frame may have a significant impact on the results.

.03 Another important consideration is the approach to be taken in the engagement. Financial ratio analysis can involve many sophisticated methods and techniques that may enhance the recommendations or conclusions. However, if the approach used cannot be effectively explained to and understood by a client, the value of the engagement may be diminished. Simply put, the practitioner needs to be careful to select an approach that is appropriate in the circumstances.

.04 Before accepting a specific engagement, the practitioner considers his own level of knowledge as well as the knowledge obtainable through study or other resources.

.05 Financial ratio analysis, as a quantitative approach, may appear to be easily learned and applied, but pitfalls such as the following are to be avoided:

- If historical analysis covers an insufficient number of years, the practitioner may misinterpret trends and current performance. For example, if the analysis covers only a two-year period in which substantial capital investments were made, any ratio using total assets or net income will be affected by the capital investment.

- Failing to use an average or weighted average when applicable can distort ratios. For example, if the average accounts receivable balance is $300,000, the ending balance $500,000, and credit sales for the year $3 million, the days sales outstanding would be thirty days, based on the average balance, as opposed to sixty days, based on the ending balance.

- Selecting an inappropriate basis for comparison can result in misleading conclusions. For example, a client may be a privately held, large-chain retailer. Using comparative information derived from single unit or small retailers may produce misleading results. A more meaningful comparative analysis might involve data about selected multiunit competitors that are public companies, which would be found be in their Securities and Exchange Commission (SEC) 10K reports.

- Most sources of comparative information do not always disclose the accounting methods used by the companies from which the figures or ratios have been compiled. Thus, considering the client's industry, the practitioner assesses the potential impact the differences in accounting methods might have on the findings of comparative analysis.

- The basis of the comparative analysis may be affected by the nature of the business, its size, geographic location, business practices, and other factors that may introduce differences between the client company and the comparable companies.

10/120 ENGAGEMENT OBJECTIVES AND CLIENT BENEFITS

.01 The objectives of an engagement involving financial ratio analysis are to (*a*) identify the appropriate facts, (*b*) determine the ratios to be studied, and (*c*) select the most appropriate comparative data.

.02 For example, the engagement objectives for the sample analysis (see appendix 10/C) in this practice aid are—

- To complete an historical and comparative financial ratio analysis of the Remlap Company.

- To prepare a narrative report identifying any positive or negative trends based on the interpretation of the financial ratios.
- To provide the findings of the analysis, including all supporting notes and assumptions.

.03 A financial ratio analysis engagement may provide the following direct benefits to clients:

- An evaluation of prior performance by comparison with the industry's performance. This assessment enables a client to identify its financial strengths and weaknesses
- The ability to set expected financial objectives based on prior performance or industry performance
- The ability to transform a difficult loan request into an attainable goal
- A decision criterion for granting credit

.04 In addition to the direct benefits, the following indirect benefits may result from a financial analysis engagement:

- A greater awareness of the interrelationship of the financial statements
- A greater understanding of the financial statements and how their analysis may lead to improved profitability or cash flow
- An ongoing means to evaluate financially a company's performance
- The gaining of useful information concerning competitors

10/125 ENGAGEMENT SCOPE

.01 To avoid misunderstandings, the practitioner needs to be precise in defining the scope of an engagement. The practitioner clearly states the extent of the analysis, identifies the work to be performed by a client or other personnel, and specifies any constraints or limitations on resources or alternatives. For example, a company may have several divisions, but calculating each ratio for each division may not be cost effective. In addition, the practitioner makes clear when the engagement is to be considered concluded and might also include information regarding follow-up engagements. A sample engagement letter is provided in appendix 10/D.

.02 In the illustrative engagement provided in this practice aid, the scope involves a four-year historical and comparative financial ratio analysis. The ratios used include those published by sources of comparative information and those commonly used for credit analysis. To select the sources of comparative data, the client company must find the closest match with its industry's Standard Industry Classification (SIC) code. Client personnel provide average balances for specified accounts. The practitioner comments on the historical trends and on the comparability of each ratio and makes appropriate recommendations.

10/130 ENGAGEMENT APPROACH

.01 To select an appropriate approach to the engagement, the practitioner needs to decide—

- Whether the analysis should emphasize liquidity ratios or profitability ratios.
- Which information is most comparable with that of the client's business.
- What period of time the analysis should cover.

.02 Since various approaches are possible, the practitioner and client need to agree on the approach to be used. If the practitioner does not have an adequate understanding of the client's business and of the objectives of the engagement, the wrong approach may be selected.

.03 The steps in a financial ratio analysis engagement are divided into two categories: preparation and analysis.

Preparation

.04 The following steps are part of the preparation:

- Meet with client to identify objectives and key ratios.
- Obtain required financial statements and explanations.
- Determine whether a formal, written report is required and the nature and extent of its content.
- With the client's assistance, determine the comparative data to be used. (See appendix 10/A for suggested sources of comparative data.)

Analysis

.05 Analysis involves the following steps:

- Select the specific ratios to be used. (Appendix 10/B provides a listing of common ratios and their formulas and interpretations.)
- Determine the data needed for calculating ratios.
- Determine the data missing from the comparable sources and provide alternative means to develop these data. For example, if the amount of working capital is an important comparative figure but the comparable source gives only balance sheet amounts expressed in percentages, total asset dollars, and number of reporting sources, the practitioner can determine the amount of working capital by calculating the average total assets and comparing the percentages of current assets and current liabilities to the average assets.

- Develop work papers to spread appropriate data so that it is easier to calculate and interpret the ratios.
- Calculate client ratios.
- Reconcile accounting differences between the client and comparable sources of information. These differences may be in accounting methods, ages of assets, or financing techniques.
- Compare the client's ratios to the comparative ratio and, if appropriate, indicate the possible causes of differences.
- If appropriate, recommend possible action the client may take to improve performance. (See the sample recommendations in appendix 10/C.)

Appendix 10/D provides a description of a sample engagement approach in the sample engagement letter.

10/135 ENGAGEMENT OUTPUTS

.01 The results of a financial ratio analysis may be reported in various ways. One way is to present a summary of findings along with explanations of the calculations, approaches, assumptions, and other data and notes that clearly describe the analysis process. In some situations, recommendations based on the results of the findings may be given.

.02 The engagement output for the illustration in this technical practice aid include the following:

- A one-page summary of findings
- The historical ratios
- The comparative ratios
- Comments on the trend and interpretation of each ratio

.03 Interview notes, memos, worksheets, and other source documents not pertinent to the report generally become part of the practitioner's own files.

.04 Appendix 10/C illustrates the basic report output for the Remlap Company. In addition, the sample engagement letter in appendix 10/D describes engagement outputs.

APPENDIX 10/A

SUGGESTED SOURCES OF COMPARATIVE DATA

The following sources of information are available in the business reference collections of most public and university libraries. In addition to these sources, the sources listed in the bibliography will be helpful to practitioners.

- *Financial Ratios*

  Annual Statement Studies, Including Comparative Historical Data and Other Sources of Composite Financial Data. Philadelphia: Robert Morris Associates. Annual. **Includes a bibliography of sources of financial ratios for individual industries.**

  Cost of Doing Business—Corporations. New York: Dun and Bradstreet. Annual.

  Cost of Doing Business—Proprietorships and Partnerships. New York: Dun and Bradstreet. Annual.

  Industry Accounting Manuals. Montvale: N.J.: National Association of Accountants, 1986.

  Industry Norms and Key Business Ratios. Murray Hill, N.J.: Dun and Bradstreet Credit Services. Annual. **Covers more than 800 kinds of businesses, arranged by Standard Industrial Classification code. More detailed editions covering longer periods are available.**

  IRS Corporate Financial Ratios. Commack, N.Y.: Off-the-Shelf Publications. Annual. **Presents more than 70 financial ratios for each of over 200 industries based on an analysis of corporate tax returns.**

  Manufacturing USA: Industry Analyses, Statistics, and Leading Companies. Arsen J. Darnay, ed. Detroit: Gale Research, Inc. Annual. **Provides statistical profiles for 450 kinds of manufacturers including data on employment, production, financial ratios, and input-output rankings.**

  Statistics of Income: Corporation Income Tax Returns. Washington, D.C.: Internal Revenue Service. Annual.

- *Publicly Held Corporations*

  In addition to the annual reports and the SEC 10K reports of particular companies, information may be available in the following publications and data bases.

  Compustat. Englewood, Colo.: Standard and Poor's. (800) 525-8640; (303) 771-6510. **This data base provides financial data on publicly held corporations.**

Disclosure Database. Bethesda, Md.: Disclosure, Inc. (800) 638-8076; (301) 951-1300. **This data base provides an index to records filed from 1982 to the present with the Securities and Exchange Commission by publicly held companies.**

InvesText. Thomson Financial Networks. (800) 662-7878; (617) 345-2000. **This data base provides the full text of investment research reports from about fifty leading brokers and investment bankers. Reports from 1982 are available on approximately 11,000 corporations.**

NAARS (National Automated Accounting Research System). New York: AICPA. **This is a data base of financial statements, proxy statements, and authoritative accounting literature. The most current five years are on line. Data from 1972 to the present is available off-line.**

Standard Corporation Records. New York: Standard and Poor's. Loose-leaf service.

Standard and Poor's Stock Reports. New York: Standard and Poor's. Loose-leaf service.

Value Line Investment Survey. New York: Value Line, Inc. Weekly. **Contains analyses of specific industries.**

- *Industry and Economic Data*

Business Conditions Digest. Washington, D.C.: Bureau of Economic Analysis, U. S. Department of Commerce. Monthly.

County Business Patterns. Washington, D.C.: Bureau of the Census, U.S. Department of Commerce. Annual.

Indexes of Output Per Man-Hour, Selected Industries. Washington, D.C.: U.S. Bureau of Labor Statistics. Published irregularly.

Standard and Poor's Industry Survey. New York: Standard and Poor's. Weekly loose-leaf service with quarterly bound volumes. **Discusses industry prospects and provides statistical tables.**

Standard and Poor's Statistical Service. New York: Standard and Poor's. Monthly with cumulations. **Provides industrial and financial data.**

U.S. Industrial Outlook. Washington, D.C.: Industry and Trade Administration, U.S. Department of Commerce. Annual. **Contains basic data, current year forecasts and discussion of prospects for each industry.**

- *Business and Industry Information Sources*

Encyclopedia of Business Information Sources. Eighth edition, 1991-1992. James Woy, ed. Detroit: Gale Research, Inc., 1990.

Encyclopedia of Associations. Detroit: Gale Research, Inc. Annual. **Provides information about trade and professional organizations such as the National Restaurant Association, the National Retail Merchants Association, and the American Trucking Association. Many of these organizations publish industry surveys and other useful information.**

How to Find Information About Companies. Washington, D.C.: Washington Researchers. Annual.

Sources of Information for Industry Analysis (Baker Library Mini-List). Boston: Baker Library, Harvard Business School. Annual.

State and Local Statistics Sources. First edition, 1990-1991. M. Balachandran and S. Balachandran, eds. Detroit: Gale Research, Inc., 1990. **This source is a subject guide to statistical data on states, cities, and locales covering agriculture, business, education, energy, environment, finance, labor, law enforcement, manufacturing, public welfare, real estate, taxation, transportation, and other areas.**

Statistics Sources. Fourteenth Edition, 1991. Jacqueline Wasserman O'Brien and Steven Wasserman, eds. Detroit: Gale Research, Inc., 1990. **This source is a subject guide to data on industrial, business, social, educational, financial, and other topics. It includes listings of federal statistical telephone contacts, federal statistical data bases, and sources of unpublished data.**

Statistical Reference Index: A Selective Guide to American Statistical Publications From Sources Other Than the U.S. Government. Bethesda, Md.: Congressional Information Service, Inc. **Monthly and quarterly with annual and multiyear cumulations.**

APPENDIX 10/B

FINANCIAL RATIOS—FORMULAS AND INTERPRETATION

A ratio by itself is meaningless until it is compared to prior years' experience, projections, and industry averages, as well as to other ratios. The benefit of ratio analysis is that it provides a benchmark to measure performance, target future goals, and help identify potential problem areas. The interpretation of financial ratios given here is only one example of how these ratios may be used in this type of engagement. There are other possible interpretations of these ratios.

Liquidity Ratios

Ratio	*Formula*	*Interpretation*
current ratio	$\frac{\text{current assets}}{\text{current liabilities}}$	The extent to which current assets cover current liabilities. Attention should be paid to trends.
quick ratio	$\frac{\text{cash + cash equivalents + net receivables}}{\text{current liabilities}}$	A conservative view of creditors' protection, since inventory and prepaid items may not always be liquid. A company is usually in a good liquid position when quick assets exceed current liabilities.
working capital	current assets - current liabilities	A direct indicator of the company's ability to grow.
inventory to working capital	$\frac{\text{inventory}}{\text{working capital}}$	The percentage of working capital supporting inventory. A high percentage indicates operating problems.
current assets turnover	$\frac{\text{cost of goods sold + operating expenses + tax - noncash expenses}}{\text{current assets}}$	The number of times current assets must turn over to cover expenditures. Measures control of current assets.
inventory to current liabilities	$\frac{\text{inventory}}{\text{current liabilities}}$	The degree to which the company relies on inventory to meet its current obligations.

Profitability Ratios

Ratio	*Formula*	*Interpretation*
gross profit percentage	gross profit / net revenues	An indication of control over cost of sales and pricing policies. The ratio must be viewed in relation to the client's past performance and the industry average.
operating profit percentages	operating profit / net revenues	An indication of the company's ability to control operating expenses. The ratio should be viewed in relation to increased sales and changes in gross profit.
net income before taxes (NIBT) percentage	(income before taxes + extraordinary items) / net revenues	A more consistent basis for comparisons. It is also used in the calculation of other ratios.
net income after taxes (NIAT) percentage	net income after taxes / net revenues	A reflection of the tax impact on profitability and of the profit per dollar of sales.
return on equity*	NIAT / stockholders' equity**	A measure of the return to stockholders and of profitability. When compared to the return on assets, this ratio indicates the degree of financial leverage.
return on assets*	NIAT / total assets** or NIAT percentage x assets turnover	An indication of the earning power and effective use of all the resources of the company.

* Can be calculated by using operating income, NIBT, or earnings before interest and taxes (EBIT).

** When material transactions affecting the balance have occurred, an average balance should be used in the calculations.

Efficiency Ratios

Ratio	*Formula*	*Interpretation*
accounts receivable turnover	$\frac{\text{credit sales}}{\text{average accounts receivable}}$	The number of times it takes receivables to turn into cash per year. Attention should be paid to credit terms, billing procedures, trends, and industry average.
accounts receivable collection period	$\frac{\text{360 or 365 days}}{\text{accounts receivable turnover}}$	The average length of time from sales to cash collection.
inventory turnover	$\frac{\text{cost of goods sold}}{\text{average inventory}}$	The number of times the business liquidates its inventory over a period and an indication of whether too little or too much inventory is carried.
inventory to days in inventory	$\frac{\text{360 or 365 days}}{\text{inventory turnover}}$	The number of days it takes to sell the inventory. Used in conjunction with the accounts receivable collection period to determine the operating cycle.
operating cycle	accounts receivable collection period + days in inventory	The length of time it takes to convert inventory to cash. If the cycle increases, more permanent working capital is needed.
accounts payable turnover	$\frac{\text{(cost of goods sold - beginning inventory) + ending inventory}}{\text{average accounts payable}}$	The number of turns per period of time it takes for the company to pay its trade payable. It should be compared to credit terms.
accounts payable—days outstanding	$\frac{\text{360 or 365 days}}{\text{accounts payable turnover}}$	Same as above but expressed in number of days rather than the number of turns.
assets turnover	$\frac{\text{net revenue}}{\text{total assets}^{*}}$	The turnover rate of total assets to achieve net revenue. When viewed historically, ratio indicates the effectiveness of generating sales from assets expansion.

* When material transactions affecting the balance have occurred, an average balance should be used in the calculations.

Efficiency Ratios (*continued*)

Ratio	*Formula*	*Interpretation*
net revenue to working capital turnover	$\frac{\text{net revenue}}{\text{working capital}}$	An indication of the amount of working capital required to support sales. An increasing ratio may, for example, indicate insufficient working capital to support sales growth.
net fixed assets to stockholders' equity	$\frac{\text{net fixed assets}}{\text{stockholders' equity}^*}$	The proportion of stockholders' equity that is committed to fixed assets and is not available for operating funds. A low percentage would indicate a favorable liquid position.

Capital Structure Ratios

Ratio	*Formula*	*Interpretation*
debt to equity	$\frac{\text{total debt}}{\text{stockholders' equity}^*}$	An indication of the relation of the owners' and creditors' positions. This ratio should be compared with industry averages.
current debt to equity	$\frac{\text{current liabilities}}{\text{equity}}$	The proportion of debt to total equity that is current in maturity. A high ratio may indicate the need to restructure debt.
operating fund to current portion of long-term debt	$\frac{\text{NIAT + noncash expenses}}{\text{current portion of long-term debt}}$	An indicator of the ability of the company to meet its current payments.
times interest earned	$\frac{\text{NIBT + interest}}{\text{interest}}$	An indication of how well the company is able to cover interest from earnings. It measures the level of earnings decline to meet interest payments.
long-term debt to equity	$\frac{\text{long-term debt}}{\text{stockholders' equity}^*}$	A measure of the relationship of long-term debt to equity.

* When material transactions affecting the balance have occurred, an average balance should be used in the calculations.

APPENDIX 10/C

CASE STUDY: HISTORICAL AND COMPARATIVE FINANCIAL ANALYSES FOR THE REMLAP COMPANY

Summary of Findings

Historical Financial Ratio Analysis. The four-year financial ratio analysis discloses a substantial improvement resulting from—

- An increase in working capital, which improved the liquidity position.
- Increased profitability in absolute dollars, affected chiefly by price, cost, and volume considerations.
- Increased efficiency indicated by higher inventory and payable turnovers, a stable receivable turnover, and a substantial improvement in the debt-to-equity ratio.

Comparative Financial Ratio Analysis. Overall, Remlap reflects a stronger financial position than the comparative. The following areas exemplify this strength:

- Remlap shows a stronger liquidity position.
- The comparative shows a higher gross profit percentage, but Remlap's operating profit and net income before taxes percentage are higher.
- Except for the accounts receivable turnover, Remlap's efficiency ratios are better.

Recommendations[1]

The following are recommendations involving performance considerations for The Remlap Company:

- Operating expenses have increased as a percentage of sales, from 12.8 percent in 19XV to 15.5 percent in 19XY. Therefore, it is recommended that a detailed analysis of all operating expenses be conducted to determine those expenses that might be reduced. In addition, procedures should be established to control and evaluate operating expenses on an ongoing basis.

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[1] The practitioner may issue a letter to the client concerning various recommendations based upon the financial ratio analysis findings and discussions held with the client. In cases in which the financial ratio report is to be read or analyzed by someone other than the client, the practitioner may wish to place the recommendations in a separate document.

- The comparative shows a shorter accounts receivable period of five days. Thus, it is recommended that The Remlap Company's credit and collection policies and procedures be reviewed to determine whether collections can be accelerated.

- It is recommended that, starting with 19XZ, The Remlap Company develop annual projected ratios as shown in this analysis, to be used as financial objectives and as measures of current performance.

Financial Statements and Comparative Analyses

The financial statements and comparative analyses on which the findings and recommendations are based are provided in exhibits 10C-1.1 through 10C-2.2.

Exhibit 10C-1

The Remlap Company
Balance Sheet
As of September 30

	19XU	*19XV*	*19XW*	*19XY*
Assets				
Current assets				
Cash and equivalents	$ 63,075	$ 379,331	$ 307,557	$ 697,227
Accounts and notes receivable	435,262	771,891	944,735	1,018,729
Inventory	271,644	327,912	363,882	277,039
Prepaid expenses	760	8,405	47,783	8,340
Total current assets	770,741	1,487,539	1,663,957	2,001,335
Net fixed assets	81,012	127,251	196,223	229,896
Intangibles	—	—	—	—
Other assets	2,212	98,208	55,624	42,150
Total assets	$853,965	$1,712,998	$1,915,804	$2,273,381
Liabilities and net worth				
Current liabilities				
Notes payable	$ —	$ —	$ —	$ —
Current portion of long-term debt	—	160,092	10,091	160,091
Accounts payable	270,444	503,737	396,954	431,065
Accrued expenses	143,106	359,040	318,790	370,350
Other current liabilities	—	—	—	—
Total current liabilities	413,550	1,022,869	725,835	961,506
Long-term liabilities and deferred credits	300,000	180,185	430,195	272,605
Stockholders' equity	140,415	509,944	759,774	1,039,270
Total liabilities and net worth	$ 853,965	$1,712,998	$1,915,804	$2,273,381

Exhibit 10C-2

The Remlap Company
Condensed Statement of Income
For the Period Ending September 30

	19XU	*19XV*	*19XW*	*19XY* 2
Net sales	$3,223,205	$4,089,662	$5,281,555	$6,298,020
Cost of sales	2,619,746	3,107,854	4,027,230	4,736,603
	603,459	981,808	1,254,325	1,561,417
Operating expenses	346,859	525,164	738,146	975,542
Operating income	256,600	456,644	516,179	585,875
Other (expense) income	(53,285)	(32,745)	(2,163)	(26,760)
Income before taxes	203,315	423,899	514,016	559,115
Taxes	—	149,360	208,526	233,438
Net income	$ 203,315	$ 274,539	$ 305,490	$ 325,677
Depreciation and amortization	$ 32,624	$ 40,867	$ 69,910	$ 103,877

Exhibit 10C-3

The Comparative Balance Sheet
As of September 30

	19XU	*19XV*	*19XW*	*19XY*
Assets				
Current assets				
Cash and equivalents	$ 209,236	$ 234,840	$ 215,004	$ 302,339
Accounts and notes receivable	859,473	991,915	1,056,160	1,360,530
Inventory	746,808	799,140	916,596	1,153,931
Prepaid expenses	45,066	56,080	52,808	80,624
Total current assets	1,860,583	2,081,975	2,240,568	2,897,424
Net fixed assets	1,123,430	1,184,690	1,278,708	1,788,845
Intangibles	32,190	38,550	33,948	40,313
Other assets	202,797	199,785	218,776	312,418
Total assets	$3,219,000	$3,505,000	$3,772,000	$5,039,000
Liabilities and net worth				
Current liabilities				
Notes payable	$ 295,847	$ 276,900	$ 309,304	$ 388,003
Current portion of long-term debt	141,636	157,725	173,512	231,794
Accounts payable	572,982	613,375	686,504	866,708
Accrued expenses	209,236	238,340	245,180	302,340
Other current liabilities	122,322	115,660	158,424	161,248
Total current liabilities	1,342,023	1,402,000	1,572,924	1,950,093
Long-term liabilities and deferred credits	644,100	708,010	746,856	1,123,697
Stockholders' equity	1,232,877	1,394,990	1,452,220	1,965,210
Total liabilities and net worth	$3,219,000	$3,505,000	$3,772,000	$5,039,000

Exhibit 10C-4

The Comparative Condensed Statement of Income
For the Period Ending September 30

	19XU	*19XV*	*19XW*	*19XY*
Net sales	$5,865,000	$6,552,000	$7,023,000	$9,121,000
Cost of sales	4,363,560	4,855,032	5,211,066	6,795,145
	1,501,440	1,696,968	1,811,934	2,325,855
Operating expenses	1,167,135	1,310,400	1,383,531	1,869,805
Operating income	334,305	386,568	428,403	456,050
Other (expense) income	(70,380)	(58,968)	(105,345)	(145,936)
Income before taxes	$ 263,925	$ 327,600	$ 323,058	$ 310,114
Depreciation and amortization	$ 158,355	$ 176,904	$ 182,598	$ 264,509

Note: No report is required on unaudited condensed financial statements because they are deemed to be "incidental financial data included in management advisory services reports to support recommendations to a client" (see section 91.07 of the AICPA Rules of Conduct).

Exhibit 10C-5

Ratio Analysis for the Remlap Company
For the Years Ending September 30

	19XU	*19XV*	*19XW*	*19XY*
Liquidity ratios				
Current ratio	1.86	1.45	2.29	2.08
Quick ratio	1.21	1.13	1.79	1.79
Working capital	$357,191	$464,670	$938,122	$1,039,829
Inventory to working capital	76.05%	70.56%	38.79%	26.64%
Current assets turnover	3.87	2.54	2.98	2.93
Inventory to current liabilities	65.68%	32.05%	50.13%	28.81%
Profitability ratios				
Gross profit	18.7%	24.0%	22.8%	24.8%
Operating profit	8.0%	11.2%	9.8%	9.3%
Net income before taxes	6.3%	10.3%	9.8%	8.8%
Return on equity*	144.8%	54.2%	33.4%	31.3%
Return on assets*	23.8%	24.7%	26.8%	24.5%
Efficiency ratios				
Accounts receivable turnover	7.01	6.77	6.15	6.41
Accounts receivable days outstanding	51	53	58	56
Inventory turnover	12.13	10.37	11.79	14.78
Accounts payable days in inventory	30	35	31	24
Operating cycle (days)	81	88	89	80
Accounts payable turnover	9.45	8.17	9.14	11.23
Days outstanding	38	44	40	32
Assets turnover (per year)	3.77	2.38	2.76	2.77
Net revenue to working capital turnover	9.02	8.80	5.63	6.05
Capital structure ratios				
Debt to equity	5.08	2.36	1.52	1.19
Current debt to equity	2.94	2.00	.95	.92
Operating funds to current portion of long-term debt	—	1.97	37.20	2.68
Times interest earned	5.11	12.65	9.40	8.88

* Based on net income before taxes.

Note: Not all the defined ratios are used in this illustration.

Exhibit 10C-6

Ratio Analysis of the Comparative
For the Years Ending September 30

	19XU	*19XV*	*19XW*	*19XY*
Liquidity ratios				
Current ratio	1.38	1.48	1.42	1.48
Quick ratio	.83	.91	.84	.89
Working capital	$518,560	$679,975	$667,644	$947,331
Inventory to working capital	144%	117%	137%	121%
Current assets turnover	2.89	2.87	2.86	2.90
Inventory to current liabilities	55.61%	56.99%	58.27%	59.19%
Profitability ratios				
Gross profit	25.6%	25.9%	25.8%	25.5%
Operating profit	5.7%	5.9%	6.1%	5.0%
Net income before taxes	4.5%	5.0%	4.6%	3.4%
Return on equity*	21.4%	23.5%	22.2%	15.7%
Return on assets*	8.2%	9.3%	8.6%	6.1%
Efficiency ratios				
Accounts receivable turnover	6.93	7.08	6.86	7.54
Accounts receivable days outstanding	52	51	52	48
Inventory turnover	5.97	6.28	6.07	6.56
Accounts payable days in inventory	60	57	59	55
Operating cycle (days)	112	108	111	103
Accounts payable turnover	8.01	8.27	8.20	9.05
Days outstanding	45	44	44	40
Assets turnover (per year)	1.82	1.86	1.86	1.81
Net revenue to working capital turnover	11.3	9.63	10.52	9.62
Capital structure ratios				
Debt to equity	1.61	1.51	1.60	1.57
Current debt to equity	1.09	1.00	4.08	.99
Operating funds to current portion of long-term debt	2.98	3.19	2.91	2.48
Times interest earned	5.00	4.60	3.70	2.40

* Based on net income before taxes.

Note: Not all the defined ratios are used in this illustration.

Notes and Comments[1] to the Historical and Financial Analyses of The Remlap Company

Ratios that involve turnover calculations are based on beginning and year-end balances. Since these balances may not reflect the actual month-to-month activity, the resulting ratio may not be representative of the actual situation. The true benefit of the analysis is that it allows the trend over several years to be viewed and measured against the comparatives. The comparatives are calculated in a similar manner.

Historical Financial Analysis

Current ratio. The current ratio improved by more than 22 percent, from 1.86 in 19XU, to 2.08 in 19XY.

Quick ratio. The quick ratio increased from 1.21 in 19XU to 1.79 in 19XY, indicating a stronger liquid position.

Working capital. Working capital increased by $682,638 over the four-year period and has kept pace with the sales growth.

Inventory to working capital. The percentage of working capital supporting inventory decreased from 76.05 percent in 19XU to 26.64 percent in 19XY, indicating a substantial decrease in reliance on unsold inventory to meet current obligations.

Current assets turnover. The stabilization of the current assets turnover from 19XV through 19XY indicates that management has reasonable controls over the employment of current assets.

Inventory to current liabilities. The percentage of inventory supporting current obligations decreased from 65.68 percent in 19XU to 28.81 percent in 19XY, indicating an increase in quick assets supporting current obligations.

Gross profit. The gross profit percentage has increased 6.1 percentage points since 19XU, while the operating profit has decreased from 11.2 percent in 19XV to 9.3 percent in 19XY, indicating that operating expenses in real dollars increased to support sales.

Net income before taxes. The percentage of net income before taxes decreased from 10.3 percent in 19XV to 8.8 percent in 19XY, resulting from an increase in operating expenses.

Return on equity. The return on equity shows a slight decrease from 33.4 percent in 19XW to 31.3 percent in 19XY. The higher return on equity for 19XU and 19XV reflected a roughly equivalent net income after taxes achieved from a lower equity base.

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[1] This practice aid focuses on financial factors relevant to the client and the comparative. Other nonfinancial factors are also important, such as rental of equipment, warehouse rental, and the like.

Return on assets. The return on assets increased in 19XW, from 23.8 percent to 26.8 percent, whereas it decreased in 19XY to 24.5 percent. The decrease most probably resulted from the asset base increasing at a faster rate than the profits.

Accounts receivable turnover and days outstanding. The receivable turnover and days outstanding remained relatively constant, reflecting effective credit and collection policies.

Inventory. The inventory turnover improved from 12.13 times in 19XU to 14.78 times in 19XY, reflecting effective management controls over inventory.

Operating cycle. The operating cycle has decreased since 19XV from eighty-eight days to eighty days, indicating an improved cash position.

Accounts payable. The accounts payable days outstanding have decreased since 19XV from thirty-eight days to thirty-two days.

Assets turnover. The effective use of assets in supporting sales has remained constant since 19XW. The high asset turnover in 19XU, 3.77 percent, is probably a result of timing differences between sales growth and investment in working capital.

Net revenue to working capital turnover. The ratio of revenue to working capital has decreased from 9.02 to 6.05, reflecting an increasing amount of working capital to support the growth in sales.

Debt to equity. The debt-to-equity ratio decreased from 5.08 in 19XU to 1.19 in 19XY, primarily because of increased profitability.

Current debt to equity. The ratio of current debt to equity decreased from 2.94 in 19XU to .92 in 19XY.

Times interest earned. The number of times interest is earned has decreased since 19XV, reflecting higher current interest rates.

Comparative Financial Analysis

Remlap's competitors are mainly privately held companies or divisions of publicly held companies. The comparative figures used are from representative companies and are deemed to be appropriate for the purpose of this analysis.

Current ratio. Remlap's current ratio has increased from 1.86 to 2.08 over the four-year period, while the comparative has remained relatively constant at 1.48.

Quick ratio. Remlap's quick ratio is higher than the comparative, 1.79 compared with .89 and shows an increase; the comparative has remained constant.

Inventory to working capital. The comparative shows a greater reliance on unsold inventory to meet current obligations than does Remlap, 121 percent compared with 26 percent.

Current assets turnover. Both Remlap and the comparative appear to demonstrate the same degree of control over the management of current assets, since the ratio of each has not changed materially.

Inventory to current liabilities. The comparative shows a greater reliance on inventory to support obligations than does Remlap.

Gross profit. The comparative shows a higher gross profit than does Remlap, 25.5 percent compared with 24.8 percent, indicating a better price and cost-volume situation.

Operating profit. Remlap shows a higher operating profit than the comparative, 9.3 percent compared with 5.0 percent, indicating Remlap's better controls over operating expenses.

Income before taxes. Remlap's income before taxes is higher than the comparative's, 8.8 percent compared with 3.4 percent, reflecting Remlap's better controls over operating expenses and lower debt structure possibly due to lower interest costs.

Return on equity. Remlap's return on equity is higher than the comparative's, 31.3 percent compared with 15.7 percent, but both reflect a decreasing trend.

Return on assets. Remlap shows a higher return on assets than the comparative, 24.5 percent compared with 6.1 percent. Remlap's return increased in 19XY; the comparative's return decreased.

Accounts receivable. The comparative shows a more effective collection of receivables, averaging approximately fifty days outstanding compared with an average of fifty-five days outstanding for Remlap.

Inventory turnover. Remlap shows a more effective control of inventory by turning over inventory approximately twice as fast as the comparative does.

Operating cycle. Remlap is able to convert inventory into cash in an average of 84 days; this contrasts with 108 days for the comparative.

Accounts payable turnover and days outstanding. Remlap keeps its suppliers more current than the comparative does, thirty-two days compared with forty days.

Assets turnover. Remlap turns over its assets quicker with 2.77 turnovers per year in supporting sales than the comparative does with 1.81 turnovers per year. However, both appear to be maintaining a constant assets base to support sales.

Net revenue to working capital. Remlap's ratio of revenue to working capital has been decreasing, from 9.02 in 19XU to 6.05 in 19XY, while the comparative has remained relatively constant, indicating that Remlap is in a stronger working capital position.

Debt to equity. Remlap has decreased its debt-to-equity ratio from 5.08 in 19XU to 1.19 in 19XY, while the comparative debt-to-equity structure has remained unchanged.

Current debt-to-equity. Both Remlap and the comparative show a decreasing ratio of current debt-to-equity, indicating stability in the total debt structure.

Times interest earned. Both Remlap and the comparative show a decrease in times interest earned.

APPENDIX 10/D

SAMPLE ENGAGEMENT LETTER

Many sections of this practice aid contain examples of language that could be used in a proposal or a letter to describe the engagement. They refer to a financial ratio analysis engagement. The following outline of a complete engagement letter uses, when appropriate, the language from this practice aid. However, there is no standard format. In practice, proposals and engagement letters differ according to the circumstances of the specific engagement.

Introduction and Background

(As appropriate for the engagement.)

Engagement Objectives

The objectives of this engagement are to—

1. Conduct an historical and comparative financial ratio analysis of your firm.

2. Develop a report indicating any positive or negative trends based on the interpretation of financial ratios.

3. Provide the findings of the analysis, inclusive of all supporting notes and assumptions.

Engagement Scope

This engagement will provide a four-year historical and comparative financial ratio analysis. The ratios will include those ratios published by the comparative source and those ratios commonly used for credit analysis (see attachment). The comparative source will be the closest match among companies in your industry's SIC code.

Your personnel will provide average balances for specified accounts. We will comment on the historical trends and comparative nature of each ratio and make recommendations for improvement, if appropriate.

We will conclude the engagement with a presentation of a report and discussion of its contents.

Engagement Approach

We will conduct this financial ratio analysis in two phases, a preparation phase and an analytical phase. Steps in the preparation phase include—

- Meeting with appropriate management personnel to identify objectives and key ratios.
- Reviewing required financial statements.
- Determining the comparative to be used (with management assistance).

Steps in the analytical phase include—

- Selecting the specific ratios to be used.
- Determining the data needed for calculating ratios.
- Determining the missing comparative data and providing alternative means to develop the missing data.
- Calculating the firm's ratios.
- Reconciling accounting differences between your firm's financial statements and those of the comparative.
- Comparing your firm's ratios to the comparative ratios, indicating possible causes of differences.
- Recommending, if appropriate, possible corrective action that your firm may take to improve performance.

Engagement Output

The output of this engagement will include—

- A one-page summary of findings.
- The historical ratios.
- The comparative ratios.
- Interpretation of each ratio and comments on its trend.

If appropriate, we will make recommendations based upon the findings.

Project Staffing and Schedule

(As appropriate for the engagement.)

Fees and Billing Arrangements

(As appropriate for the engagement.)

Attachment to Sample Engagement Letter: Suggested Ratios for Analysis

- Current ratio
- Quick ratio
- Working capital
- Inventory to working capital
- Current asset turnover
- Inventory to current assets
- Gross profit
- Operating profit
- Income before taxes
- Return on equity
- Return on assets
- Accounts receivable turnover
- Accounts receivable days outstanding
- Inventory turnover
- Days in inventory
- Operating cycle
- Accounts payable turnover
- Accounts payable days outstanding
- Asset turnover
- Net revenue to working capital turnover
- Debt to equity
- Current debt to equity
- Operating funds to current portion of long-term debt
- Times interest earned

BIBLIOGRAPHY

Bernstein, Leopold A. *Analysis of Financial Statements.* Homewood, Ill.: Dow Jones-Irwin, 1990.

Horrigan, James O., and Richard P. Brief, eds. *Financial Ratio Analysis: An Historical Perspective.* new ed. New York: Ayer Co., 1978.

Lipkin, Lawrence. *Accountants Handbook of Formulas and Tables.* 3rd ed. Englewood Cliffs, N.J.: Prentice-Hall, 1988.

Sanzo, Richard. *Ratio Analysis for Small Business.* Small Business Management Series no. 20. 4th ed. Washington, D.C.: Small Business Administration, 1977.

Tamari, M. *Financial Ratios: Analysis and Prediction.* London: Paul Elek, 1978.

11/100 USING BUDGETING TO PRICE SERVICES

CONTENTS

11/100 USING BUDGETING TO PRICE SERVICES

11/105 SCOPE OF THIS PRACTICE AID

.01 Professionals, such as lawyers and doctors, often do not completely understand how much their operations cost and how to price their services. They therefore frequently ask CPA practitioners to advise them on this subject. This practice aid provides practical information to practitioners who help clients determine and evaluate billing rates for time-related professional services.

.02 Engagements of this kind often include analyzing and evaluating costs, a service well suited to most practitioners. Their experience and training also provide a basis for designing a pricing model to help clients establish or evaluate a pricing system.

.03 The fact-finding and analysis described in this practice aid, as well as the time and cost budgets prepared in this type of an engagement, provide the practitioner with the information to advise the client on many profit planning issues not directly considered in this document. These issues include cost control, level of staffing and mix of staff experience and ability, and profitability by type of service. These variables, in addition to pricing, influence the profitability of a professional firm.

.04 Perhaps the most straightforward pricing model is one that uses current operating costs and the professional client's targeted profit to establish standard billing rates. This approach is illustrated in appendix 11. However, a targeted-profit approach to pricing will not be useful when the resulting billing rates are not in keeping with local competition or pricing norms for the profession. In such cases, the practitioner might help the professional client establish an alternate pricing model, such as value billing, that is not related to a targeted profit. Value billing assigns hourly rates in excess of standard rates or uses premium flat rates for services that have exceptional value to the client. The practitioner may also assist the client in reducing operating costs so that the targeted profit could be achieved with lower standard billing rates or reduced hours of effort.

.05 This practice aid does not address pricing models or techniques such as value billing or the development of billing ranges other than a standard billing rate. However, practitioners need to be prepared to apply other means of assisting the professional client in pricing services if standard billing rates determined on the basis of current costs and targeted profits are inappropriate or unacceptable.

.06 The illustrative case study in this practice aid describes a service-pricing engagement for a fictitious law firm. Practitioners can modify the work phases shown in the case study to satisfy the unique needs of different clients that provide other types of time-related services.

11/110 DEFINITIONS

.01 The following key terms are used in this practice aid.

.02 Available Billable Hours. The total number of hours in a year that are available for an individual professional to provide billable services (that is, the total number of annual hours, including base hours and projected overtime hours, reduced by projected nonbillable time, such as vacations, holidays, and time required for administrative activities, marketing, and professional education).

.03 Base Hours. Hours per year computed as standard hours per workday, assumed to be eight, multiplied by the number of potential workdays per year. In the case study, for example, the total number of workdays is 261 (365 days per year minus 52 weekends [104 days]) times 8 hours per day. Base hours are thus 2,088 hours per year. No allowance has been made for vacations and holidays.

.04 Billable Expenses. Costs normally reimbursed by clients that are directly related to provision of services (for example, travel and materials). The professional firm's policy determines which costs to invoice directly to the client and which to count as part of the firm's overhead. These expenses might include telephone calls, copying, secretarial support, supplies, and messenger services.

.05 Cost of Service. Costs associated with direct labor including base salary payroll taxes, bonuses, overtime, and fringe benefits, such as pensions, medical benefits, life insurance, and out-of-pocket professional education.

.06 Estimated Billable Hours. The total number of hours in a year that an individual professional spends providing billable services to clients. It is equal to the utilization percentage multiplied by available billable hours.

.07 Overhead. Expenses such as rent, insurance, and utilities not included in cost of service or billable expenses.

.08 Owners' Imputed Salary. The "base salary" the client establishes as the assumed compensation for each owner's professional services. This amount can be viewed as the compensation an employee would receive for comparable services.

.09 Realization Percentage. The realization percentage is derived by dividing the amount of collected fees by the billings. (The differential will be accounted for by discounts from standard billing rates and write-offs or value billing rates in excess of the standard billing rate.)

.10 Standard Billing Rate. The hourly billing rate established as the target rate for services performed.

.11 Utilization Percentage. A percentage that is derived by dividing estimated billable hours by available billable hours. This figure measures the professional client's ability to effectively control nonbillable time, both idle time and demands placed on the professional (public service, for example) that are nonbillable.

11/115 ENGAGEMENT CONSIDERATIONS

.01 A practitioner may provide a client with advice and assistance in determining professional billing rates as a result of a recommendation to the client or a client's unsolicited request. In deciding whether to recommend or undertake the engagement for either an existing or a prospective client, the practitioner may consider the following issues:

- Is the client willing to accept the formal targeted-profit percentage formula for pricing its services?
- Would the client gain insight into the economics of the firm from a pricing assistance engagement?

.02 After agreeing to accept the engagement, the practitioner needs to reach a clear understanding with the client about the service to be performed, including the scope and limitations of the engagement or consultation. In particular, the practitioner and the client need to discuss the client's goals for the new pricing strategy. It is advisable for the practitioner to outline this understanding in an engagement letter.[1]

.03 The scope of involvement can vary greatly. A service-pricing engagement may require data gathering, preliminary evaluation, and implementation of accepted recommendations, or it may involve only preparing data for client management to evaluate. The latter activity may be limited to a consultation based on the practitioner's knowledge of pricing techniques, current economic conditions, and the client's situation. The extent and nature of the practitioner's work depend on the client's sophistication and circumstances.

.04 A practitioner needs to recognize—and explain to the client—that market forces will ultimately have the strongest influence on billing rates. The market price for professional services is affected by factors such as demand, competition, and service differentiation through special expertise and above average quality of service. With this information, the practitioner calculates standard billing rates based on known costs, projected utilization of personnel, and targeted profits. Such standard billing rates can be compared to market rate ranges. Standard billing rates form a basis for comparison with billing rates made on some other basis, such as value billing.

11/120 ENGAGEMENT APPROACH

.01 A service-pricing engagement typically consists of four main phases. The phases are further broken down into steps (tasks), and the number of steps can vary, depending on the engagement. The practitioner chooses the steps that are applicable to a particular situation.

[1] For guidance on consulting services engagement understandings, see section 3/105, "Client Contact."

.02 The four phases common to most service-pricing engagements are as follows:

.03 Phase 1—Fact-Finding. The practitioner gathers data to gain a thorough understanding of the client's business, particularly the costs of client operations and income objectives. The practitioner may also ask preliminary questions to identify the factors of greatest importance to the client. This phase may be significantly abbreviated for engagements involving a client of long standing.

.04 Phase 2—Data Analysis. The practitioner analyzes the information obtained in the fact-finding phase to understand the cost and organizational structures of the client.

.05 Phase 3—Conception and Design. The practitioner develops a preliminary pricing model based on information from phases 1 and 2. The practitioner then reviews the preliminary pricing model with management and, based on their input, revises the pricing model as necessary.

.06 Phase 4—Implementation. The practitioner helps the client revise costing systems and billing methods to implement the pricing model and realize its full benefits.

.07 The following sections describe each of these phases in greater detail:

Phase 1—Fact-Finding

.08 Preliminary Questions. In gathering data, the practitioner asks the following preliminary questions:

a. What types of professional services does the client provide to its customers?

b. What financial information, including cost information, does client management receive? Is the information reliable?

c. How does the client determine billing rates at present, and how often does management review them?

.09 Relevant Factors. Since various operational, financial, and market factors affect a client's billing rates, the practitioner needs to gather information about them. Documents and data to collect include the following:

- Historical financial information, such as financial statements, budgets, and a comparison of actual results to budget projections
- Cost accounting and billing systems information
- Data on billable and available hours for each staff member

- Accounting controls information
- Profit by department or by category of service
- Break-even calculations
- Ratios in total and by specialty (for example, utilization, billing rates per hour, and pretax profit to total fee income)
- Historical pattern of rate changes
- Long-range projections and plans

.10 To understand how expenses influence billing rates, the practitioner examines the present method for accumulating service costs (such as time and expense reports) and projects the cost of services for each staff classification by totalling the following:

a. Base salary, including imputed salary for owners or partners

b. Bonuses

c. Overtime compensation

d. Payroll taxes

e. Retirement plans

f. Group insurance

g. Professional education plans

.11 The practitioner also reviews the method for prorating or allocating operating expenses between billable expenses and overhead.

.12 To understand the client's philosophy and actual practices of staffing and its effect, the practitioner reviews the availability of unassigned professional staff in general and identifies individual professionals (and their classification) who are spending time on nonbillable activities. The practitioner considers allocation of shared staff between the administration activity and different services or departments, if applicable. The issue of appropriate levels of staff may also require the practitioner's attention as part of the engagement.

.13 In addition, the effects of the business's volume, inflation, the cost of borrowing money, and the carrying cost of accounts receivable and work-in-process all require scrutiny, as does the client's policy and practice concerning progress billings.

Phase 2—Data Analysis

.14 The practitioner carefully analyzes the data gathered, beginning with information that can affect billing rates. Points to cover include the following:

- Review the present method, if any, of calculating billing rates, and obtain a sample of the current calculation.
- Determine the projected number of available billing hours per year for each professional by using the following formula:

  a + b - (c + d + e + f + g)
  a = base hours
  b = projected overtime hours
  c = vacation hours
  d = holiday hours
  e = sick leave and personal hours
  f = professional education hours
  g = administrative, marketing, and public service responsibilities stated in hours per year

- Analyze the accuracy, timeliness, and completeness of time reports, the current method for accumulating the data, and how the information contributes to formulating a fee structure.
- Determine if the method for prorating or allocating operating expenses is reasonable.
- Study the cost accounting and accounting control systems to uncover any possible weaknesses.
- Determine whether the existing ratio of pretax profit to total investment is adequate to compensate the owners for their investment and risk (see paragraphs 11/125.02 to 11/125.04 for suggestions if owner compensation is inadequate).

.15 With this supporting information, the practitioner can now ask focus2ed questions, such as the following, about the billing process and billing rates that will help in setting new rates:

- What influenced rate changes in the past?
- Does the current method of calculating billing rates accurately include all cost factors?
- How is profit added into the billing rate?
- If total estimated billable hours are compared with the total estimated number of available hours, is the estimate for billable hours realistic?

- What are the policies and procedures for invoicing hours and fees charged to a job or client?

.16 As in the first phase (fact-finding), the practitioner may prepare an interim report to client management, documenting possible weaknesses and stating preliminary conclusions.

Phase 3—Conception and Design

.17 The practitioner develops recommendations based on the results of the fact-finding and data analysis phases as well as discussions with management. Some recommendations may address areas relating to the billing process in general, such as billing policies and practices, cost accumulations, and accounting methods. For example, the client needs to segregate operating expenses between billable expenses and overhead and, with the practitioner's help, determine a uniform factor to allocate overhead proportionately by job classification, department, or service category. The client may also need to design a form to accumulate these cost components and others, such as cost of services, for use as a tool to develop a billing rate formula.

.18 The practitioner can now help the client develop a new standard billing rate. To test the accuracy of the new rate, the practitioner takes a representative sample of services recently billed and recalculates the client's old rate using the new rate. The practitioner then explains any differences this rate change may yield and discusses other issues, such as the following, with management:

- Can the client's customers bear the price increase?
- Are the new prices consistent with the marketplace?
- Is the client comfortable with the new rate?

Phase 4—Implementation

.19 After the practitioner has analyzed the economics of the client organization and developed standard billing rates based on costs and target income, the client may still need additional assistance in modifying practices and procedures to implement the new pricing system. Typically, the original engagement will have a certain level of phase 4 implementation assistance. When significant revisions to the billing system are necessary or the client lacks the necessary expertise or would otherwise benefit from assistance, the practitioner can negotiate an extension of the original engagement or a separate agreement for additional implementation services.

11/125 ENGAGEMENT REPORTING

Progress Reports

.01 Throughout the engagement, the practitioner may develop ideas and suggestions and should consider communicating them immediately to the client, orally or in writing. The end of each engagement phase is generally an appropriate time for such interim communication because the client's responses may affect succeeding engagement phases. The practitioner outlines all interim communications in the final report.

Final Report

.02 The output in a service-pricing engagement is a written or oral report that recommends procedures to implement a pricing structure.[2] These recommendations may include the following:

- Establish standard billing rates.
- Reorganize the client's firm into profit centers or cost centers.
- Revise or develop a system to appropriately categorize costs and expenses.
- Monitor costs and expenses in order to periodically renew pricing.
- Review and evaluate—

    a. Realized collections in relation to invoiced billings based on standard billing rates.
    b. Actual utilization rates in relation to expected utilization rates for staff members.

.03 The report summarizes the information communicated during the engagement. It may also state that the practitioner can provide follow-up assistance in implementing and monitoring the recommendations. The practitioner may include other observations about the client's operations in the report or a separate letter. The practitioner needs to consider documenting the conclusions and recommendations, especially if the final report is not in writing.

.04 Standard billing rates computed by using the formulas described in this practice aid are based on a targeted profit. Practitioners may not find it appropriate to recommend such rates to clients because the computed rates can be substantially higher than the client may be able to bill, considering the type of services provided, the amount of competition, and pricing norms. The practitioner's analysis of these broader pricing and profit considerations may lead to recommending strategic changes in the client's business. For example:

- Stop providing services that cannot be profitably priced.
- Add different services to realize higher billing rates and thus expand revenues.

[2] See section 3/125, "Completion."

- Establish practical compensation limits for professionals operating in certain specialties or locations.
- Develop marketing strategies to attract new clients.
- Reduce overhead and operating costs.
- Improve the utilization rate for professionals.
- Add professionals to reduce per capita overhead costs.

APPENDIX 11

CASE STUDY: DEVELOPING STANDARD BILLING RATES FOR A LAW FIRM

This case study illustrates how to develop standard billing rates. The process described will require modification to meet the needs of a particular client. The case study assumes that phases 1 and 2 (fact-finding and data analysis) have already been completed. It elaborates on the major steps suggested in phase 3 (conception and design), but does not discuss phase 4. The case study uses projected or budgeted data provided by the client, which is preferable to historical data. The practitioner, who is also assisting with the preparation of the projected data, considers the requirements of the Statement on Standards for Accountants' Services on Prospective Financial Information, *Financial Forecasts and Projections*.

Background

The fictitious law firm of Lee & Hager is a six-partner, single office, general practice with fourteen associates and four paraprofessionals. If the firm were departmentalized, the practitioner would consider computing standard billing rates on a departmental basis. This would require allocating overhead among the departments on some rational, systematic basis. The cost of service of individuals working in more than one department would also require allocation. It is also appropriate to analyze the costs of service and utilization by staff category rather than on a person-by-person basis, as is done in this case study.

Methodology

Step 1

Determine the projected available billable hours (the law firm's unit of production) for each individual in each category of activity. It may be an average for each professional group if the number of individuals in the group is large. Such items as base hours and projected overtime hours, vacation, holidays, sick leave, and professional education are calculated. Note that planned nonbillable hours are not separately analyzed in this case. This step is shown in exhibit 11-1.

Step 2

Determine the projected cost of service on the same basis as used in step 1 (by individual or category average). Include items such as base salary, bonus, overtime pay, retirement allowance, group insurance, and the actual or budgeted out-of-pocket cost of professional education (tuition, travel, per diem living expenses). See exhibit 11-2.

Step 3

Estimate total overhead costs, less amounts expected to be recovered from clients (billable expenses). Exhibit 11-3 provides an illustration of this step.

Step 4

Have the client provide information on the following critical factors (based on the client's expectations and experience):

- Utilization hours or rate, expressed either as the number of estimated billable hours or as a percentage of available billable hours (see exhibit 11-4)
- Realization rate, expressed as the ratio of projected collections to projected billings (for Lee & Hager, 83 percent)
- Target profit before taxes, after deduction of partners' imputed salaries (often based on the capital invested by the partners multiplied by a rate-of-return percentage, as shown in the numbers and calculations in exhibit 11-5)

Two scenarios are shown. The first assumes the desired income is $242,165 based on a 25-percent return on a $968,660 investment. The second assumes the desired income is $696,225 based on an 18-percent return on an investment of $3,867,917. The second scenario assumes that the partnership owns a building in which the firm's offices are located. Computer-based analysis would allow several different rate-of-return scenarios to be explored for each investment assumption.

Step 5

Calculate the following statistics, as shown in exhibit 11-5:

- *Cost of service per estimated billable hour.* Divide the total estimated cost of service for each individual by the total estimated billable hours for each individual.

- *Projected weighted overhead per estimated billable hour.* Divide the base salary for each individual by the total base salary for all personnel, and then multiply the resulting percentage by the estimated total net overhead to arrive at an estimated overhead allocable to each individual. Divide the estimated overhead allocable to each individual by the estimated billable hours for each individual to arrive at overhead per billable hour for each individual. (This calculation may also be performed by staff classification.) As an alternative, divide the estimated total net overhead by the total base salary to arrive at an overhead charge per salary dollar: Then multiply this result by the base salary for an individual to determine the overhead for that individual. Cost of service rather than base salary could have served as the allocation basis.

The cost recovery target is shown in exhibit 11-5 as the sum of the cost of service and projected overhead per estimated billable hour. Exhibit 11-6 shows the next step: Add the cost recovery target to the income target, and then divide this sum by the realization rate to obtain a computed standard billing rate. This is shown for both income target scenarios.

- *Margin per estimated billable hour.* Use the base salary for each individual divided by the total base salary for all personnel, as calculated in the above bulleted item, "Projected weighted overhead per estimated billable hour," and multiply the result against the pretax target income (from exhibit 11-5) to arrive at the target profit per individual. Divide the target profit per individual by the estimated billable hours for each individual to arrive at income target (profit) per billable hour for each individual.

- *Computed standard billing rate.* For each person or staff classification, add the cost recovery target per estimated billable hour (which is the sum of the cost of service per estimated billable hour and the projected overhead per estimated billable hour) and the income target per estimated billable hour, and then divide the sum by the projected realization rate to arrive at the new standard billing rate.

Using the data for partner E. Hager included in appendix 11 as an example, the calculation of the standard billing rate would be as follows: Add the cost of service per estimated billable hour of $56.97 to the projected weighted overhead per estimated billable hour of $47.85. To this total of $104.82, add the income target per estimated billable hour of $27.76 (scenario 2) to arrive at the $132.58 target fee per estimated billable hour: Finally divide the result of the previous calculation by Lee & Hager's projected realization rate of 83 percent[3] to arrive at E. Hager's computed standard billing rate of $159.73.

Partners differ in market demand for their expertise and in the life-style choices that determine the utilization they desire. In the example provided in exhibit 11-6, partner R. Lee has a computed standard billing rate of $266.20, which is 67 percent higher than that for E. Hager. This is a result of R. Lee's lower estimated billable hours.

Disparities in billing rates can result from partners having greater expertise or administrative and marketing time commitments. A practitioner may recommend that the client limit differences in standard billing rates between individuals within a given classification. Alternatively, the practitioner may revise the computation of standard billing rates to allocate that portion of the individual's administrative cost of service to estimated overhead. In this way, the administrative or marketing costs are spread among others to avoid disparities in individual billing rates.

Other partner circumstances may result in a lower base salary (for example, a semiretired senior partner working a reduced number of hours) or a partner with higher expertise than average having a higher salary at full utilization or equal salary at reduced utilization. (R. Lee might be an example of the latter case.)

Step 6

Prepare a projected statement of income from operations as follows (see exhibit 11-7):

- Project gross fee income at standard billing rates by multiplying estimated billable hours for each individual by the respective standard billing rates.

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[3] This realization rate is for illustration only. The rate may be higher or lower for a specific professional services business. The assumed realization rate should be based on the firm's prior experience with realization until experience with a new billing structure suggests otherwise.

- Multiply gross projected fee income at standard billing rates by the projected realization rate to arrive at net projected fee income.

- Subtract total estimated cost of service and total estimated overhead from net projected fee income to arrive at projected margin (profit) before taxes.

Exhibit 11-1

Projected Available Hours
Year Ending December 31, 19XX

	Base	Overtime	Vacation	Holidays	Sick Leave	Professional Education	Available
Partners							
E. Hager	2,088	150	160	80	40	40	1,918
R. Lee	2,088	50	160	80	40	40	1,818
J. Kinard	2,088	150	160	80	40	40	1,918
K. King	2,088	100	160	80	40	40	1,868
J. Foley	2,088	50	160	80	40	40	1,818
M. Kaplan	2,088	100	160	80	40	40	1,868
Total, partners	12,528	600	960	480	240	240	11,208
Senior associates							
D. Bryan	2,088	450	120	80	40	80	2,218
J. Cohen	2,088	325	120	80	40	128	2,045
R. Grant	2,088	300	80	80	40	80	2,108
K. Hilliard	2,088	275	160	80	40	80	2,003
M. Leone	2,088	200	120	80	40	64	1,984
D. Stone	2,088	250	120	80	40	48	2,050
Total, senior associates	12,528	1,800	720	480	240	480	12,408
Associates							
J. Abrams	2,088	250	80	80	40	80	2,058
L. Desmond	2,088	150	80	80	40	80	1,958
T. Grant	2,088	350	80	80	40	80	2,158
W. Morgan	2,088	400	80	80	40	80	2,208
P. O'Brian	2,088	275	80	80	40	80	2,083
L. Piccolo	2,088	300	80	80	40	80	2,108
V. Raeback	2,088	325	80	80	40	80	2,133
J. Smith	2,088	350	80	80	40	80	2,158
Total, associates	16,704	2,400	640	640	320	640	16,864
Paraprofessionals							
C. Bryan	2,088	200	80	80	40	40	2,048
N. Harris	2,088	300	80	80	40	40	2,148
J. Myers	2,088	150	80	80	40	40	1,998
M. Turillo	2,088	150	80	80	40	40	1,998
Total, paraprofessionals	8,352	800	320	320	160	160	8,192
Total, firm	50,112	5,600	2,640	1,920	960	1,520	48,672

Exhibit 11-2

Projected Cost of Service
Year Ending December 31, 19XX

	*Base Salary**	*Bonus*	*Overtime*	*Payroll Taxes**	*Retirement*	*Group Insurance*	*Professional Education*	*Cost of Service*
Partners								
E. Hager	$75,000	$0	$0	$3,100	$3,750	$2,400	$1,200	$85,450
R. Lee	75,000	0	0	3,100	3,750	2,400	1,200	85,450
J. Kinard	75,000	0	0	3,100	3,750	2,400	1,200	85,450
K. King	75,000	0	0	3,100	3,750	2,400	1,200	85,450
J. Foley	75,000	0	0	3,100	3,750	2,400	1,200	85,450
M. Kaplan	75,000	0	0	3,100	3,750	2,400	1,200	85,450
Total, partners	450,000	0	0	18,600	22,500	14,400	7,200	512,700
Senior associates								
D. Bryan	58,000	8,000	0	3,100	2,900	1,800	1,800	75,600
J. Cohen	57,500	8,000	0	3,100	2,875	1,800	3,000	76,275
R. Grant	64,400	9,500	0	3,100	3,220	1,800	1,800	83,820
K. Hilliard	59,800	9,000	0	3,100	2,990	1,800	1,800	78,490
M. Leone	61,600	10,500	0	3,100	3,080	1,800	1,400	81,480
D. Stone	58,700	9,000	0	3,100	2,935	1,800	1,000	76,535
Total, senior associates	360,000	54,000	0	18,600	18,000	10,800	10,800	472,200
Associates								
J. Abrams	44,000	5,500	0	3,100	2,200	1,800	1,800	58,400
L. Desmond	45,500	6,000	0	3,100	2,275	1,800	1,800	60,475
T. Grant	43,000	5,500	0	3,100	2,150	1,800	1,800	57,350
W. Morgan	49,500	7,000	0	3,100	2,475	1,800	1,800	65,675
P. O'Brian	41,000	5,000	0	3,100	2,050	1,800	1,800	54,750
L. Piccolo	43,500	5,500	0	3,100	2,175	1,800	1,800	57,875
V. Raeback	46,000	6,500	0	3,100	2,300	1,800	1,800	61,500
J. Smith	47,500	7,000	0	3,100	2,375	1,800	1,800	63,575
Total, associates	360,000	48,000	0	24,800	18,000	14,400	14,400	479,600
Paraprofessionals								
C. Bryan	20,000	2,000	2,000	2,000	1,000	1,200	800	29,000
N. Harris	20,500	2,000	3,000	2,075	1,025	1,200	800	30,600
J. Myers	22,000	2,000	1,500	2,075	1,100	1,200	800	30,675
M. Turillo	21,500	2,000	1,500	2,050	1,075	1,200	800	30,125
Total, paraprofessionals	84,000	8,000	8,000	8,200	4,200	4,800	3,200	120,400
Total, firm	$1,254,000	$110,000	$8,000	$70,200	$62,700	$44,400	$35,600	$1,584,900

* The partners' base salaries and payroll taxes are the same for purposes of illustration only. They are likely to vary in real situations.

Exhibit 11-3

Projected Overhead Expenses
Year Ending December 31, 19XX

	Gross Overhead	*Billable Expenses*	*Net Overhead*
Administrative payroll and fringe benefits	$ 282,000	$ 50,000	$ 232,000
Occupancy and maintenance	313,000		313,000
Equipment expense	104,000		104,000
Promotional expense	35,000		35,000
Entertainment of clients	75,000	40,000	35,000
Contributions	15,000		15,000
Insurance	38,000		38,000
Publications and library	43,000		43,000
Stationery, printing, and supplies	70,000		70,000
Postage	60,000	23,000	37,000
Taxes	10,000		10,000
Telephone	80,000	32,000	48,000
Travel	70,000	50,000	20,000
Firm meeting expense	20,000		20,000
Recruiting	15,000		15,000
Interest expense	24,000		24,000
Provision for doubtful accounts	69,000		69,000
Outside services	25,000		25,000
Miscellaneous	47,000		47,000
Total	$1,395,000	$195,000	$1,200,000

Exhibit 11-4

Calculation of Target Income
Year Ending December 31, 19XX

Scenario 1

Partners' investment (primarily for working capital)	$968,660
Target rate of return (based on investment, risk, and inflation)	25%
Target income	$242,165

Scenario 2

Partners' investment (for office building, furniture, and working capital)	$3,867,917
Target rate of return (based on investment, risk, and inflation)	18%
Target income	$696,225

Exhibit 11-5

Cost Recovery Target per Estimated Billable Hour
Year Ending December 31, 19XX

	Available Hours	*Estimated Billable Hours*	*Utilization % Based on Available Hours*	*Cost of Service per Estimated Billable Hour*	*Projected Overhead per Estimated Billable Hour*	*Cost Recovery Target per Estimated Billable Hour*
Partners						
E. Hager	1,918	1,500	78.2	$56.97	$47.85	$104.82
R. Lee	1,818	900	49.5	94.94	79.74	174.68
J. Kinard	1,918	1,600	83.4	53.41	44.86	98.27
K. King	1,868	1,400	74.9	61.04	51.26	112.30
J. Foley	1,818	1,100	60.5	77.68	65.25	142.93
M. Kaplan	1,868	1,300	69.6	65.73	55.21	120.94
Total, partners	11,208	7,800	69.6	65.73	55.21	120.94
Senior associates						
D. Bryan	2,218	1,900	85.7	39.79	29.21	69.00
J. Cohen	2,045	1,725	84.4	44.22	31.90	76.12
R. Grant	2,108	1,700	80.6	49.31	36.25	85.56
K. Hilliard	2,003	1,500	74.9	52.33	38.15	90.48
M. Leone	1,984	1,850	93.2	44.04	31.88	75.90
D. Stone	2,050	1,825	89.0	41.94	30.78	72.72
Total, senior associates	12,408	10,500	84.6	44.97	32.81	77.78
Associates						
J. Abrams	2,058	1,625	79.0	35.94	25.91	61.85
L. Desmond	1,958	1,500	76.6	40.32	29.03	69.35
T. Grant	2,158	1,700	78.8	33.74	24.20	57.94
W. Morgan	2,208	1,850	83.8	35.50	25.60	61.10
P. O'Brian	2,083	1,675	80.4	32.69	23.42	56.11
L. Piccolo	2,108	1,700	80.6	34.04	24.49	58.53
V. Raeback	2,133	1,650	77.4	37.27	26.68	63.95
J. Smith	2,158	1,700	78.8	37.40	26.74	64.14
Total, associates	16,864	13,400	79.5	35.79	25.71	61.50
Paraprofessionals						
C. Bryan	2,048	1,650	80.6	17.58	11.60	29.18
N. Harris	2,148	1,750	81.5	17.49	11.21	28.70
J. Myers	1,998	1,550	77.6	19.79	13.58	33.37
M. Turillo	1,998	1,650	82.6	18.26	12.47	30.73
Total, paraprofessionals	8,192	6,600	80.6	18.24	12.18	30.42
Total, firm	48,672	38,300	78.7	$41.38	$31.33	$72.71

Exhibit 11-6

Income Target per Estimated Billable Hour and Standard Billing Rate
Year Ending December 31, 19XX

Scenario 1

	*Cost Recovery Target per Estimated Billable Hour**	*Income Target per Estimated Billable Hour*	*Total Target per Estimated Billable Hour*	*Realization Rate (%)*	*Computed Standard Billing Rate*
Partners					
E. Hager	$104.82	$9.66	$114.48	83	$137.93
R. Lee	174.68	16.09	190.77	83	229.84
J. Kinard	98.27	9.05	107.32	83	129.30
K. King	112.30	10.35	122.65	83	147.77
J. Foley	142.93	13.17	156.10	83	188.07
M. Kaplan	120.94	11.14	132.08	83	159.13
Total, partners	120.94	11.14	132.08	83	159.13
Senior associates					
D. Bryan	69.00	5.90	74.90	83	90.24
J. Cohen	76.12	6.44	82.56	83	99.47
R. Grant	85.56	7.32	92.88	83	111.90
K. Hard	90.48	7.70	98.18	83	118.29
M. Leone	75.90	6.43	82.33	83	99.19
D. Stone	72.72	6.21	78.93	83	95.10
Total, senior associates	77.78	6.62	84.40	83	101.69
Associates					
J. Abrams	61.85	5.23	67.08	83	80.82
L. Desmond	69.35	5.86	75.21	83	90.61
T. Grant	57.94	4.88	62.82	83	75.69
W. Morgan	61.10	5.17	66.27	83	79.84
P. O'Brian	56.11	4.73	60.84	83	73.30
L. Piccolo	58.53	4.94	63.47	83	76.47
V. Raeback	63.95	5.38	69.33	83	83.53
J. Smith	64.14	5.40	69.54	83	83.78
Total, associates	61.50	5.19	66.69	83	80.35
Paraprofessionals					
C. Bryan	29.18	2.34	31.52	83	37.98
N. Harris	28.70	2.26	30.96	83	37.30
J. Myers	33.37	2.74	36.11	83	43.51
M. Turillo	30.73	2.52	33.25	83	40.06
Total, paraprofessionals	30.42	2.46	32.88	83	39.61
Total, firm	$72.71	$6.32	$79.03	83	$95.22

*From exhibit 11-5.

Exhibit 11-6

Income Target per Estimated Billable Hour and Standard Billing Rate
Year Ending December 31, 19XX (*continued*)

Scenario 2

	*Cost Recovery Target per Estimated Billable Hour**	*Income Target per Estimated Billable Hour*	*Total Target per Estimated Billable Hour*	*Realization Rate (%)*	*Computed Standard Billing Rate*
Partners					
E. Hager	$104.82	$27.76	$132.58	83	$159.73
R. Lee	174.68	46.27	220.95	83	266.20
J. Kinard	98.27	26.03	124.30	83	149.76
K. King	112.30	29.74	142.04	83	171.13
J. Foley	142.93	37.85	180.78	83	217.81
M. Kaplan	120.94	32.03	152.97	83	184.30
Total, partners	120.94	32.03	152.97	83	184.30
Senior associates					
D. Bryan	69.00	16.95	85.95	83	103.55
J. Cohen	76.12	18.51	94.63	83	114.01
R. Grant	85.56	21.03	106.59	83	128.42
K. Hilliard	90.48	22.13	112.61	83	135.67
M. Leone	75.90	18.49	94.39	83	113.72
D. Stone	72.72	17.86	90.58	83	109.13
Total, senior associates	77.78	19.04	96.82	83	116.65
Associates					
J. Abrams	61.85	15.03	76.88	83	92.63
L. Desmond	69.35	16.84	86.19	83	103.84
T. Grant	57.94	14.04	71.98	83	86.72
W. Morgan	61.10	14.86	75.96	83	91.52
P. O'Brian	56.11	13.59	69.70	83	83.98
L. Piccolo	58.53	14.21	72.74	83	87.64
V. Raeback	63.95	15.48	79.43	83	95.70
J. Smith	64.14	15.51	79.65	83	95.96
Total, associates	61.50	14.92	76.42	83	92.07
Paraprofessionals					
C. Bryan	29.18	6.73	35.91	83	43.27
N. Harris	28.70	6.50	35.20	83	42.41
J. Myers	33.37	7.88	41.25	83	49.70
M. Turillo	30.73	7.23	37.96	83	45.73
Total, paraprofessionals	30.42	7.07	37.49	83	45.17
Total, firm	$72.71	$18.18	$90.89	83	$109.51

*From exhibit 11-5.

Exhibit 11-7

Projected Statement of Income From Operations
Year Ending December 31, 19XX

Scenario 1

Gross projected fee income at standard billing rates			$3,647,066	120.5%
Realization percentage			83.0%	
Net projected fee income			3,027,065	100.0%
Less:				
Projected cost of service (exhibit 11-2)	1,584,900	52.4%		
Projected overhead expenses (exhibit 11-3)	1,200,000	39.6%		
			2,784,900	92.0%
Projected pretax income			$242,165	8.0%

Scenario 2

Gross projected fee income at standard billing rates			$4,194,126	120.5%
Realization percentage			83.0%	
Net projected fee income			3,481,125	100.0%
Less:				
Projected cost of service (exhibit 11-2)	1,584,900	45.5%		
Projected overhead expenses (exhibit 11- 3)	1,200,000	34.5%		
			2,784,900	80.0%
Projected pretax income			$696,225	20.0%

BIBLIOGRAPHY

Gabor, Andre. *Pricing: Concepts and Practices for Effective Marketing*. Brookfield, Vt.: Gower Publishing Company, 1987.

Lere, John C. *Pricing Techniques for the Financial Executive.* Melbourne, Fla.: Krieger, 1974.

Monroe, Kent. *Pricing: Making Profitable Decisions*. New York: McGraw-Hill, 1979.

Oxenfelt, Alfred R. *Pricing Strategies*. New York: AMACOM, 1982.

Symonds, Curtis W. *Pricing for Profit*. New York: AMACOM, 1982.

Tucker, Spencer A. *Pricing for Higher Profit*. New York: McGraw-Hill, 1966.

12/100 PREPARING FINANCIAL MODELS

CONTENTS

12/100 PREPARING FINANCIAL MODELS

12/105 SCOPE OF THIS PRACTICE AID

.01 Practitioners often help their clients by advising on and assisting in financial planning. One of the major types of financial planning assignments is to help prepare financial projections and forecasts. Financial models make developing these forecasts and projections easier.

.02 A *model* can be defined as something that mimics relevant features of the situation being studied. A *mathematical model* mimics reality by using the language of mathematics. The mathematical model has been defined as "an abstract, simplified, mathematical construct related to a part of reality and created for a particular purpose."[1] The following describes how a mathematical model may be used:

> Since the astronomer cannot manipulate the system he studies, he builds a *representation* of it. This he calls a "mathematical model." It represents the structure of the real system in quantitative terms. Models can be manipulated and analyzed more easily than the real system and hence permit the scientist, in effect, to carry on vicarious experimentation. He can systematically vary some properties of the system, holding others constant, and in this way determine how the system as a whole would be affected if the changes actually did occur. In fact, he simulates the real-life alteration and experiments in abstract terms.[2]

.03 This practice aid deals specifically with *financial models*, the purposes of which are to—

- Concentrate management planning on the most relevant aspects of a business and their interrelationships.
- Evaluate the consequences of alternative decisions.
- Assess the impact of quantifiable outside forces.
- Provide a flexible structure for modification.

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[1] Edward A. Bender, *An Introduction to Mathematical Modeling* (New York: John Wiley & Sons, 1978), p. 3.

[2] Russell L. Ackoff and Patrick Rivett, *A Manager's Guide to Operations Research* (New York: John Wiley & Sons, 1963), p. 24.

- Permit analysis and experimentation with complex situations to a degree that would be difficult or impossible within the framework of the actual system because, for example, of time, legal, and operational constraints.

- Provide the ability to measure performance.

- Forecast expectations.

- Provide a vehicle for improved communication among managers.

.04 Financial models can be applied across the entire spectrum of business and industry, as well as in government and nonprofit organizations. Managers, directors, and lending officers are attracted to financial models because they expect them to reduce uncertainty about the future of the business. The models accomplish this by introducing statistical data about relationships and trends.

.05 Models can help answer specific questions about an organization, such as the following:

- Will the expansion of a plant be worth the cost, and can its financing be paid out of earnings?

- What will be the internal rate of return from the cash flow of a project over fifteen years?

- Given the data on operations for the current year to date, plus data on past seasonal patterns, how are the company's statements likely to look at the end of a certain period?

.06 The client and the practitioner need to realize that (1) a large number of models are possible, and that (2) a large number of sets of data and formulas could be used to develop a model of any situation. The initial task is to select one set or a small number of sets for actual trial and presentation to achieve the purposes of management.

.07 The focus of this practice aid are engagements involving the development of a financial model (for purposes other than personal financial planning).[3] Such an engagement might include—

- Reviewing or developing planning concepts in the client organization.

- Selecting, gathering, compiling, validating, and assessing data required in the planning process.

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[3] The output of such an engagement is the financial model. The activities described in this practice aid are intended solely to facilitate development of the model. For additional information, refer to appropriate AICPA professional pronouncements.

- Determining relationships and interactions among the key factors in client operations and finances.
- Reviewing financial, planning, and operating assumptions with the client.
- Constructing a formal model of key factors, relationships, and interactions.
- Analyzing, testing, and presenting results produced by running the model, using various combinations of assumptions, relationships, and activity levels.
- Revising or updating the output as time passes, using amended inputs.
- Submitting the model to the client for future use and maintenance, with appropriate documentation and training.

.08 A fully customized model may be unnecessary for a particular financial application because software may be available to accomplish the same purpose.

.09 This publication is intended to bridge the gap between the applicable AICPA pronouncements governing prospective financial information and the capabilities, requirements, and limitations of the computer systems and software used to develop financial models. Neither the AICPA pronouncements nor the computer systems and software are discussed in any detail in this publication. It is assumed that the practitioner will be familiar with both the pronouncements and the software before undertaking any assignment involving financial modeling. Instead, this practice aid is concerned primarily with what the practitioner engaged in financial planning needs to think about before sitting down at the keyboard.

.10 This practice aid also assumes that the practitioner has a working knowledge of a microcomputer software package capable of developing financial models. In most cases, such a package will be a spreadsheet, although other approaches, such as modeling languages, can be useful in some applications. The computer spreadsheet is considered the most widely applicable tool for developing a financial model because of its ability to—

- Control the format and content of inputs and outputs.
- Quickly recalculate the entire model when data or formulas are added or modified.
- Rapidly provide comparative output for alternative assumptions.
- Work backwards from targeted results to the assumptions required to achieve them.
- Provide supplementary information—such as averages, ratios, trends, regression analyses, and correlations—useful in formulating, evaluating, and revising assumptions or data.
- Interact with users as they become more familiar with client and other data.
- Promote a better understanding of cause-and-effect relationships.

.11 Other approaches to computerized model preparation include the use of a computer language especially designed for financial modeling, the use of a specialized simulation language, or the use of a general-purpose computer language, such as FORTRAN or BASIC. Most of this publication applies to these approaches as well. It rests with the practitioner to determine the approach that best suits the situation and the available software.

12/110 MODEL CLASSIFICATIONS

.01 A model may be classified as a *deterministic, probabilistic* (or *stochastic*), or *optimization* model. Whatever its classification, a model may become a component of a client's decision-support system. This practice aid is concerned primarily with deterministic models designed to produce prospective financial statements in their entirety or major segments thereof. The bibliography also includes references to material on probabilistic and optimization models, which may be useful in some engagements.

Deterministic Models

.02 *Deterministic models* are those in which each value of each variable is determined completely from the given assumptions. Typical uses of deterministic models include—

- Development (through accounting and statistical analysis) of the values and relationships among variables, and the construction of models for client use. The practitioner provides the client with the model, along with documentation and a user guide.
- Statistical projections of single variables. Typical examples are sales forecasts by product group, geographical area, or customer group. The primary deliverables may be the set of forecasts in a report, letter, or computer printout, with transmittal documents.
- Forecasts or projections of the principal financial statements: income statement, balance sheet, and statement of cash flow. The deliverable is normally a report to management in compliance with AICPA pronouncements and guidelines.
- Detailed budgets. The practitioner develops an account-by-account, profit-center-by-profit-center model of a client organization, with computerized calculation of the values for every item in each period. This model is structurally similar to the one used in making financial forecasts, except for these important differences:
  - Shorter time span, typically a year
  - Shorter periods within the time span, typically a month or a quarter instead of a year
  - More detail, often at line-item level, for each department of the organization
  - More attention to seasonality

Probabilistic Models

.03 *Probabilistic*, or *stochastic, models* include one or more random variables. The values of the variables are determined from a probability distribution (the laws of chance governing each variable).

.04 A typical probabilistic model would provide output in the form of histograms, or tables of key output variables, with their calculated probabilities of occurrence. The practitioner normally provides the client with a copy of the computer printout, along with a user guide and letter of transmittal and comment.

Optimization Models

.05 *Optimization models* are designed to determine which of several possible solutions best meets a given criterion, such as least cost or greatest profit, subject to various constraints. These models are often developed to determine the optimum combination out of a list of items, such as a marketing or products mix or a blend of ingredients or components. Typical optimization models include linear programming models and others designed to find the optimum value of a criterion and its associated input values.

12/115 TYPICAL ENGAGEMENT SITUATIONS

.01 The need for a financial model can arise under several circumstances. The following are examples of situations that may prompt a client to seek assistance:

- The client's lender has requested financial projections in connection with loan financing.
- A specific decision-making problem arises, such as an opportunity to purchase another business or enter another market; to acquire new facilities or equipment; or to change production, marketing, or financial policies.
- A department's budgeting process has been inadequate for several years.
- Management decides that a formal approach to strategic financial planning is desirable, or it wishes to integrate existing unit plans into an overall financial plan.
- The client seeks a financial model that can be used as a "what if" management tool in determining new product markets, product deletions, pricing impacts, and sales mixes.
- The client wishes to quantify, analyze, or modify interrelationships among activities within the organization.

12/120 ENGAGEMENT CONSIDERATIONS

.01 Engagements involving the preparation and use of financial models can provide the practitioner with an opportunity to assist the client in the planning process. However, there are many pitfalls that can complicate or interfere with the full achievement of engagement objectives. The following are some of the most common of these pitfalls:

- Lack of knowledge about the specific industry and firm
- Inadequate definition of client needs and requirements
- Excessive complexity, as in the inclusion of too much detailed data or the use of overcomplicated computational equations
- Lack of client involvement, which can lead the practitioner to make assumptions inconsistent with the real situation
- Underestimation of the computer and personnel time and costs involved in testing, debugging, and producing alternative runs
- Failure to comply with current AICPA pronouncements on prospective financial statements
- Lack of consistently classified historical data
- Lack of knowledge about or access to a suitable financial modeling package
- Insufficient attention to the behavior of fixed and variable elements of operational costs
- Too much or too little emphasis on the accuracy of accrued income and expense items in the financial model
- Insufficient attention to time-frame requirements
- Inadequate review of the model and results (because it is assumed that the model will generate correct solutions)

.02 Practitioners new to financial model preparation are warned that selecting a modeling package and learning its operating rules and capabilities require significant effort. The mastery of modeling languages, even those described as user friendly, requires considerable practice. The CPA embarking on his or her first effort should plan to devote sufficient time to selecting a suitable financial modeling package, finding out how to write the formula for the model, doing the actual writing, entering the model and data into the computer, and debugging the results until the output provides appropriate numbers. The practitioner also needs to become adept at the cosmetic tasks of suppressing nonprinting variables, titling, underlining, and spacing.

12/125 ENGAGEMENT OBJECTIVES AND CLIENT BENEFITS

.01 The objective of an engagement to develop a financial model is to produce prospective information that will assist the client in one or more of the following activities:

- Weighing the consequences of alternative courses of action (for example, whether to merge, acquire, or divest; buy or lease; expand, commit, build, or borrow; or change price)
- Planning activities over a specified time frame (typically three to five years)
- Monitoring actual results against plans, and updating plans over time
- Formulating operational plans by division, department, market, or some other segment of the client's business

.02 The following are examples of how *objectives* might be stated in an engagement letter to a fictitious company called the Practical Machine Company:

- To assist in creating, testing, and operating a computerized financial model of the Practical Machine Company's operations, financial condition, and cash flow for the five years ending 19XX. The assumptions on which this model will be based will be provided or approved by company management.
- To test and validate the results of several alternative assumptions about corporate policies and environmental conditions.
- To prepare a report to management containing projected financial statements based on the model, together with underlying assumptions. The report will show results for the base case and will depict the impact of various other alternatives.

.03 Practitioners often describe potential benefits in the proposal or engagement letter. *Client benefits* that might result from an engagement involving development of a financial model include—

- Achievement of the principal engagement objective.
- New insights into relationships, priorities, limitations, and goals that the client had been unable to quantify.
- Identification of areas in which better planning, measurement, monitoring, and control are desirable.
- Increased coordination of planning activities and resolution of inherent conflicts between various functional areas.

- Determination of which customers, product lines, and geographical distribution areas will be profitable or unprofitable in situations where costs vary.
- Improved planning techniques.
- Enhanced staff communication.

.04 To avoid imperiling the effectiveness of the engagement, the practitioner makes sure not to overstate or misrepresent in the engagement letter the potential benefits to the client. He or she uses precise, realistic, and cautious language, pointing out that the achievement of benefits depends heavily on the client's future actions, on the quality of client-supplied data and assumptions, and on other controllable and uncontrollable events.

12/130 ENGAGEMENT SCOPE

.01 To conduct a successful engagement, the practitioner needs to reach an understanding with the client about the financial model requirements. The following matters are especially recommended for discussion with the client:

- The intended use of the model and the type of sensitivity analysis to be performed
- The amount of assistance that client personnel will provide in gathering, analyzing, and summarizing data
- The degree of detail of the model (for example, product line, product group, geographical divisions, plant work centers)
- The requirements for output graphs, charts, and reports, including variables of major interest, format and level of detail, and documentation for subsequent client or lender use
- The amount of computer time needed for initial model development, data entry, testing, debugging, production runs, subsequent refinement, and reruns
- The time horizons (i.e., the number of periods to be projected)
- The engagement ending statement, including the criteria for completion of the engagement

.02 The following statement illustrates how the scope might be described for one type of financial modeling engagement: "The scope of this assignment will be the development of a financial model for the purpose of producing projected annual financial statements for a three-year period."

.03 If prospective financial statements are the engagement objective, the engagement outputs might be described in the letter as follows:[4]

- A management report presenting the financial forecasts for the period or periods under consideration and the projections' underlying assumptions. The report will show results for the base case and will depict the impact of various other alternatives and sensitivity analyses.

- A listing of the computer model input, including the variables (accounts or categories) used, the data supplied, and the calculation equations, and a listing of the resulting output, consisting of the three principal forecasted financial statements for each set of assumptions.

Appendix 12/A contains a sample engagement letter. The unique tasks and output requirements that may be appropriate for a specific engagement are listed in appendix 12/B.

12/135 ENGAGEMENT APPROACH

.01 The term *approach* is generally used to describe the overall plan for a specific consulting services engagement. The practitioner outlines the approach in the proposal or engagement letter after reaching an understanding with the client about how the engagement objectives will be accomplished. The following illustrates a typical approach to a financial model development engagement.

a. Determine the questions the model is to address and the problems that are to be solved.

b. Review the data available. The CPA firm's other work has made its representatives generally familiar with the client's accounting records. However, other useful data, such as hours worked, units produced, miles run, square feet constructed, and patient days, are not in the chart of accounts and need to be incorporated among the variables in the model. This is because many revenues and costs depend partially or fully on physical activity rather than on the passage of time.

c. Select, gather, compile, and assess specific data.

d. Analyze and test data to determine relations, interactions, causes, and effects. Such an analysis should balance automated statistical methods with manual methods, plotting variables against one another. This will help to ensure that relationships derived through statistical analysis do, in fact, make good sense to both client and practitioner.

e. Lay out a tentative model structure, including variables and their relationships.

[4] For engagements involving the reporting of prospective financial information, see appropriate AICPA professional pronouncements.

f. Review the tentative structure with client management and amend it as appropriate.

g. Write, code, debug, run, and validate the definitive model. Include such documentation as detailed flow charts, narrative equation discussions, data source definitions, and descriptions of gathering-validation processes, as appropriate. At this stage, sufficient allowance needs to be made for variable, rather than fixed, quantities in the model's equations.

h. Review the first results with the client and agree on alternative assumptions.

i. Rerun the model.

j. Repeat steps *h* and *i* as required.

k. Analyze results and present conclusions.

l. Prepare explanatory detail and operating instructions, as required by the terms of the engagement.

An example of how the approach section might appear in an engagement letter is provided in the sample letter in appendix 12/A.

Considerations in Model Preparation

.02 In developing an approach to an engagement to prepare a financial model, the practitioner considers many factors. These factors may include some that are typical of any financial model preparation and some that are unique to a specific situation. The following section discusses several factors that the practitioner needs to consider when preparing a financial model.

.03 In the typical modeling situation, practitioners need to draw on a variety of concepts and skills. Practitioners who know how and when to apply this knowledge will develop more effective, concise, and sensitive models when they encounter real-world applications. Financial models usually incorporate knowledge from several disciplines, such as—

- *Economics*, especially price-demand relationships in the marketplace.
- *Statistics,* including probability and statistical inference; curve-fitting and linear regression, both single and multiple; and time-series forecasting methodologies, from simple linear trends to growth curves to sophisticated techniques such as the Box-Jenkins approach.
- *Mathematics*, including linear algebra, matrix notation, and solution of simultaneous equations.
- *Cost accounting*, especially the relationships between cost, volume, and profit.

- *Finance*, especially formulas for present values, debt repayment, and return on investment.

- *Presentation graphics*, including those using logarithmic and probability scales.

- *Financial accounting*, to ensure compatibility of client accounting policies and practices with the financial statements to be issued in the future.

- *Tax law*, for taking into account current tax consequences, such as capital equipment depreciation and amortization, cash flow, and anticipated tax payment dates.

.04 In a large organization, the client may have staff members who can gather and analyze the data, producing inputs and formulas for the model. Otherwise, the practitioner or the practitioner's staff will identify the essential model relationship. The identification is based on data provided by the client's marketing, production, engineering, financial, and personnel managers. The practitioner and the client will need to think of trends, averages, patterns, and planning factors that may not have appeared in previous financial statements.

.05 Identifying Variables and Their Relationships. The general approach to a financial modeling engagement will usually differ from the approach to engagements involving a client's financial history. When engaged in work dealing with the past, the practitioner is concerned with gathering and placing data within *classifications*. Usually, these classifications are associated with the following elements:

- Types of costs and expenses

- Organizational divisions or departments

- Capital expenditures versus current expense

- Taxable versus nontaxable, and deductible versus nondeductible, components

- Direct versus indirect expenditures

- Current period versus another period

.06 In financial modeling, classifications cannot be ignored. The primary focus, however, is on determining the variable *relationships* among classifications, or among items within them. This can be accomplished by answering the following questions:

- What items affect the action of other items?

- What items drive other items (i.e., dependent variables)?

- What items move in the same direction as other items (i.e., correlative items)?

- What time lags occur in these relationships?

.07 A good model, then, does more than perform the calculations for a set of prospective financial statements. It also reveals the relationships between the company's activities and its accounts. The financial factors that are used in planning are embodied in the model. These factors include—

- Rates of change in costs, profitability, growth, and decline.
- Limits (upper or lower) imposed by physical capacity, market factors, contractual arrangements, and management policy.
- Fixed and variable components of costs, revenues, and balance-sheet items.

.08 Some relationships of financial modeling variables deal with expenses. These expenses include those related to sales or revenues, those unrelated to sales or revenues, and those associated with other variables.

.09 *Expenses related to sales or revenues.* Traditionally, accountants have expressed income statement items as percentages of net sales. They are unconcerned with the relationship of these items to net sales. In a financial model, however, practitioners are concerned with certain items that have a clear, but variable, relationship to net sales. Examples of these variables are sales commissions, royalties, and liability insurance premiums.

.10 *Expenses unrelated to sales or revenues.* Other costs have little to do with net sales. These include interest costs, rents (except for some retail leases in which rent is based on a percentage of sales), and many general and administrative expense items.

.11 *Expenses related to other variables.* A third group of expenses presents some interesting problems. These expenses may vary according to sales volume but also are more directly related to other variables. In many manufacturing operations, for example, direct labor hours worked may be the best basis for determining all payroll-related costs as well as many manufacturing expenses. In such instances, direct labor hours worked is a variable that should be included in the model.

.12 **Selecting Variables.** The practitioner will probably change the variables to be used several times before the first computer run and during subsequent runs. A small number of variables will probably result if the practitioner strives to develop a concise, flexible, and cost-effective model. A large number of variables usually results when the practitioner yields to the temptation to tell the whole story, to present it elegantly, and to comply with long-standing accounting practices.

.13 The purpose of the engagement, the users of the model, and the materiality of the items considered have a significant bearing on whether variables are considered separately or are grouped together. There are three general sources of variables.

a. *Ledger accounts.* To tell the whole financial story, every dollar that appears in the accounts must be included in the model, although not necessarily in the same degree of detail. Some accounts may be separate variables, but others may be grouped into one variable. Ratios and trends derived from the ledger accounts may also be significant as separate variables. Examples are the sales-growth rate, the receivables-collection period, and the gross-profit ratio.

b. *Vital statistics of the company*. Various company statistics may be key variables with respect to a specific client situation. These might include pay rates, growth rates, tax rates, labor hours, pounds of material used, units produced, kilowatt hours or gallons used, and number of employees (including office employees), trucks operated, miles run, and customers. Not all of these statistics may be included in the computer reports.

c. *External variables*. Forces outside the company may affect its profitability. Therefore, in determining model relationships, the practitioner considers the significance of industry statistics, state and federal government statistics (such as the inflation rate or the GNP growth rate), and local economic indicators. These may provide insight into whether the client's experience is unique to the firm or more widespread.

.14 To develop most financial models, the practitioner can use significantly fewer variables than are usually required for financial statements or management reports. Indeed, limiting the number of variables helps the user to see the overall picture and simplifies data gathering, verification, and analysis. It also keeps the time and costs of model preparation within reasonable bounds. Therefore, instead of attempting to forecast the behavior of individual accounts, it is frequently preferable to analyze the history of the aggregate of a related group.

.15 A model also attempts to distinguish between significant changes and unimportant fluctuations. It therefore uses averages, or the central tendency over time. For example, each of a dozen factory expense accounts or general and administrative expense accounts may display wide, unexplained fluctuations from month to month. In total, however, the fluctuations may be fairly narrow, between, say, 9.1 and 11.3 percent of sales volume over the course of twelve or twenty-four months. Accordingly, depending on the purpose of the model, it may well suffice to use the average—10.2 percent of sales—as a planning factor for the group.

.16 For practitioners new to the modeling process, it is preferable to keep the initial number of variables small and add to them only when necessary. For example, in a client organization with revenues of $50 million or less, the practitioner will find that the appropriate variables include perhaps twenty income statement items, twenty-five balance-sheet items, twenty cash-flow items, twenty rates and ratios (internal, industry, or general economy), and ten physical volume measures. These variables will probably be sufficient to model the many relationships and interactions that occur over twelve months, twenty-four months, or twenty quarters. Even if the chart of accounts contains 500 accounts, the practitioner will usually find that fifty to one hundred variables are ample to reflect the key aspects of the client organization's activities.

.17 Grouping Information into Variables. Before deciding whether an account should be represented by a variable or included in a group represented by a variable, the practitioner determines first whether it is relevant. The next step is to analyze the account's behavior by asking these questions: What affects it? What interacts with it? How can the relationship be described? Does it change according to its own performance over time, or is the change linked to volume, to a schedule, or to some other variable in the model?

.18 Another consideration is how the information is classified, grouped, or aggregated. For example, a company may have ten inventory categories and ten purchase accounts for these categories. If, however, usage or purchases for each are inaccurate, there is little point in trying to predict interim inventory levels for each of the ten categories. A single inventory variable called *total inventory* would probably suffice. Conversely, if information about levels, stock turns, and buying policies for the several categories is accurate, and if inventory management is the focus of the engagement, ten separate variables for inventory may be required. Even in these circumstances, however, the number of meaningful categories probably can be condensed.

.19 A final consideration is how closely related, for planning purposes, the account is to other accounts. It is customary, for example, to carry a separate ledger account for each type of payroll tax and fringe benefit. For general corporate planning such as that envisioned in a model, it is more important to know that the total of taxes, pension costs, and other payroll-related costs is currently 22 percent of payroll than to know what items constitute the 22 percent. Therefore, one variable will often suffice.

.20 Developing Assumptions. In developing the assumptions to be used in the model, practitioners may draw on the client's definitive plans, its history, management's judgment, and their own judgment. The following describes the considerations associated with each of these sources, which are listed in order of their probable usefulness.

a. *Client's definitive plans*. For example, if a five-year capital budget has been developed already, this can become the logical starting point for modeling plant or equipment additions and replacements.

b. *Client history*. An analysis or a graphic plotting of a variable may indicate a consistent rate of growth or relationship to another variable. It would be logical, then, in the absence of conflicting information, to select that historical pattern as an indicator of future behavior. Typically, however, the pattern will be somewhat erratic. Regression analysis can smooth the pattern into a straight line or curve. A good check on the assumption is to predict a variable from a point in the past (for example, twelve months earlier) to the current period and validate the statistical significance of the relationship. There is no guarantee that past history is a reliable indicator of the future, but at least it provides a basis for discussing with the client how this variable may behave during the projected period.

c. *Client judgment*. In the absence of a marketing plan and in view of erratic recent history, a client manager may feel, for example, that volume is hard to predict and suggest using an average annual volume growth of 12 percent. The practitioner may believe that 10 percent is safer and may have heard that a local competitor is targeting 15 percent. In this case, the practitioner could consider capacity constraints, pricing levels, marketing expenditures, and general economic conditions in evaluating the client's expectations. When data are unavailable, the practitioner may research appropriate external data to assist the client in developing assumptions.

d. *Practitioner's judgment.* Clients have been known to mistrust past history as an accurate indication of such trends as interest-rates. Consequently, they will often ask for the practitioner's suggestion. The practitioner may have to base the suggestion on discussions with colleagues and lenders and a consideration of current trends.

Other Aspects of Modeling

.21 In designing the model and specifying the relationships among the variables, the practitioner considers the capabilities of the available software in handling the data and the formulas. These capabilities may include—

- Data base function.
- Macros.
- Graphics.
- The ability to draw historical data directly from the client's data base and use them in regression and trend-line analyses.
- "What if" tests of various alternative sets of assumptions.
- "Work backwards" calculations to determine the input values (assumptions) needed to obtain a target (for example, $3 million by 1995).

.22 None of these capabilities is essential to the development of an effective model. The form and content of the model, however, can be strongly influenced by their availability and imaginative use.

.23 The mechanics of turning assumptions into equations is generally, but not entirely, independent of the software used. Most spreadsheet software has the capability to reach forward or backward into one or more time periods to select a value or a variable. For example, the sales volume in December, January, and February may be used to project the cash collections in March. Some spreadsheet packages also have built-in statistical routines. Awareness of such capabilities and their use can lead to wiser decisions about the best bases on which to project values.

.24 To better simulate the real conditions involved in most business planning, the practitioner would do well to master the *logical* capabilities of the spreadsheet package or programming language to be used. The basic portion of a formula involving logical capability is the "if-then-else" portion. This capability, in combination with one or more "and" or "or" clauses, often provides a powerful tool with which to address complex decision rules for certain variables. These variables are independent because their values do not depend on an assumed growth rate, nor do they depend directly on the values of other variables. These independent variables include inventory levels, acquisition of new property and equipment, new debt, timing and amounts of optional prepayments of debt, bonus and profit-sharing expenses, and tax expenses.

.25 The more experience practitioners have in the application of these logical capabilities, the greater their skill in enhancing the model's ability to track closely the decision-making processes of the client management. In addition, developing portions of the model to use logical capabilities will help the practitioner to assist the client in gaining a clear understanding of how the decision-making processes operate as conditions vary, as time passes, and as particular choices are made.

.26 Another consideration in model development is whether to supply certain values as given data or to let the model calculate them. For example, a model for projecting long-term indebtedness and payments can be structured in one of the following three ways.

a. The initial balance, amount of periodic payment, and interest rate are given as data. The equations of the model include calculations of interest, periodic interest deductions from each payment, and reductions of principal by the remaining portion of the payment.

b. The remaining balances due are calculated separately from the model (by table or calculator). Then the string of debt balances is supplied to the model as data along with the periodic payments. The model arithmetic only involves applying the periodic difference in balances to the total payment and assigning the remaining portion to interest expense.

c. Probably the most cumbersome approach is to input all of the pertinent dollar values from a debt amortization schedule into the model as data, using no equations relating to debt in the model itself.

.27 Sequence of Model Development. Model development generally involves the following three steps.

a. *Select the variables (accounts) and time periods.* Electronic spreadsheets have different means of supplying the numerical data for calculations. The typical spreadsheet allows the user to construct a worksheet in which the columns are the time periods and the rows are the variables or accounts to be used. The computer screen displays a table consisting of the columns and rows so defined, with all of the table values set to zero until otherwise instructed.

b. *Define the initial variable values.* The data to be set into the table initially are the givens of the assumptions and may consist of dollar values, rates, quantities, ratios, or any other numbers, including beginning balance-sheet figures. The model may also include one or more periods of operating history for comparison or as the basis for computation.

c. *Define the logical relationships between variables and time periods.* The equations may contain numeric values or names of variables or constants. Whether these values should be embodied in the equations or given variable names with the values supplied as data is a matter of judgment. An item should be set up as a variable if its value may change on subsequent runs of the model. This approach provides greater flexibility. In short, the practitioner needs to learn as much as possible about what makes the numbers fluctuate and which numbers depend on others. Fixed items such as rent, which are expected to continue from period to period in the same dollar amount, tend to be the exception.

.28 **Validation of the Model.** In the final analysis, the ultimate validation of the model comes only with the passage of time, by which it can be determined whether or not the financial statements for the period projected come reasonably close to the predicted results.

.29 Before releasing the final version of the model to the client, the practitioner takes measures to enhance the model's validity. Some suggested techniques are to—

a. Review working papers related to the analysis of client history to verify any new insights into assumptions or variables produced by model development and testing.

b. Input historical data to the model and determine the accuracy of projections compared with actual results.

c. Compare various interim runs of the model to see whether significant changes, particularly bottom-line changes, make sense in light of the varying inputs. Do the runs make sense when compared with one another?

d. Perform sensitivity analyses, on the computer, to verify the way outputs behave as inputs vary. In doing this, the practitioner and the client may find the following concepts useful:

- *Marginal profitability, or the profitability derived from sales that exceed planned levels*—For example, if each additional dollar of sales above the planned level can be expected to produce a net income of sixteen cents, even though the overall average net after tax is ten cents

- *Marginal costs, or the costs involved in producing products or providing services above projected levels*—For example, if the cost to make each additional unit of output beyond the levels projected is $82, the client may ask for how much an additional unit could be sold

- *Tax effects*—For example, if an additional dollar of plant investment in 19X1 will affect after-tax interest costs in 19X2 by seven cents, considering interest rates and tax rates

e. Consider the reasonableness of the model. Can management truly achieve this kind of growth rate, considering the past performance of the company and the present state of the industry? What would be the effects of a growth rate of 2 percent less? Would it be more reasonable?

f. Consider the repercussions. For example, client management sometimes optimistically plans for rapid growth, high turnover of assets, and high profitability. When these goals are not reached, it may be difficult to explain the reasons to a loan officer.

g. Consider new information. Has historical data for a more recent period become available during the course of model development? Does it change anyone's thinking? Does it change any of the historical relationships?

Engagement Output

.30 The output of a financial modeling engagement may or may not be the model itself and the appropriate documentation and operating instructions. This depends on whether the client is planning to use the model on a continuing basis. In general, the engagement produces multiple runs of the model, each of which is based on different assumptions and documentation and is related to a corresponding output report.[5] In many cases, the assumptions are contained in the listing of spreadsheet formulas, often with a separate listing of the spreadsheet cell contents. These assumptions will usually be translated for reporting purposes into a plain English version, which includes—

- Initial data, such as the beginning balance sheet (often incorporated by reference).
- Rates of growth or change.
- Relationships, such as an explanation of which variables are affected by others.
- Timing, or an indication of when changes begin and end.
- Conditional, or "if," statements. For example, in the statement "If A is less than 25 percent of B, then C is this; otherwise, C is that," C could be a number, a variable, or an entire set of equations.

.31 Additional engagement output may include copies of working-paper analysis and graphic presentations of the relationships between costs, volume, and profits. Sometimes copies of the condensed and summarized data and graphs used in developing regression analyses or time-series forecasts can be helpful to a client whose own records of the same data are too detailed or too far-flung to be useful in pattern recognition. The practitioner's analysis of these data may well present a view of the forest to a client whose records are in the form of trees. At the end of the engagement, the practitioner may also provide the client with copies of worksheets that show the statistical derivations of the trends, ratios, and planning equations.

[5] This practice aid does not encompass the use of the output in meeting engagement objectives when model preparation is only part of a broader engagement.

APPENDIX 12/A

SAMPLE ENGAGEMENT LETTER

CPA & Company
Ourtown, USA 00000

October 12, 199X

Mr. James R. Broadview
Vice President, Finance
The Practical Machine Company, Inc.
1234 West Fifth Street
Ourtown, USA 00000

Dear Jim:

It was good to discuss your company's financial planning needs with you and your associates during our meeting last Monday. You expressed a desire to integrate several departmental planning documents into an overall financial planning model.

This letter defines the scope and objectives of an engagement to develop such a model and describes our approach to accomplishing the work we discussed.

Engagement Objectives

The objectives of the engagement will be—

1. To develop and run a computerized financial model of the Practical Machine Company's operations, financial condition, and cash flow for the five years ending 19XX, using assumptions provided by company management.

2. To test the results of several alternative assumptions about corporate policies and environmental conditions.

3. To provide sufficient documentation and training to enable company personnel to update the model annually in the light of subsequent experience and planning.

Engagement Scope

We will develop a financial model for the Practical Machine Company using the approach outlined in the following section. During the engagement, we will consider all company operations and finances, based on the current accounting system and policies. In addition, we will examine appropriate statistical data, classified into a useful but manageable set of categories. At the conclusion of the engagement, we will provide you with a user guide and other documentation for the model and a listing of the model input and output.

Engagement Approach

Our approach to meeting the objectives of the engagement will be—

1. To analyze the trends, ratios, and volumes in major company activities, as reflected in the accounts and statistics for recent years.
2. To select the appropriate categories and relationships to be included in the model.
3. To construct and test the model a sufficient number of times to ensure that it meets established criteria.
4. To run the model a sufficient number of times to permit management to select definitive planning assumptions.
5. To train Practical Machine Company personnel in locating the sources of planning data, using the model, and making changes to reflect subsequent experience and incorporate revisions.

Engagement Output

At the conclusion of this engagement, we will provide you with—

1. A user guide and other software documentation for the model.
2. A listing of the computer model input, consisting of the categories (variables) used, the data used, and the calculation equations, and a listing of the resulting output, consisting of the three principal forecasted financial statements.

In addition, we will give you copies of worksheets showing the statistical derivations of the trends, ratios, and planning equations.

Benefits

As a result of this engagement, the Practical Machine Company will have the ability to prepare financial plans that will serve as the basis for developing detailed budgets and for advising its board of directors and its bank of the outcome of management's broad financial planning. The company will also have a vehicle for updating its intermediate plans.

Project Staffing and Schedule

We expect to complete the project in approximately six weeks. This will permit management to review, discuss, and modify intermediate results. During the engagement, we will need the assistance of your people as much as possible, especially Joe Jackson (about 40 percent of his time) and you (to a lesser extent). The more your people learn about the model's components and operations, the more useful it will be to your company.

Paul Partner will supervise the consulting engagement, and Sam Senior will be in charge of the fieldwork. Sam has personally conducted similar projects for clients in a variety of industries. We will assign qualified consultants from our staff in the technical aspects of the work. As we discussed with you, we plan to begin the engagement on November 30, 199X.

Fees and Billings Arrangements

We estimate the fees for our services will be between $X,XXX and $X,XXX. In addition, the out-of-pocket costs for computer time are estimated at $X,XXX to $X,XXX. This estimate is based on the assumption that you, Joe Jackson, and other employees will be reasonably available to work with us. If, for any reason, more time and expenditures are required, we will confer with you before proceeding further. If less time is required than anticipated, the charges for our services will be lower. We bill monthly for our consulting services at our standard monthly rates and for out-of-pocket expenses at actual cost.

Please let me know if you have any questions. Your signature on one copy of this letter will serve as our authorization to begin the engagement.

Very truly yours,

____

CPA & Company

Accepted by

____

For the Practical Machine Company, Inc.

____

Date

APPENDIX 12/B

TASKS AND OUTPUTS ASSOCIATED WITH FINANCIAL MODEL DEVELOPMENT

The tasks and outputs in the following chart are not intended to establish engagement requirements. Because each engagement is different, the chart serves only to illustrate the unique task and output requirements that may be appropriate for a specific engagement.

Task	*Purpose*	*Output*
Determine what questions are to be answered and the problems to be solved by the model.	To provide a formal means of defining the scope of the project and a document for continuing reference.	Initial statement of requirements.
	To provide and document the plan for the project.	Work program.
Determine the planning range, number of time periods, and length of each period.	To fix the number of time periods and to identify problems or questions relating to the time span selected.	Memorandum on planning range.
Determine the tentative variables, both internal and external.	To identify the variables to be included in the model, subject to continuing revision during the model development process. Variables may include certain ledger accounts, or aggregates of their rates, ratios, physical measures, and other statistics indicating averages and trends.	Variables list.
Obtain historical data on the variables.	To develop values totals, averages, patterns, and trends for use in the model.	Data worksheets.

Task	*Purpose*	*Output*
Determine the relationships among variables by reviewing analysis and planning documents, analyzing statistics and discussing them with the client, and using professional judgment.	To define the equations by which each variable will be projected over the time span chosen.	Tentative calculation rules.
Decide on the initial model parameters.	To quantify the formulas developed.	Data list.
Lay out the output formats.	To determine the physical layout of the model output.	Output layout.
Select the means of implementation.	To select and describe the computer spreadsheet package, computer equipment, storage media, file names, and locations.	Implementation notes.
Write the model and enter the output formatting instructions into computer files.	To provide a means of running the model on spreadsheet software. Variables, data, and calculation rules are adapted to the structural and syntactical rules of the software selected. Formatting specifications for editing, spacing, underlining, titling, and so forth are also shown.	Spreadsheet formula listing and trail of the data and formulas in use.
Conduct an initial run-review, modify the model, and repeat the run as required.	To ensure that the model runs as intended and provides appropriate results.	Printer output-model results.

Task	*Purpose*	*Output*
Review the initial results with the client.	To document changes in assumptions or planning factors to produce feasible and acceptable financial planning projections.*	Memo of client discussion.
Validate the model and develop details of alternative assumptions: enter changes and run, documenting the parameters used and the structural changes made in each run.	To document details of the changes agreed to by the client.	Model change notes.
Present appropriate output and accompanying assumptions to the client; in some instances, train client personnel to maintain and update the model.	To report the engagement results in a meaningful form (e.g., financial forecasts).	Report.
	To report the progress of client personnel in accepting and using the model.	Training notes.

* For engagements involving the reporting of prospective financial information, the practitioner needs to consult appropriate AICPA professional pronouncements.

GLOSSARY

conditional statement A statement of the rule for calculating a variable as other variables change. It always contains one or more instances of the word *if.* The following are examples of conditional statements:

- If current-month sales are less than $100,000, rent is $5,000. If current-month sales are greater than $100,000 but less than $250,000, rent is $5,000 plus 6 percent of sales in excess of $100,000. If current-month sales are greater than $250,000, rent is $14,000 plus 7 percent of sales in excess of $250,000.

- If year is earlier than 19XX, executive payroll is $287,000. If year is 19XX or later, executive payroll is $300,000 plus 5 percent of sales over $3 million.

- If long-term debt is greater than zero, and if cash is greater than $150,000, long-term debt payment this month is equal to the lesser of regular payment plus $5,000 or regular payment plus debt balance.

constraint A limitation, upper or lower, on the value of a variable or group of variables. Constraints may be imposed by physical capacities, legal or contractual restrictions, or management policies. The following statements are examples of constraints:

- Cash is to have a minimum value of $10,000, below which short-term borrowing will take place, and a maximum value of $100,000, above which there will be short-term investment.

- Department B cannot schedule more than 2,250 hours per year.

dependent variable A quantitative measure whose value depends on the assigned values of other measures on which the estimate is based. For example, the gross margin may depend on revenues and costs of production or operations.

equation In the financial model, an equation is one of the specified relationships; for example: General and administrative expense = $7,400 monthly + 2.7 percent of sales. (See also **inequality**.)

forecast As used generally, a forecast is any computed set of future values of one or more variables, based on certain assumptions and methodologies. As defined by the AICPA, a forecast is a set of prospective financial statements and related data reflecting an expected financial position, the results of operations, and changes in financial position for one or more future periods.

formula An equation written in a syntax that is understood by the software being used.

independent variable A quantitative measure whose value can vary, somewhat arbitrarily. In financial model preparation, the value of this variable is assigned, and the value of the dependent variable results, at least in part, from this assignment.

inequality Any relationship specifying a limited but undefined quantity, such as *greater than, less than*, *greater than or equal to*, and *less than or equal to*. The following statements are examples of inequalities:

- Production level is to be more than 1,500 units monthly.
- Minimum advertising expenditures will be $2,500 monthly.
- Storage costs will be at least $1,000 monthly.

modeling language A computer software language designed specifically for modeling applications.

parameter A constant in the equations or inequalities in a model. Often, a parameter will be varied arbitrarily during "what if" runs of the model. Variables often used as parameters include sales growth rate, prime interest rate, and cost inflation rate.

pro forma A set of historical financial statements adjusted to demonstrate the effect of proposed or possible transactions or events, such as a reorganization, merger, acquisition, major refinancing, or sale of significant assets.[1]

projection An estimate of financial results based on assumptions that are not necessarily the most probable (in contrast to a forecast).[2]

regression analysis A technique for predicting the relationship between two or more correlated variables that are often empirically determined from data. The technique is used especially to predict the value of a related variable. Regression analyses are often calculated by using the straight-line or least squares method ($Y=a + bx$) to predict value: Y is the predicted (dependent) variable, a is the fixed portion, and b is the multiplier or coefficient of the input variable x. The value of x may be dollars, a quantity of items, or a time period.

simulation A modeling technique for generating a series of events or transactions similar to those expected in a real situation, and for calculating their impact on costs, profitability, or time. Simulation models are useful for predicting the personnel, time, and other elements involved in serving people at teller windows, port facilities, checkout counters, toll booths, emergency rooms, and operating rooms. They are also helpful in forecasting job-shop work loads or equipment failures in production, transportation, and communications.

In simulation, the computer's random processing is roughly analogous to rolling a die or selecting a card from a shuffled deck to decide what event happens next. With a simulation routine, years of daily or weekly experience can be imitated in a few minutes.

simultaneous equations Two or more equations whose solutions depend on each other. The classic example in a business situation is the tax-bonus problem, in which the amount of the bonus is some percentage of after-tax income, but the bonus is deductible in calculating income taxes. Some modeling

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[1] Refer to AICPA Statement on Standards for Attestation Engagements, *Codification of Statements on Standards for Attestation Engagements* (New York: AICPA, 1991).

[2] Refer to AICPA Statement on Standards for Accounting Services on Prospective Financial Information, *Financial Forecasts and Projections* (New York: AICPA, 1985) and *Guide for Prospective Financial Statements* (New York: AICPA, 1992).

software has the capability to detect, isolate, and solve simultaneous equations in a model; others merely use zero as the value of any variable not assigned another value by the time it is used in the second equation. In such cases, the iteration capability of the software can help to solve the simultaneous equation. The iteration capability is used to reach the solution by rapidly obtaining successively better answers and stopping when the remaining error is less than $1.

spreadsheet A computer software package specifically constructed to allow the user to input data in rows and columns, perform arithmetic calculations with the data, and define relationships among the data.

BIBLIOGRAPHY

Books

Ackoff, Russell L. *A Concept of Corporate Planning*. New York: Wiley-Interscience, 1970.

Ackoff, Russell L., and B.H. Patrick Rivett. *A Manager's Guide to Operations Research*. New York: John Wiley & Sons, Inc., 1964.

American Institute of Certified Public Accountants. *AICPA Professional Standards*. New York: AICPA, 1990.

Baker, K.R., and D.H. Kropp. *Management Science: An Introduction to the Use of Decision Models*. New York: John Wiley & Sons, Inc., 1985.

Beer, Stafford. *Decision and Control*. New York: John Wiley & Sons, Inc., 1966.

Belkaoui, Ahmal. *Quantitative Models in Accounting: A Procedural Guide for Professionals*. Westport, Conn.: Quorum Books, 1987.

Boer, Germain. *Decision Support Systems for Management Accountants*. Montvale, N.J.: National Association of Accountants, 1987.

Bryant, James W. *Financial Modeling in Corporate Management*, 2d ed. New York: John Wiley & Sons, Inc., 1987.

Churchman, C. West. *The Systems Approach*. New York: Delacorte Press, 1968.

Conley, William. *Computer Optimization Techniques*. New York: Petrocelli Books, 1980.

Driebeek, Norman J. *Applied Linear Programming*. Reading, Mass.: Addison-Wesley Publishing Co., 1969.

Education for Management. *Quantitative Aids to Decision Making*. Watertown, Mass.: Education for Management, 1979.

Emshoff, James R., and Roger L. Sisson. *Design and Use of Computer Simulation Models*. New York: Macmillan Co., 1970.

Gershefski, George. *Using Lotus 1-2-3 to Solve Your Business Problems*. Totowa, N.J.: Rowman & Allenheld, 1984.

Gordon, Lawrence A., Danny Miller, and Henry Mintzberg. *Normative Models in Managerial Decision Making*. Montvale, N.J.: National Association of Accountants, 1982.

Hertz, David, and Howard Thomas. *Practical Risk Analysis*. New York: John Wiley & Sons, Inc., 1984.

Horowitz, Ira. *An Introduction to Quantitative Business Analysis*. New York: McGraw-Hill Book Co., 1965.

Howell, James E., and Daniel Teichroew. *Mathematical Analysis for Business Decisions*. Homewood, Ill.: Richard D. Irwin, 1971.

Jackson, Mary. *Advanced Spreadsheet Modelling With Lotus 1-2-3*. New York: John Wiley & Sons, Inc., 1988.

__________. *Creative Modelling With Lotus 1-2-3*. New York: John Wiley & Sons, Inc., 1986.

Kroeber, Donald W., and R. Lawrence LaForge. *The Manager's Guide to Statistics and Quantitative Methods*. New York: McGraw-Hill Book Co., 1980.

Lin, W. Thomas, and Paul R. Watkins. *The Use of Mathematical Models*. Montvale, N.J.: National Association of Accountants, 1986.

Markland, R.E., and J.R. Sweigart. *Quantitative Methods for Management Decisions*. New York: John Wiley & Sons, Inc., 1987.

Meyer, Henry I. *Corporate Financial Planning Models*. New York: John Wiley & Sons, Inc., 1977.

Raiffa, Howard. *Decision Analysis*. Reading, Mass.: Addison-Wesley Publishing Co., 1968.

Ross, Steven S. *Spreadsheet: How to Build Statistics into Your Lotus 1-2-3 Spreadsheet*. New York: McGraw-Hill Book Co., 1988.

Saunders, John A., John A. Sharp, and Stephen F. Witt. *Practical Business Forecasting*. Brookfield, Vt.: Gower Publishing Co., 1987.

Srivastava, U.K., C.V. Shenoy, and Subhas C. Sharma. *Quantitative Techniques for Managerial Decision Making*. New York: John Wiley & Sons, Inc., 1983.

Tufte, Edward R. *The Visual Display of Quantitative Information*. Santa Monica, Calif.: Graphics Press, 1982.

Vazsonyi, Andrew, and Herbert F. Spirer. *Quantitative Analysis for Business*. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1984.

Wheelwright, Steven C., and Spyros Makridakis. *Forecasting Methods for Management*, 4th ed. New York: John Wiley & Sons, Inc., 1985.

Williams, H.P. *Model Building in Mathematical Programming*, 2d ed. New York: John Wiley & Sons, Inc., 1985.

Willis, Robert J. *Computer Models for Business Decisions*. New York: John Wiley & Sons, Inc., 1985.

Woolsey, Robert E.D., and Huntington S. Swanson. *Operations Research for Immediate Application: A Quick and Dirty Manual*. New York: Harper & Row Publications, 1975.

Official Releases

American Institute of Certified Public Accountants. *Guide for Prospective Financial Statements*. New York: AICPA, 1992.

__________. Statement on Standards for Accountants' Services on Prospective Financial Information, *Financial Forecasts and Projections*. New York: AICPA, 1985.

__________. Statement on Standards for Attestation Engagements, *Reporting on Pro Forma Financial Information*. New York: AICPA, 1988.

__________. Statement on Standards for Consulting Services No. 1, *Consulting Services: Definitions and Standards*. New York: AICPA, 1991.

Financial Accounting Standards Board. Statement No. 95, *Statement of Cash Flows*. Stamford, Conn.: FASB, 1988.

Periodicals

Annino, Joseph S., and Edward C. Russell. "The Seven Most Frequent Causes of Simulation Analysis Failure—and How to Avoid Them." *Interfaces* (June 1981): 59-63.

Bailes, Jack, Barry Shane, and C. Dean Pielstock. "Using Your PC to Project Capital Funds." *Management Accounting* (July 1988): 59-62.

Ballard, William H. "Ten Ways to Better Electronic Calculating." *Management Accounting* (June 1984): 50-54.

Bissell, Jeffrey L., and Sheldon Needle. "Spreadsheet Planning and Design." *Journal of Accountancy* (May 1986): 110-120.

Blocher, Edward. "Analytical Procedures and the Microcomputer." *Journal of Accountancy* (July 1986): 106-110.

Blumenthal, Phillip L., Jr. "Financial Statements as Elementary Business Models." *NAA Bulletin* 41 (April 1961): 77-84.

Bollom, Williams J., and Jerry J. Weygandt. "Examination of Some Interim Reporting Theories for a Seasonal Business." *Accounting Review* (January 1972): 75-84.

Brock, Terry L. "Multiple Regression on Lotus 1-2-3." *Journal of Accountancy* (July 1986): 106-110.

Bromley, Robert G. "Template Design and Review—How to Prevent Spreadsheet Disasters." *Journal of Accountancy* (December 1985): 134-142.

Brown, Robert M., and Larry N. Killough. "How PC's Can Solve the Cost Allocation Problem." *Management Accounting* (November 1988): 34-38.

Camp, Roger A. "Multidimensional Break-Even Analysis." *Journal of Accountancy* (January 1987): 132-133.

Chan, K.H., Frank L. Sbrocchi, and Neal R. Vanzante. "Forecasting Methods and the Management Accountant." *Cost and Management* (January/February 1980): 40-45.

Chandler, John S., Thomas Trone, and Michael Weiland. "Decision Support Systems are for Small Business." *Management Accounting* (April 1983): 34-39.

Chapman, Charles H. "A Small Business Financial Model." *Management Accounting* (July 1975): 20-29.

Cheng, Thomas T. "Financial Forecasting: Throw Away the Crystal Ball." *Management Accounting* (May 1983): 50-54.

Cloutier, Clive R., and William Barry Mabry. "A Small Bank Adopts a Financial Planning Model." *Management Accounting* (February 1980): 19-21.

Creeth, Richard. "Microcomputer Spreadsheet: Their Uses and Abuses." *Journal of Accountancy* (June 1985): 90-93.

Damon, William W. and Richard Shramm. "Simultaneous Decision Model for Production, Marketing and Finance." *Management Science* (October 1972): 161-72.

Davis, Larry R. "Reporting Financial Information Graphically." *Journal of Accountancy* (December 1987): 108-117.

Dillon, Gadis J. "Getting the Most from Your Forecasting System." *Management Accounting* (April 1984): 28-32.

Frotman, Alan. "AICPA 1985 EDP Survey: Software." *Journal of Accountancy* (November 1985): 128-134.

Fudeman, John H. "Projections on a Microcomputer." *Journal of Accountancy* (January 1985): 108-111. (Note: "Projections" had a different meaning in 1985, but the sense of the article still applies.)

Fuerher, Walter. "Corporate Modeling: A Selective Focus Will Make It Work." *Managerial Planning* (November/December 1976): 20-23.

Garceau, Linda R. "Lotus 1-2-3 Macros: A Powerful Tool." *Journal of Accountancy* (September 1987): 158-164.

Gass, Saul I. "Decision Making Models: Validation, Assessment and Related Issues for Policy Analysis." *Operations Research* (July/August 1983): 603-631.

Gershefski, George W. "Building a Corporate Financial Model." *Harvard Business Review* (July-August 1969): 61-72.

Gillespie, Jackson F., Janis R. Reader, and John H. Wragge. "Safeguarding Your Spreadsheet." *Management Accounting* (May 1985): 38-42.

Godfrey, James T., and Thomas R. Price. "Accounting Models From an Information Systems Perspective." *Accounting Review* (January 1971): 75-89.

Grant, Robert B. "Mathematically Influenced Decision-Making." *NAA Bulletin* 42 (January 1961): 33-44.

Gray, Jack, and Diane Matson. "Early Warning Systems." *Management Accounting* (August 1987): 50-55.

Hammond, John S. "Dos and Don'ts of Computer Models for Planning." *Harvard Business Review* (March-April 1974): 110-23.

Hayes, Robert H., and Richard L. Nolan. "What Kind of Corporate Modeling Functions Best?" *Harvard Business Review* (May/June 1974): 102-12.

Hetrick, James C. "Mathematical Models in Capital Budgeting." *Harvard Business Review* (January/February 1961): 49-64.

Hoffman, Robert B. "AICPA Computer Survey." *Journal of Accountancy* (September 1988): 146-150.

Hoyle, Robert S. "Capital Budgeting Models and Planning: An Evolutionary Process." *Managerial Planning* 27 (November/December 1978): 24-31.

Jones, Wm. Jarell, and Catherine R. Ward. "Forecasts and Projections for Third-Party Use." *Journal of Accountancy* (April 1986): 100-102.

Kabus, Irwin. "Risk Analysis: The Forgotten Tool." *Management Review* (June 1981): 42-50.

King, Karl G. "Developments in Microcomputer Technology." *Journal of Accountancy* (September 1986) 128-148.

__________. "Recent Developments in Microcomputer Technology." *Journal of Accountancy* (October 1987): 136-150.

Krouse, Clement G. "Model for Aggregate Financial Planning." *Management Science* (June 1972): 555-566.

Krueger, Donald A., and John M. Kohlmeier. "Financial Modeling and What If Budgeting." *Management Accounting* (May 1972): 25-30.

Lawler, William C., and John L. Livingstone. "Profit and Productivity Analysis for Small Business." *Journal of Accountancy* (December 1986): 190-196.

Little, John D.C. "Models and Managers: The Concept of a Decision Calculus." *Management Science* (April 1970): 466-85.

Lococo, Lawrence J. "Selecting the Right Transfer Pricing Model." *Management Accounting* (March 1983): 42-45.

Mahoney, John J., Mark V. Sever, and John A. Theis. "Cash Flow: FASB Opens the Floodgates." *Journal of Accountancy* (May 1988): 26-38.

Mazhin, Reza. "CVP Analysis With an Electronic Spreadsheet." *Journal of Accountancy* (January 1987): 110-116.

McLean, Ephraim R., and Gary L. Neale. "Computer-Based Planning Models Come of Age." *Harvard Business Review* (July-August 1980): 46-48.

Naylor, Thomas H. "Why Corporate Planning Models?" Part 1. *Interfaces* (November 1977): 87-94.

Needle, Sheldon, and Duane R. Milano. "Multi-User Accounting Systems: The Pros and Cons of Sharing." *Journal of Accountancy* (February 1986): 86-94.

Neuwirth, Paul D. "Computer Forecasting—No More Surprises." *Financial Executive* (October 1974): 58-62.

Pallais, Don, and Robert K. Elliott. "Prospective Financial Statements: Guidelines for a Growing Practice Area." *Journal of Accountancy* (January 1984): 56-59.

Pallais, Don, and Dan M. Guy. "Prospective Financial Statements. A What-Why-How-and-Who Look at these Engagements." *Journal of Accountancy* (April 1986): 90-99.

Rabinowitz, Mark E. "Downloading to Expand Micro Productivity: A User Perspective." *Journal of Accountancy* (September 1985): 134-142.

Roberts, Edward B. "Strategies for Effective Implementation of Complex Corporate Models." Part 1. *Interfaces* (November 1977): 26-33.

Sealy, C.W. "Financial Planning With Multiple Objectives." *Financial Management* (Winter 1978): 17-23.

Shelton, Fred A., and Jack C. Bailes. "How to Create an Electronic Spreadsheet Budget." *Management Accounting* (July 1986): 40-47.

Simkin, Mark G. "How to Validate Spreadsheets." *Journal of Accountancy* (November 1987): 130-138.

Simon, Herbert A. "Decision Making and Problem Solving." *Interfaces* (September-October 1987): 11-31.

Smith, Donald R. "What a Chief Executive Should Know About Financial Modeling." *Price Waterhouse Review* 18 (1973): 30-41.

Software Digest, Inc. "How Do Spreadsheet Programs Compare?" *Journal of Accountancy* (December 1985): 142-145.

Stilwell, Martin C. "Prospective Reporting and Small Business Clients." *Journal of Accountancy* (May 1986): 68-84.

Tan-Uy, Lily. "Financial Modeling: The Computer as a Planning Aid." *SGV Group Journal* (1980): 76-80.

Taylor, Barbara G., and Lane K. Anderson. "Misleading Graphs: Guidelines for the Accountant." *Journal of Accountancy* (October 1986): 126-135.

Tersine, Richard J., and Walter E. Riggs. "Models: Decision Tools for Management." *Journal of Systems Management* (October 1976): 30-34.

Tyran, Michael R. "Simulation Model Applications." *Management Accounting* (October 1972): 13-18.

Weil, Joseph J. "Using Lotus for Pricing and Break-Even Strategies." *Journal of Accountancy* (July 1987): 112-120.

Wheelwright, Steven C. "Strategy, Management and Strategic Planning Approaches." *Interfaces* (January-February 1984): 19-33.

Whipple, William, III. "How Finance Can Contribute to Strategic Planning." *Journal of Accountancy* (January 1988): 116-121.

Wolfe, Christopher, and Ralph Viator. "Building a Graphics System." *Journal of Accountancy* (February 1987): 96-104.

Yoder, Steven E. "Designing Advanced Spreadsheets for Small Business Clients: An Engagement Report." *Journal of Accountancy* (August 1986): 126-130.

13/100 CONDUCTING A VALUATION OF A CLOSELY HELD BUSINESS

CONTENTS

13/100 CONDUCTING A VALUATION OF A CLOSELY HELD BUSINESS

13/105 INTRODUCTION

.01 Up until the 1920s, a business's selling price was strictly a matter of negotiation between the buyer and the seller and depended primarily on their horsetrading sense. The buyer usually based forecasted profits and cash flow on an eyeball appraisal of the seller's standard of living and status in the community. Since the 1920s, however, the valuation of closely held businesses has become increasingly complex. Business valuation began changing during Prohibition when breweries and distilleries faced substantial losses in the intangible value of their businesses. In response, the Internal Revenue Service (IRS) issued Appeals and Review Memorandum (ARM) 34. ARM 34 suggested using formulas to determine the intangible value of businesses, as well as to value goodwill for estate and gift tax purposes. Practitioners applied ARM 34 by adding the value of the goodwill and other intangibles to the tangible assets in determining a business's total value.

.02 In 1959, the IRS issued Revenue Ruling 59-60, which is regarded as one of the most important rulings concerning valuation. Although Revenue Ruling 59-60 was intended for estate and gift tax purposes only, Revenue Ruling 65-192 expanded its applicability by stating that the methods employed in 59-60 also apply to income and other taxes.

.03 In 1968, the IRS issued Revenue Ruling 68-609, which many practitioners refer to as *the formula approach* or *the excess earnings method*. The intent of 68-609 was to assist in the valuation of intangibles. However, the revenue ruling suggests that "the 'formula' approach may be used for determining the fair market value of intangible assets of a business *only if there is no better basis therefor available*" (italics added for emphasis).

.04 By the late 1970s and early 1980s, the demand for business valuation services was substantial. Many accounting firms were either setting up valuation departments or acquiring entire appraisal firms. This period also saw the emergence and growth of professional appraisal organizations, such as the Institute of Business Appraisers, Inc. and the American Society of Appraisers.

.05 Significant changes in the appraisal field occurred again in the late 1980s and early 1990s. One of these changes, due to a downward slide in the real estate market, resulted in the creation of the Appraisal Foundation, which promulgated the Uniform Standards of Professional Appraisal Practice (USPAP). Also, as a result of economic problems suffered by banks and thrifts, the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA) was enacted. FIRREA mandates the licensing or certification of real estate appraisers. Although intended to affect only real estate appraisals, this legislation has had an impact on accounting firms by restricting services to be rendered in certain situations. Several states have expanded FIRREA's applicability to cover business valuations and personal property appraisals.[1]

.06 USPAP, which are broad standards, must be adhered to when an appraisal is performed for a federally related transaction. The Preamble and Standards 9 and 10 of USPAP provide specific guidelines for developing and reporting business valuations. Professional valuers recommend that USPAP be followed for all types of engagements, even if they are not federally related.

.07 USPAP do not significantly change the manner in which closely held businesses are valued. The basic guidelines provided for business valuers are in Revenue Ruling 59-60, which lists the following eight factors to be considered in the valuation of closely held businesses:

a. The nature of the business and the history of the enterprise from its inception

b. The economic outlook in general and the condition and outlook of the specific industry in particular

c. The book value of the stock and the financial condition of the business

d. The earning capacity of the company

e. The dividend paying capacity

f. The enterprise's goodwill and other intangible values

g. Sales of the stock and the size of the block of stock to be valued

h. The market price of stocks of corporations engaged in the same or a similar business and trading stocks in a free and open market, either on an exchange or over the counter

.08 Revenue Ruling 59-60 discusses each of these factors and the practitioner's consideration of them is a minimum requirement in all business valuations. A good business valuer will also consider other factors, depending on the purpose of the engagement. Frequently, the practitioner will perform additional analyses and procedures to provide the client with a well informed, supportable estimate of value.

.09 The practitioner should be aware that valuation is both an art and a science and, therefore, absolute precision will never be achieved. During the valuation process certain information will be readily available and unquestionable. Other information will require the valuer to use informed judgment and common sense. The conclusions drawn from this

[1] For more information, see Gary R. Trugman, "A Threat to Business Valuation Practices," *Journal of Accountancy* (December, 1991).

information may be considerably subjective, and therefore the practitioner's workpapers and documentation may be questioned, particularly if the appraisal is for a litigation. The practitioner should remain sensitive to the appearance of bias and should be objective in arriving at the final value. The practitioner is advised to consult rule 101 of the AICPA Code of Professional Conduct if the service is provided to an attest client.

13/110 SCOPE OF THIS PRACTICE AID

.01 This practice aid provides practitioners with an overview of the valuation process. It is not intended to be authoritative, nor should it be relied upon solely in rendering an opinion of the value of a closely held business. Instead, it is designed to help the practitioner to understand the valuation process, its applicability to certain types of engagements, and the various methods of valuation, and to find answers to the many questions that arise during business valuation engagements.

.02 In performing business valuation engagements, the practitioner is advised to review appropriate professional literature to determine the accountant's reporting requirements if the report contains financial statements intended for third parties. Particular care should be taken by the practitioner to review the appropriate professional literature to understand prospective financial reporting requirements as they relate to forecasts and projections because valuation is a prophecy of the future. The business valuer must use forecasts and projections in the normal course of the business valuation engagement and cannot rely solely on historical financial statements.

13/115 BUSINESS VALUATION EDUCATION

.01 In performing business valuation engagements, practitioners are advised to determine whether the competency provisions of rule 201, General Standards of the AICPA Code of Professional Conduct, are met. Although accountants have a thorough understanding of financial statements and related matters, they also need to be proficient in the area of appraisals to competently complete an engagement. Usually, being proficient requires an in-depth knowledge of finance, economics, and security analysis and an understanding of appraisal principles and methods.

.02 In order for the practitioner to obtain the competency required to accept a business valuation engagement, appropriate education is required. Courses sponsored by the AICPA, the American Society of Appraisers (ASA), and The Institute of Business Appraisers, Inc. (IBA) will provide practitioners with the minimum education necessary to perform these types of engagements. Self-study courses may help reinforce a level of knowledge; however, they are usually insufficient as the sole method of education.

.03 To foster competency in business valuation, the AICPA, the ASA, and the IBA sponsor accreditation programs in this specialty.

13/120 WHAT WILL BE VALUED?

.01 One of the most important considerations in the valuation process is the determination of what will be valued by the practitioner. In engagements, practitioners sometimes refer to the valuation subject as *the company*, but fail to precisely define what the term encompasses. Generally, the valuation assignment will be to estimate the value of either the equity of the company, components of the equity, or specific assets, and possibly liabilities.

.02 Most small businesses are generally sold as asset sales as compared with stock sales. Frequently, specific assets and liabilities are excluded from the sale and, therefore, the valuation must be clearly defined.

.03 For purposes of this practice aid, the company's equity will be considered the valuation subject. This means that all assets and liabilities will be included in the final estimate of value.

13/125 ENGAGEMENT CONSIDERATIONS

.01 As with any engagement, the practitioner needs to consider several factors before accepting a business valuation assignment. These factors include—

- The purpose and function of the valuation assignment.
- The practitioner's competency to perform the assignment.
- The amount of time required to perform the assignment.
- The scope of the assignment including the possibility of giving expert testimony.
- The type of report required.
- The possibility of a conflict of interest or the appearance of a conflict of interest.

Engagement Letters

.02 As with any assignment, an engagement letter is recommended for business valuation engagements in order to avoid any potential misunderstanding about the assignment. A good engagement letter includes, at a minimum, the following:

a. A description of the scope of the valuation assignment, including a definition of the subject of the valuation

b. The standard of value that will be used, including a definition of the standard

c. The effective date of the valuation

d. The type of report that will be submitted to the client, whether a formal report, a letter report, or an oral report

e. A list of limiting conditions and restrictions on the use of the report by the party or parties that it is intended for

f. An outline of what will be expected of the client in the engagement, such as providing the valuer with a forecast, or signing a representation letter at the end of the engagement, if applicable

g. The method of determining fees and the terms of payment

.03 Examples of an engagement letter, representation letter, and the valuation report cover letter are presented in appendix 13/A.[2]

13/130 PURPOSE AND FUNCTION OF THE BUSINESS VALUATION

.01 The most important elements of a business valuation engagement are the purpose and function of the assignment. The valuation methods employed by the business valuer will be determined by the reason for the engagement. This does not mean that the value will be based on who the client is, but that certain concepts, approaches, and standards of value may be required for certain types of engagements.

.02 For example, if the business valuation is to be done for a decedent's estate, the Internal Revenue Code requires the purpose to be to derive the fair market value, while the function of the valuation will be to include it in the estate tax returns. In this instance, the valuer must use the standard of fair market value, while following the guidance of revenue rulings. However, if the valuation is being done because the practitioner represents a prospective purchaser of the business, the standard of value known as investment value may be used rather than fair market value. In this case, the purpose of the valuation is to determine the investment value, and the function is to value a prospective purchase. The purpose and function of the assignment are critical to determining the standard of value.

.03 Business valuation engagements are performed for a variety of reasons including the following:

- Mergers, acquisitions, and spinoffs

- Allocation of purchase price

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[2] The practitioner can also find illustrative engagement acceptance forms, engagement letters, work programs, and other helpful information for business valuation assignments in the *Guide to Business Valuations* (Fort Worth: Practitioner's Publishing Co., 1991).

- Estate and gift taxes
- Marital dissolution
- Employee stock ownership plans
- Liquidation or reorganization of a business
- Buy-sell agreements
- Stockholder disputes
- Financing
- Ad valorem taxes
- Incentive stock option considerations
- Initial public offering
- Damages litigation
- Insurance claims
- Charitable contributions
- Eminent domain actions

Mergers and Acquisitions

.04 Business valuations are frequently performed when one company acquires another company or when a company is targeted for an acquisition. The transactions may include entire or partial acquisitions or divestitures. Mergers will generally require both companies to be valued while an acquisition may only require a single valuation. The terms of the transaction generally include cash, notes, stock, or a combination of these forms of payment.

Allocation of Purchase Price

.05 Internal Revenue Code Section 1060 requires that, when a business is acquired, a valuation must be performed to support the allocation of the total purchase price to the component parts for income tax purposes. In prior years, both the purchaser and seller would determine its own value and treat the purchase and sale of the assets differently. However, the Tax Reform Act of 1986 requires a uniform allocation of the purchase price based on an appraisal of the underlying assets. The IRS now reviews these transactions more closely than ever to ensure that the purchase price allocation is reasonable and is treated consistently by both the purchaser and the seller. An inappropriate or inconsistent allocation of the purchase price can result in an increased tax liability and, in some instances, penalties.

Estate and Gift Taxes

.06 The valuation of a closely held business interest is important to estate planners as they consider the impact of the unified estate and gift tax credit on lifetime transfers of property. Practitioners are urged to consult the appropriate Internal Revenue Code (IRC) sections for specifics on the unified estate and gift tax credit.

.07 IRC Section 2036(c), relating to estate freeze techniques, was repealed and superseded by a new complex set of rules in Chapter 14 of the IRC. These rules can be advantageous for the client, but the Internal Revenue Code and Regulations include strict provisions for compliance. Practitioners therefore should familiarize themselves with Chapter 14.

.08 In addition, the Internal Revenue Code contains special privileges for the redemption of stock in a closely held company when the owner dies and the value of the stock represents more than 35 percent of the gross estate. Practitioners need to be aware of the alternatives under IRC Section 303.

Marital Dissolution

.09 In a marital dissolution, most of a couple's assets and liabilities are valued regardless of whether a state follows equitable distribution or community property rules. Frequently, one of the assets included in the marital estate is an interest in a closely held business. It is typical to have the business valued in its entirety if it is a small business, but sometimes only a portion of the business would be valued (minority interest) in a large business. Usually, the business is not divided between the spouses. Instead, one spouse keeps the family business and the other receives different assets of equal value as distribution. Since marital dissolution laws vary significantly from state to state, the practitioner must be aware of the rules of the state in which the divorce will take place.

Employee Stock Ownership Plans

.10 An employee stock ownership plan (ESOP) is an incentive ownership arrangement funded by the employer. Generally, employer stock is contributed instead of cash. ESOPs provide capital, liquidity, and certain tax advantages for private companies whose owners do not want to go public. An independent valuer must value the employer's securities at least annually and determine the price per share to support transactions with participants, plan contributions, and allocations within the ESOP. Practitioners are urged to become familiar with the rules promulgated by the Department of Labor before beginning an ESOP engagement.

Liquidation or Reorganization of a Business

.11 Closely held companies with two or more definable divisions may be split up or spun off into separate corporations. Reasons for doing this can include estate tax considerations, family conflict, or sale of only part of the total business. Valuations are usually necessary for tax purposes, financial reporting, and, if applicable, equitable distribution of the assets among family members. In the liquidation of a corporation, the valuer's allocation of the assets distributed to the stockholders may be required to substantiate subsequent depreciation and other deductions claimed.

Buy-sell Agreements

.12 A buy-sell agreement allows a partner or stockholder in a closely held business to acquire the interest of a partner or stockholder who withdraws from the business. The agreement may contain a designated amount or a formula to determine the price that the remaining owners of the entity will pay to acquire the interest. The amount or the formula need to be updated periodically. Payment terms and conditions of sale are also generally provided. A client may ask a practitioner to assist in determining which valuation method is appropriate in such an agreement.

.13 Buy-sell agreements are also used frequently to establish a value for a transaction between the partners or stockholders in the event of death, disability, or retirement. It is common to see different formulas for each in a buy-sell agreement.

.14 In working with the client, the practitioner should caution the client about use of a single formula. Formulas do not always appropriately consider the economic and financial climate at the valuation date, stand the test of time, or achieve the parties' intentions. Therefore, their usage should be limited. Instead, the basis of a buy-sell agreement should be a valuation. If an extensive valuation is required, it should be performed by a qualified valuer.

Stockholder Disputes

.15 Stockholder disputes can range from breakups of companies resulting from disagreements between stockholders to stockholder dissension relating to mergers, dissolutions, and similar matters. Since many states allow a corporation to merge, dissolve, or restructure without unanimous stockholder consent, many disputes have arisen over the years because minority stockholders feel that the action of the majority had a negative impact on them. Dissenting stockholders have filed lawsuits to allow their shares to be valued as if the action never took place.

.16 In such cases, the value of the stockholder's interest is what it was immediately before the change and does not reflect the effect of the proposed change on the value of the corporation. In these instances, value is generally determined according to the standard of fair value based on case law within the state of incorporation. When a valuer accepts an engagement relating to a stockholder action, it is advisable to request the client's legal counsel to clarify the value definition used in the particular state. The valuer cannot address such issues as control premiums and minority discounts without adequate legal information about the value definition to be used.

Financing

.17 A valuation of the business may provide a lender or potential investors with information that will help the client obtain additional funds. Financial statements present information about a business based on historical amounts. For a new business, the traditional statement may closely reflect estimated current value. However, this is generally not the case for an established business that has developed intangible value over the years. Assets with intangible value, such as special trademarks, patents, customer lists, and goodwill, may not be reflected in the financial statements. Furthermore, other assets and liabilities of the business, such as real estate and equipment, may be worth significantly more or less than their book value as recorded under GAAP.

Ad Valorem Taxes

.18 In some jurisdictions, ad valorem taxes are based on the value of property used in a trade or business. Various entities are subject to ad valorem taxation, and, therefore, the fair market value of such properties frequently must be determined to ascertain the amount of tax. Regulations and case law differ significantly from jurisdiction to jurisdiction. To determine the appropriate standard of value for these properties, the practitioner needs to consult the client's lawyer.

Incentive Stock Option Considerations

.19 Many large companies provide fringe benefits in the form of incentive stock option plans that allow their employees to purchase the company's stock at a certain point in time at a stated price. Employees pay no taxes when the incentive stock option is granted or when the stock option is exercised. Employees do pay tax, however, when selling the stock received through the exercise of the option. To qualify as an incentive stock option, a stock's option price must equal or exceed its fair market value when the option is granted. Accordingly, the valuation of a closely held company has a significant impact on its incentive stock option plan.

Initial Public Offering

.20 A substantial amount of legal and accounting services must be rendered to bring a private business to the public marketplace. From a financial standpoint, the corporation's accounting records and statements are carefully reviewed and amended, if necessary. The capital structure may need enhancement, and executive benefit plans may need revisions. More important, the corporation's stock is valued for the initial offering.

.21 The underwriter must exercise a great deal of judgment about the price the public may be willing to pay for the stock when it is first offered for sale. Factors such as prior years' earnings, potential earnings, general stock market conditions, and stock prices of comparable or guideline companies need to be considered to determine the final offering price. The client may ask the practitioner to support the offering price by performing a valuation.

Damages Litigation

.22 Many court cases involve damages. Some seek compensation for patent infringements, illegal price fixing, breach of contract, lost profits, or lost business opportunities, while others relate to lender liability, discrimination, and wrongful death actions. The practitioner may also be asked to perform hypothetical valuations of a company to determine the amount of damages resulting from the loss of business value to the stockholders. These types of valuations generally require the valuer to value the company twice. The first valuation determines the value of the company at the present time. The second valuation is based on what the company would have been worth had a certain action taken place or not taken place. The difference is generally a measure of damages.

Insurance Claims

.23 Cases involving risk-insurance claims focus on the loss of income because of business interruptions and the value of such separate business assets as inventory and equipment. A valuation may be required to support the owner's position or the insurer's position. Loss of income would be determined on documentable lost profits. The value of individual business assets such as inventory and equipment would be based on the replacement cost of the assets.

Charitable Contributions

.24 Owners of closely held businesses may wish to give all or a part of their interest in a business to a favorite charity. Although shares of stock in a closely held business are donated to charity infrequently, this option exists for owners, and the practitioner must be aware of the rules about the deductibility of such gifts. Current tax laws encourage charitable donations by permitting a tax deduction equal to the fair market value of certain appreciated capital gains property. For gifts of property in excess of $500, the IRS requires that donors provide documentation to support the deduction for the year in which the gift was given. If the amount of the tax deduction warrants the expense, donors can obtain a valuation of the gift. If the value of the gift exceeds $5,000, an appraisal is required.

Eminent Domain Actions

.25 An eminent domain action takes place when government exercises its right to take over property and must compensate the owner for any resulting reduction in the value of the property. For example, a business may have to forfeit a prime location to accommodate the widening of a street. Although the business can relocate, its value may be adversely affected during the period of the move or as a result of changing locations. An expert opinion on the monetary impact of the condemnation may be necessary to support the business owner's claim or the government's offer.

.26 As part of the business valuation, the practitioner should become familiar with the demographics of the area and should assess the impact of the change in location. In assessing the impact, the practitioner needs to remember that many valuers have said that the key to a business's success is "Location, location, location." Projections may be required in order to calculate the losses. A valuation of the business, both before the condemnation and after the move, may be required. The expenses of the actual move need to be considered in the valuation.

13/135 TAX CONSIDERATIONS

.01 Income and capital gains taxes generally do not have a direct impact on the value of a closely held business. However, to the extent that tax obligations represent a liability, the practitioner considers them in determining the overall value of a closely held business. Some aspects to evaluate include the form of the business, potential tax deficiencies, and IRS guidelines. Depending on the purpose and function of the valuation, IRS guidelines must be considered. Internal Revenue Code Section 1060 requires that purchase price allocations be reasonable and consistent. The buyer and seller in a business acquisition transaction must consider the tax aspects of the form of the acquisition (stock vs. assets), non-compete agreements, goodwill, and similar items. These considerations are beyond the scope of this practice aid.

Form of the Business

.02 A valuer must consider the legal form of the business in analyzing the financial and other information that affects the value of the company. If the business is a proprietorship, a partnership, or an S corporation, certain tax attributes pass through to the individual owners. However, if the business is a C corporation, the entity accrues and pays income taxes. The practitioner should be aware of the tax implications of each business type and be satisfied that all tax liabilities have been considered.

.03 It is especially important that the practitioner understand the tax implications when comparing guideline company or industry information with the subject of the valuation. The practitioner needs to be certain that the information being used for comparison purposes is consistent throughout the valuation. Guideline company information, particularly from the public marketplace, is reported on an after-tax basis. Furthermore, returns on investments in the marketplace and ratios derived from the marketplace are also generally reported on an after-tax basis. Consistency is essential for the proper development of a discount rate, a capitalization rate, or a methodology derived from guideline company ratios.

Potential Tax Deficiencies

.04 The business valuer should determine whether the subject company has any potential tax deficiencies. Generally, this information is available from the company's accountant or tax preparer. If a tax provision falls into a gray area, the valuer should identify in a valuation report any contingent liabilities that may affect the entity's value, even though the liability cannot be quantified. Furthermore, the valuer must be aware that penalties for underpayment of taxes may result if the IRS disallows deductions whether they are based on the actions of the taxpayer or the tax preparer or on the valuation. To avoid penalties for willfully understating a tax liability the valuer is careful to fully document and support any position taken in a business valuation.

Internal Revenue Service Guidelines

.05 Practitioners need to review and consider each of the following IRS guidelines in valuing a closely held business:

a. ARMs 34 and 68, which discuss the formula method for valuing goodwill, have been superseded.

b. Revenue Ruling 59-60 is the most important treatise on factors to consider, at a minimum, to perform a competent valuation.

c. Revenue Ruling 65-192 modifies Revenue Ruling 59-60 by providing that the theory in 59-60 is applicable to income and other taxes as well as to estate and gift taxes.

d. Revenue Ruling 65-193 approves only those valuation methods with which tangibles and intangibles can be separately determined.

e. Revenue Procedure 66-49 deals with how the IRS arrives at valuations. It also provides additional insight into how a practitioner might report information to a client in a valuation report.

f. Revenue Ruling 68-609 discusses the return on tangible assets and capitalization rates for intangibles when a formula approach can be used. This ruling clarifies and expands ARM 34. (Practitioners should note that the rates provided in Revenue Ruling 68-609 are examples only and are not intended to be the only rates used in the application of this methodology.)

g. Revenue Procedure 77-12 describes acceptable methods for allocating a lump-sum purchase price to inventories.

h. Revenue Ruling 77-287 was intended "to provide information and guidance to taxpayers, Internal Revenue Service personnel, and others concerned with the valuation, for Federal tax purposes, of securities that cannot be immediately resold because they are restricted from resale pursuant to Federal security laws." This revenue ruling covers marketability discounts related to restricted stock.

i. Revenue Ruling 81-253, which describes the Internal Revenue Service's position on the allowance of minority discounts in valuing stock of a closely held family corporation transferred to the donor's children for Federal gift tax purposes, has been superseded by Revenue Ruling 93-12.

j. Revenue Ruling 83-120 amplifies Revenue Ruling 59-60 by specifying additional factors to be considered in valuing common and preferred stock of a closely held corporation for gift tax and recapitalization purposes.

k. Revenue Ruling 85-75 basically provides that the IRS will not be bound to accept values that it accepted for estate tax purposes as the basis for determining depreciation deductions or income taxes on capital gains from a subsequent asset sale.

l. Revenue Ruling 93-12, which replaces Revenue Ruling 81-253, allows appropriate minority discounts to be applied when valuing minority interests of family members in the closely held corporation. Formerly, the IRS looked to family attribution rules as a means to disallow these minority discounts.

m. In the publication entitled *IRS Valuation Guide For Income, Estate and Gift Taxes — The IRS Appeals Officer Valuation Training Program* (Chicago: Commerce Clearing House, 1987), there is also a detailed review of IRS positions on valuations.

13/140 VALUATION CONCEPTS

.01 Time has proven that expert valuation of closely held businesses combines both art and science. The business valuer finds that the valuation results will vary according to the methods used, and frequently the most difficult part of an engagement is to reconcile the various values derived through different acceptable valuation techniques.

.02 The complexity of the valuation process can cause the inexperienced practitioner to make mistakes. Often overlooked are two of the fundamental principles in valuation theory, the principle of substitution and the principle of future benefits.

.03 The principle of substitution states that "the value of a thing tends to be determined by the cost of acquiring an equally desirable substitute,"[3] while the principle of future benefits

[3] Miles, Raymond C., *Basic Business Appraisal* (New York: John Wiley & Sons, 1984), p. 22.

states that "economic value reflects anticipated future benefits."[4] These two valuation principles are as important to the valuation process as the laws of supply and demand are to economics. Valuation theory is driven by these very important principles.

Standard of Value

.04 The standard of value to be used in a valuation will depend upon the purpose of the business valuation engagement, rather than the client of the appraiser. Basing the choice of a standard of value on which party the practitioner represents is considered inappropriate advocacy and, therefore, should be avoided.

.05 Many standards of value are widely accepted. In some instances, they are included in statutes or in case law, but usually they vary from jurisdiction to jurisdiction. Some of the more frequently used standards of value are fair market value, fair value, investment value, and intrinsic value.

.06 **Fair Market Value.** Probably the most commonly used standard of value is fair market value. Revenue Ruling 59-60 defines fair market value as—

> . . . the amount at which the property would change hands between a willing buyer and a willing seller, when the former is not under any compulsion to buy, and the latter is not under any compulsion to sell, both parties having reasonable knowledge of relevant facts.

.07 This definition implies that the value is the most probable price in cash or cash equivalent that would be paid if the property was placed on the open market for a reasonable period and, in all likelihood, assumes the existence of a covenant not to compete. This definition is similar to that which appears in the "Market Value" section of the Uniform Standards of Professional Appraisal Practice. The other standards of value discussed in this section have evolved over time through literature and case law.

.08 **Fair Value.** The definition of fair value in a business valuation context varies from state to state. The definition has been developed from case law, primarily in dissenting stockholder actions. The practitioner should obtain the definition of value from the client's legal counsel based on the case law in the jurisdiction in which the litigation will take place.

.09 **Investment Value.** The investment value of a closely held company is the value to a particular buyer as compared with the population of willing buyers. The investor may have specific investment criteria that must be fulfilled in an acquisition. For example, a purchaser may decide that, as owner-manager, his or her compensation must be at least $80,000 per year. In addition, the business must have the ability to pay any indebtedness resulting from the

[4] *Ibid.*, p. 27.

purchase from operating cash flow over a period of no longer than five years. This value is specific to the individual rather than to all prospective purchasers on the open market, whose standard would be fair market value.

.10 **Intrinsic Value.** Intrinsic value is usually used to value stock by a financial analyst. The intrinsic value of a stock is generally considered to be the value based on all the facts and circumstances of the business or the investment. Financial analysts in a brokerage firm often ignore the fluctuations of the stock market in determining the intrinsic value of a specific stock.

Choosing the Appropriate Standard of Value

.11 As mentioned earlier, the appropriate standard of value and valuation methods depend upon the purpose and function of the engagement. For example, if the engagement is for estate and gift tax purposes, the standard of value will be fair market value and the emphasis will be on methods suggested in Revenue Ruling 59-60, which will use data from the marketplace, particularly from guideline companies.[5]

.12 In a dissenting stockholder lawsuit, the standard of fair value, which varies by state law, would generally be used. Potential acquisitions would be based on either investment value or fair market value with an emphasis on discounted cash flow methods of valuation. Marital dissolutions frequently rely on fair market value, although the definition of this standard of value varies from state to state. The valuation methods will depend on case law in the jurisdiction of the divorce, as well as the standard of value selected for the proceedings.

13/145 BASES OF VALUATION

.01 Two fundamental bases on which a company may be valued are (*a*) as a going concern and (*b*) as if in liquidation. The value of a company is deemed to be the higher of the two values determined under either a going-concern valuation or a liquidation valuation. This approach is consistent with the real estate appraisal concept of highest and best use, which requires an appraiser to consider the optimum use of the property being appraised under current market conditions.

.02 Generally, a business's highest and best use is considered to be the same line of business as is currently being conducted. If a business will command a higher price as a going concern, then it should be valued as such. Conversely, if a business will command a higher price if it is liquidated, then it should be valued as if in orderly liquidation. However, in all

[5] Revenue Ruling 59-60 discusses comparative companies, but the term promulgated by the American Society of Appraisers is *guideline companies*. This term implies that no two companies are truly comparable, but information about companies similar to the one being valued can provide guidance in the valuation process.

business valuation assignments, the purpose of the engagement will play an important role in determining the appropriate methods to be used.

Approaches to Value

.03 Going concern value is based upon the company's earnings power and cash generation capability as it continues in business. The foundation for business valuation methodology is similar to that which has been used in valuing real property for many years. The three basic approaches to determine value as a going concern that should be considered by the appraiser are:

a. The market comparison approach

b. The asset-based approach

c. The income approach

.04 Within each of these approaches, there are many acceptable valuation methods. Professional appraisal organizations, as well as USPAP, require the valuer to consider as many methods as may be applicable to the facts and circumstances of the property being valued. It is then up to the valuer's informed judgment to reconcile the results of these various methods and arrive at a final value.

.05 **The Market Comparison Approach.** The market comparison approach is the most direct approach for establishing the market value of a business. The methods included in this approach are the comparable sales method, the public comparables method, and various industry methods or rules of thumb. These methods are used to determine the value of the entire business enterprise rather than only components thereof. Each of these methods has distinct advantages and disadvantages.

.06 *Comparable sales method.* To use the comparable sales method, the valuer locates similar companies that have been bought or sold and compares them with the subject of the valuation. For example, if the valuation subject were a hardware store, the valuer could search for the sale prices of ten hardware stores that were similar to the valuation subject. If each of the ten hardware stores sold for $200,000, the logical conclusion would be that the valuation subject would also be worth $200,000.

.07 Unfortunately, in practice, reliable data on sales of similar companies is insufficient. Nevertheless, the valuer has an obligation to attempt to discover transactions that have taken place in the market. Sources of this information include business brokers, trade organizations, and the market data file available to members of the Institute of Business Appraisers, Inc. Appendix 13/B includes a sample printout from the market data file of the IBA.

.08 The advantage of the comparable sales method is that it uses actual market data to determine market values. Also, it is easily understood by lay persons, and as such, is a popular method to be used before jurors if the valuation will be used in expert testimony. Even if entire businesses cannot be valued using this method, many of the components of a business can be. For example, automobiles, inventory, and other assets can be valued directly from the marketplace. This methodology is discussed in more detail in section 13/145.21, "The Asset-based Approach."

.09 The disadvantage of the comparable sales method is that it requires a reasonably active market for the type of business being valued. Information is more readily available for larger companies because stocks are traded publicly on a daily basis. Smaller closely held businesses, however, are not traded as frequently, and, therefore, information about such transfers is generally very difficult to obtain.

.10 *Public comparables method.* As mentioned earlier, the term *comparable companies* has generally been replaced with the term *guideline companies.* Some valuation methods apply ratios that are derived from a group of guideline companies in the public marketplace that are considered comparable to the valuation subject. The most widely known procedure is the application of a price earnings ratio to the valuation subject in order to estimate its value.

.11 Although this method is common, other ratios may be used as well. Some of the commonly used ratios are:

- Price/net earnings
- Price/pre-tax earnings
- Price/cash flow
- Price/revenues
- Price/dividend capacity or dividend yield
- Price/operating income
- Price/gross profit
- Price/book value

.12 In using these ratios, the practitioner should be aware that earnings and cash flow are defined in various ways. Some appraisers will use gross cash flow while others will use net cash flow. A discussion of cash flow is beyond the scope of this practice aid. However, the practitioner is advised to consult valuation literature on the subject in order to obtain a sufficient understanding of these methods.

.13 Once the ratios are derived from the marketplace, they must be adjusted to the differences between the valuation subject and the guideline companies. Generally, risk and other characteristics play an important part in the process of adjusting the ratios. To make adjustments, the practitioner considers at least the following factors:

a. Local, regional, national, and international economic risk.

b. Growth expectations of the valuation subject compared with the guideline companies and the stability of the business.

c. The operating risks of the business, particularly the fixed and variable cost structure as compared with the guideline companies.

d. The financial structure of the subject company as compared with the guideline companies. In particular, if the capital structure is such that the debt to equity relationship deviates from that of the guideline companies, the valuer may decide to use earnings before interest and taxes (EBIT) or earnings before depreciation, interest, and taxes (EBDIT), rather than net earnings or cash flow.

.14 The ratios derived from the guideline companies have to be adjusted to reflect the valuation subject in order to ensure consistency in the analysis. The adjustments allow a meaningful comparison.

.15 The advantage of using the ratios of comparable publicly traded companies is that the prices in the stock market are set by many transactions between actual buyers and sellers. A disadvantage of using this methodology is that it is difficult to find companies similar enough to the valuation subject and therefore such comparisons are frequently suspect. Another disadvantage is that trading on the public stock market consists of minority stock transactions. It is difficult to compare a marketable minority interest to a non-marketable controlling interest, which is frequently the task at hand.

.16 A third disadvantage is that information is frequently calculated differently depending on the source of data, and incorrect conclusions can result if the valuer is not careful to ensure consistency in the application of the methodologies. For example, price earnings ratios can be based on the last twelve months' earnings, the last fiscal year's earnings, or the next fiscal year's forecasted earnings. Each of these produces a different ratio. Therefore the practitioner needs to be careful. In appendix 13/A, schedule 13A-4.10 illustrates valuations based on guideline company information.

.17 *Industry methods (rules of thumb).* Many industries and professions use rule of thumb formulas to determine value. However, if these formulas are the only methods used, an inappropriate valuation may result. Nevertheless, the valuer should not ignore what is being done in the industry. Frequently, an industry rule of thumb provides a representation of the perception that people have in the marketplace and should be one of the methods used in valuing the closely held business.

.18 Relying on an uninformed rule of thumb can be dangerous. For example, the rule of thumb for the valuation of an accounting practice is that it is typically valued at between 50 and 150 percent of gross fees. Therefore, an accounting firm with gross billings of $500,000 per year would be between $250,000 and $750,000. This wide range should indicate the potential danger of applying an uninformed rule of thumb. In reality, after an investigation of the quality of the practice, the nature of the clients (whether they are audit, accounting, tax, or consulting clients), the collection history of the clients, and many other qualitative factors, the practitioner may determine that the value should be based on gross fees, but that it will be narrowed down with informed judgment. The practitioner avoids pulling a percentage out of thin air and, if possible, quantifies any factors used in the valuation process.

.19 For those industries that have a considerable amount of merger and acquisition activity, a valuer can often telephone the treasurers or chief financial officers of closely held companies to find out the valuation methodologies they use. After calling several of these people, the practitioner may have a better understanding of what rules of thumb are being used in the industry. The practitioner must be careful, however, because the terms of each merger or acquisition transaction may have an impact on the value. The advantage of a rule of thumb is it provides a reality check on the other valuation methods used by the valuer.

.20 Several publications provide rules of thumb and describe what is occurring in the marketplace. However, these publications may not provide the same rules of thumb for an industry.[6]

.21 **The Asset-based Approach.** The asset-based approach to valuation is also referred to as the *cost approach* or the *replacement cost approach.* With this approach, each component of a business (including the liabilities) is valued separately. The values are totalled and the liabilities are subtracted to derive the total value of the enterprise. The valuer estimates value as the cost of replacing the individual assets and liabilities of the business. This approach cannot be used alone because it cannot be applied easily to intangible assets. Included in this approach are the adjusted book value method and the liquidation value method.

.22 *Adjusted book value method.* The most commonly used method in the asset-based approach is the adjusted book value method. In this method, all of the subject's assets and liabilities are valued at fair market value as of a certain valuation date. The practitioner needs to be careful to avoid a frequent error in applying this method. The error is to reduce the value of the assets and liabilities to provide for capital gains taxes in the event these assets are sold.

.23 The adjusted book value method is often used to appraise not-for-profit organizations and such asset intensive businesses as holding companies, manufacturing companies, and some distribution companies. It is generally not used to value service businesses and distribution businesses that have few assets. Nor is it usually used to appraise intangible assets or minority interests of stockholders who have no control over the sale of the assets. An illustration of this method is provided appendix 13/A, schedule 13A-4.6.

.24 *Liquidation value method.* Another method under the asset-based approach is the liquidation value method. Liquidation value assumes that a business has a greater value if its individual assets are sold to the highest bidder and the company ceases to be a going concern. According to Shannon Pratt, an authority in business valuation, "Liquidation value is, in essence, the antithesis of going concern value. Liquidation value means the net amount the

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[6] Industry information is provided in Glenn M. Desmond's and John A. Marcello's *Handbook of Small Business Valuation Formulas* (Los Angeles: Valuation Press, 1993), Thomas L. West's *Business Broker's Reference Guide* (Concord, Mass.: Business Brokerage Press, 1993), and Thomas L. West's and Jeffrey D. Jones' *Handbook of Business Valuation* (New York: John Wiley & Sons, Inc., 1992).

owner can realize if the business is terminated and the assets sold off in piecemeal."[7] Pratt further states that—

> . . . it is essential to recognize all costs associated with the enterprise's liquidation. These costs normally include commissions, the administrative costs of keeping the company alive until the liquidation is completed, taxes, and legal and accounting costs. Also, in computing the present value of the business on a liquidation basis, it is necessary to discount the estimated net proceeds at a rate reflecting the risk involved from the time the net proceeds are expected to be received back to the valuation date.[8]

Therefore, the liquidation value of the business is usually less than the liquidation value of its assets. In appendix 13/A, schedule 13A-4.6 provides an illustration of this method.

.25 **The Income Approach.** The income approach to valuation is based on the assumption that an investor would invest in a property with similar investment characteristics, but not necessarily the same business. The computations used with the income approach generally determine the value of the business to be equal to the expected future benefits divided by a rate of return. This approach involves capitalization, which is the process of converting a benefit stream into value. The value derived is the value of the operating assets and liabilities of the entity. The nonoperating or investment assets are then added to the value as determined to obtain the value of the enterprise.

.26 Some of the valuation methods included in the income approach are:

a. Capitalization of benefits method

b. Discounted future benefits method

c. Excess earnings method

.27 The capitalization of benefits method places a value on a single benefit stream that is forecast to be consistent in the future. If a company has a stable track record and its future operating results are forecast to be at a consistent level, the capitalization of benefits method is usually appropriate. The discounted future benefits method requires a year-by-year estimate of benefits with the results being discounted to present value. The discounted future benefits method would be applicable when the subject company is expected to have cyclical results and, therefore, a fluctuating benefit stream.

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[7] Pratt, *Valuing A Business* (Homewood, Ill.: Dow Jones-Irwin, 1989), p. 29.

[8] *Ibid.*

.28 To use the income approach, the valuer must select the appropriate benefits stream to be capitalized or discounted. The benefits may include after-tax income, pre-tax earnings, cash flow, dividends, excess earnings, earnings before interest and taxes (EBIT), earnings before depreciation, interest, and taxes (EBDIT), or any other elements considered to be appropriate under the circumstances. The capitalization rate or discount rate to be used will vary according to the benefits stream being capitalized or discounted. A common error is to apply the same rate to different benefits streams. The reasons for using different rates are discussed under "Discount and Capitalization Rates" (section 13/150).

.29 The excess earnings method is a hybrid of the asset-based and income approaches.

.30 *Capitalization of benefits method.* The capitalization of benefits method can be expressed in the following formula:

Value = Benefits ÷ Rate

where

Benefits	=	after-tax earnings pre-tax earnings gross cash flow net cash flow dividends EBIT EBDIT other appropriate elements
Rate	=	required rate of return applicable to the benefits stream capitalized

.31 The benefits stream to be capitalized can vary. Some valuers prefer to use cash flow rather than earnings, but there is no single approach. Each valuation will depend on the availability of data. Cash flow may be more appropriate if it is known that capital expenditures, debt repayment, or working capital are necessary to finance future growth.

.32 The starting point in this method of valuation is to obtain or prepare historical financial statements for an appropriate period, usually 5 years. These statements are then normalized if the valuer is estimating the value of a controlling interest in the enterprise. Since minority interests, in many cases, have a lack of control over the items being adjusted, the normalization process may not be appropriate for an interest that does not possess the ability to control these items. This normalization process involves adjusting items in the financial statements that are not considered to be normal operating expenses for the subject business. The result should be economic financial statements rather than those that are GAAP or tax oriented. Some of the items commonly adjusted in the financial statements are:

- Owner's compensation
- Owner's perquisites

- Entertainment expenses
- Automobile expenses
- Compensation to family members
- Rent expenses (if not an arm's-length lease)
- Interest expenses
- Nonoperating expenses
- Depreciation or amortization

In appendix 13/A, schedule 13A-4.13 provides an illustration of the normalization process.

.33 Once the financial statements have been normalized, the valuer uses the adjusted information as a basis for the valuation. This information can then be used to forecast the future operating results of the business as well as analyze the economic return to the owner. The practitioner should not average the historical figures unless the outcome reflects the anticipated financial results of the subject business. Schedule 13A-4.8 in appendix 13/A provides an illustration of the capitalization of benefits method.

.34 *Discounted future benefits method.* The discounted future benefits method is used when the earnings or cash flow of the valuation subject is expected to differ substantially from current operating results. This method requires that a forecast be made for an appropriate number of years. The forecasted results are then discounted to present value based upon a rate of return that reflects the risk associated with the benefits stream.

.35 Although there is no consensus among valuers about the number of years to be forecast, good valuation practice indicates that the period to be used includes the year after a stabilized benefits stream is achieved. Here also, the practitioner should avoid a common error of resorting to a five- or ten-year period, which may not always be appropriate.

.36 The formula used to estimate value under this method is illustrated in table 13-1 on the next page.

.37 *Excess earnings method.* The excess earnings method, which is also known as the formula approach, is probably the most widely used method of appraisal, particularly for small businesses and professional practices. This hybrid of the asset-based approach and the income approach is based on Revenue Ruling 68-609, which provides a method for valuing intangible assets.

.38 The excess earnings method involves valuing the subject's tangible assets and liabilities at fair market value and adding an amount that represents its intangible value. The net tangible assets are valued according to the adjusted book value method, which was described earlier in ¶13/145.22. The capitalization of excess earnings is used to value the intangibles.

Table 13-1
Application of Discounted Future Benefits Formula

The formula for the discounted future benefits method is as follows:

$$\text{Present Value} = \Sigma \frac{I_n}{(1+i)^n} + \frac{TV_t}{(1+i)^t}$$

where

I	=	Forecasted income (cash flow)
n	=	Year in which the income is achieved
i	=	Required rate of return
TV	=	Terminal value, which is the estimated income stream during the stabilized period
t	=	Year of stabilization

The following illustrates the application of the formula:

Year	Forecasted Net Income	x	26% Present Value Factors	=	Present Value Future Income
1	$ 47,900	x	.79365	=	$ 38,016
2	53,100	x	.62988	=	33,447
3	59,700	x	.49991	=	29,845
4	62,800	x	.39675	=	24,916
5	65,700	x	.31488	=	20,688
TVx5	328,500[9]	x	.31488[10]	=	103,438
					$ 250,350

In appendix 13/A, schedule 13A-4.13 provides an illustration of this method.

[9] TVx5 calculated as follows: $65,700 x 1.05 (assumed growth) = $68,985
Discount Rate minus Growth (.26 - .05) = .21

Capitalizing $68,985 @ 21% = $328,500

[10] The terminal value is usually discounted at the same rate as the final year of the forecast.

.39 Excess earnings are derived by forecasting normalized annual net income for the entity, as is done in other income-approach methods. Then, a reasonable return on the net tangible assets is subtracted from the normalized net income to determine the excess earnings. These excess earnings are then capitalized to arrive at the intangible value of the enterprise. Schedule 13A-4.9 in appendix 13/A provides an illustration of this method.

.40 The practitioner needs to understand the theoretical basis of this method to avoid making many of the common errors that can occur. The following are important guidelines for using this method:

a. Since valuation is a "prophecy of the future," the valuer should estimate the normalized annual future income. A common error is to calculate a weighted average net income for the five prior years. The revenue rulings make clear that using a weighted average is incorrect unless it reasonably reflects future expectations.

b. The reasonable return on the net tangible assets should be based on the level of risk associated with these assets, as well as the returns available in the market. The theory behind this assumption is that if a business owner invested in an investment other than the business assets, a return on investment would be received. Therefore, the investment in assets should also generate a return on investment that is unrelated to the intangible value of the enterprise.

   The return on investment can be determined by reviewing what other investments are paying. For example, if an investor can buy U.S. Treasury Bonds and receive an 8-percent return, the return on accounts receivable, furniture, machinery, and so forth, should be higher to reflect the amount of risk related to the investment in these assets.

   A common error to avoid is considering the example return of 8 to 10 percent given in Revenue Ruling 68-609 as gospel. The rate must reflect risk and can differ from the example, depending on the valuation date, composition of the assets, and other factors.

c. The capitalization rate chosen must reflect the appropriate amount of risk relating to intangible assets. The example of 15 to 20 percent in 68-609 may be inappropriate. Generally, the capitalization rate for intangible assets will be higher than 20 percent (see the discussion on capitalization rates).

d. The excess earnings method should be used only if no better method is available to determine the value of the intangibles. Frequently, the enterprise can be valued with a different method, possibly from an income approach that calculates the tangible and intangible value.

13/150 DISCOUNT AND CAPITALIZATION RATES

.01 One of the most difficult tasks the business valuer faces is selecting an appropriate discount or capitalization rate. Before making a selection, however, the valuer must understand the distinction between these two rates. Although the terms *discount rate* and *capitalization rate* are often used interchangeably, the rates are, in fact, different. In appendix 13/A, schedule 13A-4.7 illustrates a method of determining discount and capitalization rates.

.02 The discount rate represents the rate of return that an investor requires to justify investing in an asset because of the amount of risk associated with the investment. For example, an investor may expect a 5-percent return on a certificate of deposit from a bank, a 10-percent return on a corporate bond, and a 20-percent return on junk bonds. Usually, the higher the risk, the higher the required return. The discount rate is used to derive the present value factors, which are used to discount a stream of future benefits to their present value.

.03 Depending upon the information available from the market, a valuer will use either a pre-tax or after-tax discount or capitalization rate. This will primarily depend upon how the typical buyers and sellers are motivated in consummating transactions. The resulting value will be the same regardless of whether a pre-tax or an after-tax rate is used. This can be illustrated by the following example.

.04 Assume that the value of XYZ, Inc. is being determined using a capitalization of income method. XYZ, Inc. has a forecasted pre-tax income of $100,000 and an after-tax income of $65,000 (assumes a 35% tax rate). If the valuer has determined that the appropriate capitalization rate based on pre-tax information in the market was 20 percent, the valuation result would be as follows:

	Pre-Tax	*After-Tax*
Forecasted Income	$100,000	$ 65,000
Capitalization Rate	20%	13%[2]
Estimated Value	$500,000[1]	$500,000[3]

1 $100,000 ÷ .20 = $500,000
2 20% x (1 - .35) = 13%
3 $65,000 ÷ .13 = $500,000

.05 A capitalization rate is generally derived from the subject's discount rate. It is used primarily as a divisor to determine value. The basis of the relationship between the discount and capitalization is the assumption that the business has a perpetual life and its annual growth will be constant. The relationship is expressed as follows:

Discount Rate - Growth Rate = Capitalization Rate

.06 The valuer needs to use informed judgment in selecting the growth rate. The company's historical growth, the projected growth of the industry, and many other factors (including but not limited to management goals, ability to achieve desired growth, borrowing power) should be considered in the determination of the growth rate. The rate should reflect long-term growth rather than only that which is projected for the following year. The practitioner needs to apply good judgment because an exceptionally high growth rate may not be achievable by the company. Experts in finance generally expect the long-term growth of a company to average from 3 to 5 percent. However, the valuer needs to support the growth rate selected.

.07 The discount and capitalization rates used will depend on what is being discounted or capitalized. The possibilities include:

- Net earnings (after tax)
- Net income (pre-tax)
- Gross cash flow[11]
- Net cash flow[12]
- Excess earnings
- Dividends/dividend-paying capacity
- EBIT
- EBDIT

.08 The determination of what will be discounted or capitalized will depend on various factors, including availability and reliability of data. The amount of risk associated with the valuation subject should be the major consideration in determining an appropriate rate. (The assessment of this risk is of great importance throughout the valuation process.) The valuer also considers the alternative rates of return on comparable investments available to the "willing buyer." This is the principle of substitution at work.

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[11]
	Normalized Net Income
+	Normalized Non-Cash Charges
	Gross Cash Flow

Both gross cash flow and net cash flow (see footnote 12) as used in the valuation context differ from the traditional accounting definitions as described in FASB 95. The valuer is recommended to consult authoritative literature in performing these types of engagements.

[12]
	Gross Cash Flow
-	Anticipated Capital Expenditures
-(or +)	Working Capital necessary to support growth (or generated due to negative growth)
-(or +)	Debt balance due to borrowings forecasted to fund growth net of principal repayments
	Net Cash Flow

.09 Revenue Ruling 59-60 lists eight factors to consider in valuing a closely held stock. The factors include "the economic outlook in general and the condition and outlook of the specific industry in particular." Many practitioners include an analysis of the economy and the industry in their valuation reports. This analysis assists in determining appropriate discount or capitalization rates.

.10 The three primary reasons for performing this analysis are—

a. To assess the valuation subject's performance compared with the company's industry given the general economic conditions.

b. To forecast financial results for the company based on the outlook for both the economy and the industry.

c. To determine how much risk the entity is subject to due to economic and industry conditions and what effect this risk will have on the required rate of return.

.11 The benefit of this economic analysis is illustrated in the case of the fictional XYZ Furniture Store. During the economic analysis phase of the engagement, the practitioner finds that the number of building permits issued and housing starts in the local area have decreased considerably and is not expected to increase in the near future. This information is important to the valuation because, as the practitioner learned through research, the retail furniture industry generally lags six months behind the real estate market. If people do not buy houses, they do not buy new furniture.

.12 The impact of this information on the valuation may be twofold: First, the forecast may need to be adjusted if the expected results can be determined, or second, the discount or capitalization rate may need to be adjusted to reflect the risk in purchasing a furniture store when a weak real estate market is predicted.

.13 There are two primary methods of determining discount rates: the build-up method and the capital asset pricing model (CAPM). These two methods use the same components but apply them differently. These components are the safe rate, the general risk premium, and the specific company risk premium.

The Build-up Method

.14 There are several methods of building up to determine discount and capitalization rates. The method used by the valuer will depend on the information available. Using the build-up method to determine these rates involves adding rates of return and return premiums based on a qualitative risk analysis of the appraisal subject. The components of the rates are discussed below.

.15 **Safe Rate.** The safe rate is generally considered to be a risk-free rate available in the marketplace. Although not completely without risk, the yield to maturity of long-term Treasury bonds as of the effective date of the valuation is frequently used to determine this rate. This information is readily available in newspapers, the *Federal Reserve Bulletin,* and other financial publications in most local libraries.

.16 **General Risk Premium.** The general risk premium, also referred to as an *equity risk premium*, represents the excess of the return earned by an equity investor over that earned by an investor in long-term Treasury securities. This information is available in various sources. The source most widely used by business valuers is *Stocks, Bonds, Bills and Inflation,*[13] published annually by Ibbotson Associates. Although this publication is a valuable tool, it has limitations in that the information it provides is about returns of public companies that may be considerably larger than the subject of the valuation. Nevertheless, some valuers believe that this information is the only data that should be used. Other valuers, however, also consult other reference sources that have been published by such experts in valuation as A.S. Dewing[14] and James Schilt.[15] In their works, businesses are categorized according to size, management structure, industry, competition, and so forth, and the authors offer opinions on the related risk premium and suggested capitalization rates for businesses in different categories.

.17 **Specific Company Risk Premium.** The specific company risk premium is the component of risk that is attributable to the valuation subject. The determination of this portion of the overall discount or capitalization rate should be based on a detailed analysis of the valuation subject. The valuer uses ratio analyses and common size financial statements to compare the company's current performance with past performance as well as with industry and guideline company data. The valuer also considers risks other than financial, such as those associated with the subject's industry, management, operations, environmental laws and regulations, and so forth.

.18 The build-up method summarizes the various risk components to derive the discount or capitalization rate. The source of the information used by the valuer will determine whether a discount rate or a capitalization rate has been derived. For example, a price earnings ratio will allow the valuer to derive a capitalization rate directly whereas Ibbotson data will derive a discount rate. An illustration of the build-up method to determine discount and capitalization rates is provided in exhibit 13A-4.7 in appendix 13/A.

Capital Asset Pricing Model

.19 The capital asset pricing model is also widely used, generally in the valuation of larger companies. CAPM is used to develop discount rates applicable to the equity of an enterprise

[13] Ibbotson Associates, *Stocks, Bonds, Bills and Inflation* (Chicago, Ill.: Ibbotson Associates).

[14] A.S. Dewing, *The Financial Policy of Corporations* (New York: The Ronald Press Company, 1953).

[15] James H. Schilt, "A Rational Approach to Capitalization Rates for Discounting the Future Income Stream of a Closely Held Company," *Financial Planner,* January 1982.

as compared with the total invested capital (debt and equity) of that enterprise. Valuing total invested capital would require a weighted average cost of capital (WACC) rate to be used by the valuer. The WACC is not discussed in this practice aid but the valuer should be aware of its applicability. This model derives a discount rate according to the following formula:

$R_f + [(R_m - R_f) \times b]$

where

R_f = risk-free rate

R_m = rate of return in the total market to equity investors

b = *beta,* which is a measure of volatility in the stock market representing risk

.20 Beta is determined through comparisons with guideline companies that are publicly traded. One readily available source of betas is the weekly publication *Value Line.*[16]

.21 In using the CAPM, some valuers add a specific company risk premium, which is referred to as an alpha. CAPM is based on portfolio management theory, which is beyond the scope of this practice aid. Although practitioners will probably use the build-up method most of the time, particularly for small companies and professional practices, they are advised to be familiar with CAPM. Practitioners are also advised to review additional valuation literature to obtain further understanding of the theory supporting discount and capitalization rates.

13/155 DISCOUNTS AND PREMIUMS

.01 The final value of a valuation subject may be less or more than the value calculated with the methods described in this practice aid. Discounts or premiums may be appropriate in calculating the final value of the subject. An experienced practitioner often considers using a minority discount when the ownership interest is less than 50 percent or a control premium when the ownership interest exceeds 50 percent. However, the practitioner needs to exercise caution because a discount or premium is not always appropriate. For example, a practitioner who uses public guideline companies to value a subject needs to be aware that the prices of the shares listed on a stock exchange already reflect a minority value. Generally, public stock market prices for shares of stock represent a marketable minority interest. To use discounts and premiums appropriately the practitioner needs to understand the basis of the adjustment.

.02 Some of the common discounts and premiums are:

a. Minority discount

[16] *The Value Line Investment Survey* (New York: Value Line Publishing, Inc.).

b. Discount for lack of marketability

c. Small company discount

d. Discount from net asset value

e. Control premium

Minority Discount

.03 A minority discount is a reduction in the control value of the subject to reflect the fact that a minority stockholder cannot control the daily activities or policy decisions of an enterprise. The size of the discount will depend on the size of the interest, the amount of control, the stockholder's ability to liquidate the company, and other factors.

.04 A minority discount is the opposite of a premium for control. This type of discount is used to obtain the value of a noncontrolling interest in the subject being valued when a control value is its reference point. Conversely, a control premium is used to determine the control value when the freely traded minority value is the reference point. The following formula can be used to obtain the minority discount:

$$1 - \left[\frac{1}{1 + \text{control premium}}\right]$$

.05 For example, the valuer may determine that the control value of a share of stock is $120, and research indicates that a 20 percent control premium is appropriate for that valuation. The minority discount would be calculated as follows:

$$1 - \left[\frac{1}{1 + 0.2}\right] = 16.67\% \text{ minority discount}$$

The 16.67 percent minority discount would be deducted from the control value to derive the freely traded minority value. This would be calculated as follows:

$120	x	16.67%	=	$ 20 discount
$120	-	$20	=	$100 freely traded minority value

.06 A minority discount should be taken only when appropriate, and the rationale for the discount should be well documented. The facts and circumstances of each case will vary, and therefore, the practitioner should avoid selecting a minority discount rate arbitrarily.[17]

[17] Practitioners will find additional guidance on selecting minority discounts in control premium studies in such publications as *Mergerstat Review*, *Mergers and Acquisitions*, and the *Premium for Control Study*, published by Houlihan, Lokey, Howard & Zukin.

Discount for Lack of Marketability

.07 A discount for lack of marketability (DLOM) is used to compensate for the difficulty of selling shares of stock that are not traded on a stock exchange compared with those that can be traded publicly. A DLOM may also be appropriate when the shares have either legal or contractual restrictions placed upon them (for example, restricted stock, buy-sell agreements, and bank loan restrictions). Even when a 100-percent interest of the subject is being valued, a DLOM may be appropriate if the owner cannot change the restrictions on the stock.

.08 The relationship of the DLOM to the control premium and minority discount is illustrated in figure 13-1 on the following page.

.09 The practitioner should also be aware that a control value may reflect a DLOM, although it probably would be smaller than a DLOM attributable to minority shares. Since a minority interest is more difficult to sell than a controlling interest, the DLOM is usually larger for minority interests.

.10 Sources of data about the DLOM include the *SEC Institutional Investor Study,* studies by Maher, Moroney, and Solberg, John Emory's study on initial public offerings, and many unpublished proprietary studies by valuation or investment banking firms. Many books on valuation theory discuss these studies.

.11 One of the best explanations of why a DLOM varies from case to case was written in an article published by Robert E. Moroney entitled "Why 25% Discount for Nonmarketability in One Valuation, 100% in Another?" (*Taxes*, May 1977). Every business valuer should read this article.

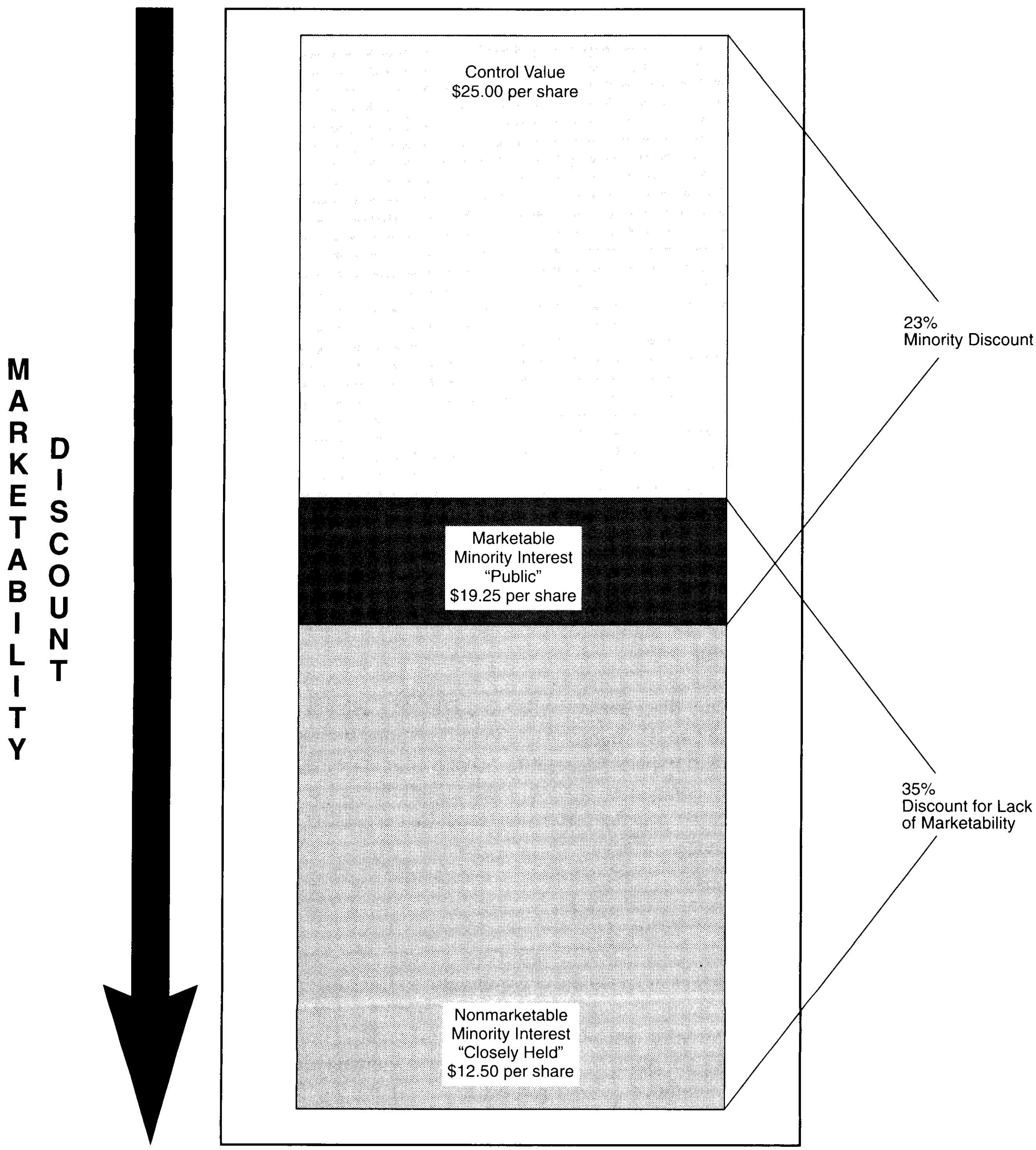
Small Company Discount

.12 The small company discount is similar to a DLOM. However, valuation professionals distinguish between these two discounts. Data in publications such as *Mergerstat Review* seem to indicate that the acquisition prices for entire private companies tend to be lower than tender offer prices for public companies. One reason for this, according to many valuation professionals, is that entire private companies tend to be smaller than many of the public companies involved in tender offers.

Discount From Net Asset Value

.13 A discount from net asset value is commonly applied in the valuation of real estate, investment companies, holding companies, and oil and gas interests. This discount is generally appropriate for the valuation of asset intensive companies and is used to derive a freely traded value. The practitioner determines this discount by reviewing the prices of the shares of publicly traded guideline companies with respect to their published net asset values.

Figure 13-1
Example of Relationships Between Control Premiums, Minority Interest Discounts, and Discounts for Lack of Marketability



Note: The discount for lack of marketability for a minority interest in closely held shares will generally be larger than for a controlling interest in closely held shares.

Control Premium

.14 As stated earlier, the control premium is the opposite of the minority discount and is used to determine the control value of a subject whose freely traded minority value is known. This is generally true when the valuer uses information from the public stock market as the starting point of the valuation. A control premium may be appropriate for reflecting control that is less than 100 percent. In this case, the size of the premium will depend on various factors relating to the amount of control available to the controlling interest.

.15 The valuer needs to be careful to avoid double counting. Certain methods of valuing a small closely held company may already include a process for reflecting the subject's control value. The value derived may be a control value depending on the adjustments made to determine the benefits stream to be discounted or capitalized. The capitalization of excess earnings method, for example, is one in which the resulting value is a control value. In this instance, if the valuer adds a control premium, double counting would take place.

.16 A control premium may, however, be appropriate in valuing certain minority blocks of stock. For example, an interest of 2 percent may have a considerable value if it has the swing vote when the other two stockholders own 49 percent each.

13/160 CONCLUSION

.01 The valuation of a closely held business is an extremely complex process. The purpose of this practice aid is to provide practitioners with a better insight into the complexity of this process and with a foundation for investigating the subject further. More detailed information about valuation theory and methods is available in books and articles, such as those listed in the bibliography, as well as in continuing professional education courses sponsored by the AICPA, state societies, and other professional appraisal organizations.

APPENDIX 13/A

CASE STUDY: VALUATION OF 100 PERCENT OF THE EQUITY OF BEST WIDGETS, INC.

Jane Piccolo, president of Best Widgets, Inc., retained the firm of I.M.A. Valuer & Company to estimate the fair market value of 100 percent of the equity of the company for estate planning purposes. Piccolo agreed to the terms of the valuation as stated in the sample engagement letter (exhibit 13A-1). After reviewing the draft of the valuation report, Piccolo sent I.M.A. Valuer & Company a representation letter confirming the validity of the information submitted to the valuer and verifying its accuracy and completeness (see exhibit 13A-2, "Sample Representation Letter"). The sample letters can be adapted for use in a particular engagement. The practitioner is also advised to consult appropriate AICPA sources for guidance particularly as it relates to situations in which an accountant's report is required to accompany the financial statements.

The final valuation computation in this case study is presented for illustrative purposes. Many of the valuation methods illustrated may or may not be appropriate for each business valuation engagement. In an actual valuation, all methods would probably not be used.

Exhibit 13A-1

Sample Engagement Letter

I.M.A. Valuer & Company
Certified Public Accountants
59-60 Main Street
Anytown, USA 00000

July 30, 19ya

Ms. Jane Piccolo, President
Best Widgets, Inc.
68-609 Ruling Street
Anytown, USA 00000

Dear Ms. Piccolo:

This letter will confirm the terms of our engagement and the nature of the services that we will provide.

1. We will perform a business valuation to determine the fair market value of 100 percent of the common stock of Best Widgets, Inc. as of December 31, 19xz. Fair market value is defined as the value at which a willing buyer and a willing seller, both being informed of the relevant facts about the business, would conduct a transaction, neither party acting under any compulsion to do so.

2. We will not conduct an audit as defined by the American Institute of Certified Public Accountants. Rather, we will perform the necessary tests of the accounting records for the purpose of issuing a valuation report, not a statement regarding the fairness of presentation of the financial statements of the business.

3. In our report, we will include certain values derived from reports of others and designate them as such. However, we take no responsibility for those items. Nor do we take responsibility to update the report or disclose any events or circumstances occurring after the valuation date. In the event sufficient records or documentation cannot be supplied to us, we will not issue a valuation report.

4. Our fees will be based upon the following rates:

    a. $XXX per hour for all services relating to the business valuation regardless of whether a valuation report can be issued.

b. $XXX per hour for all services rendered relating to depositions, trial preparation, court appearances, and testimony; a minimum fee for four hours will be charged for appearance at depositions and other court appearances.

c. Any out-of-pocket expenses relating to this valuation.

5. The payment terms are as follows:

$XXX is due in advance as a retainer. The balance shall be payable prior to the delivery of the report. The report will not be issued if there is a balance due. Any services rendered thereafter shall be due and payable upon presentation of an invoice.

Balances outstanding beyond 30 days will have a service charge added at the rate of 1.5% per month or part thereof. All costs relating to collection of these fees will also be the responsibility of the undersigned including, but not limited to, attorney fees and collection agency fees. Reasonable attorney fees will be considered to be up to 33 percent of the outstanding balance.

6. The final report is copyrighted by I.M.A. Valuer & Company. It shall remain our property, and no copies or reproductions shall be allowed without written consent until such time as any outstanding balance is paid.

7. I.M.A. Valuer & Company reserves the right to withdraw from this engagement at any time regardless of the reason. In the event there is an outstanding balance, we further reserve the right not to make a court appearance in this matter. All work papers created by us will remain the property of our firm. In the event of a withdrawal, we would only be liable to return those materials and documents supplied by the client and the unused portion of the retainer.

8. The undersigned gives I.M.A. Valuer & Company the right to discuss this matter with the client's attorney, accountant, other individuals designated by the client, and any colleagues of the valuer from whom professional information is sought. If the terms of this engagement are acceptable, please sign the acknowledgment below and return a signed copy of this letter with your check for $X,XXX to our office.

____

Partner

ACKNOWLEDGMENT:

The undersigned accepts the terms of this engagement and guarantees full payment of the fees with respect to this engagement.

Signature ____ Date _______________

Exhibit 13A-2

Sample Representation Letter

Best Widgets, Inc.
68-609 Ruling Street
Anytown, USA 00000

November 19, 19ya

I.M.A. Valuer & Company
Certified Public Accountants
59-60 Main Street
Anytown, USA 00000

Gentlemen:

Concerning your valuation of Best Widgets, Inc. as of December 31, 19xz, we represent to you that to the best of our knowledge and belief—

1. We have made available to you all information requested and all information that we believe is relevant to your valuation.

2. The financial statements furnished to you for the years ended December 31, 19xv through 19xz present the financial position of Best Widgets, Inc. in conformity with generally accepted accounting principles.

3. The income tax returns furnished to you for the years 19xv through 19xz are complete and exact copies of the returns filed with the Internal Revenue Service.

4. The company has no commitments or contingent liabilities, including those arising from litigation, claims, and assessments, that are not disclosed in the financial statements identified above.

5. The company does not have any (a) employment contracts with salaried employees, (b) stock option plans, or (c) stock redemption agreements with shareholders, except to the extent indicated in written agreements furnished to you.

6. The company is not currently negotiating the acquisition of new business interests or the disposition of existing segments or products lines.

7. The forecast of future earnings presents our assumptions and the company's expected financial position, results of operations, and cash flows for the year ending after December 31, 19xz in conformity with the generally accepted accounting principles expected to be used by the company during the forecast period. These principles are consistent with the principles that Best Widgets, Inc. uses in preparing its historical financial statements. The financial forecast is based on our judgment, considering present circumstances, of the expected conditions and our expected course of action.

8. We have reviewed the preliminary draft of your valuation report, a copy of which is attached, and represent that the information about the company presented therein is accurate and complete.

Very truly yours,
Best Widgets, Inc.

Jane Piccolo, President

Exhibit 13A-3

Sample Cover Letter

I.M.A. Valuer & Company
Certified Public Accountants
59-60 Main Street
Anytown, USA 00000

November 19, 19ya

Ms. Jane Piccolo, President
Best Widgets, Inc.
68-609 Ruling Street
Anytown, USA 00000

Dear Ms. Piccolo:

In accordance with your request and for the purpose of estimating the fair market value of 100 percent of the common stock of Best Widgets, Inc. to be used as part of an estate plan, we have personally inspected this business, examining the component parts, and have made a careful and thorough investigation and analysis of matters pertinent to the estimation of its value.

Based upon the facts presented in the attached report and other matters considered during our investigation and analysis, it is our opinion that as of December 31, 19xz, the fair market value of 100 percent of the common stock of Best Widgets, Inc. was **$4,000,000.**

Our report and conclusions are attached to this cover letter as an integral part of it.

Respectfully submitted,
I.M.A. VALUER & COMPANY

Partner

Exhibit 13A-4.1

Comparison of Historic Balance Sheets

During a business valuation engagement, the practitioner will usually receive either financial statements or tax returns or both and can use them to prepare a comparative balance sheet of the valuation subject. An advantage of preparing a comparative balance sheet is that it allows the valuer to compare any changes between the various years being analyzed. Although statements for five years are commonly used, the facts and circumstances of each case should be considered because more or fewer years may be appropriate in some situations.

Practitioners should remember that generally accepted accounting principles do not apply in the valuation of closely held companies. It is suggested to segregate operating assets from nonoperating assets and liabilities in the comparative balance sheet.

In the case of Best Widgets, Inc., nonoperating assets include the cash surrender value of a life insurance policy and a brokerage account that is held for investment purposes. Under an income approach, since these assets do not affect operations, the company would be valued without them and they would be added back at the end to determine the enterprise's total value, as is done in several valuation illustrations in this case study. The nonoperating liabilities should also be segregated for similar reasons. In this instance, a loan against the cash surrender value of the officer's life insurance has been segregated.

Since many small businesses have nonoperating assets and liabilities recorded on their balance sheets, the practitioner needs to pay close attention to these items. As a company grows, and as more owners have an interest in the company, the number of personal items on the balance sheet generally decreases. For instance, the chance of multiple owners each having a condominium or other personal assets on the books is less likely than if the business was a sole proprietorship.

Schedule 13A-4.1
Best Widgets, Inc.
Historic Balance Sheets
December 31,

	19xv	19xw	19xx	19xy	19xz
Current Assets					
Cash	$ 56,789	$ 65,189	$ 69,879	$ 74,568	$ 88,563
Accounts Receivable:					
Trade	178,569	161,528	198,567	188,222	196,877
Employees	1,235	2,568	2,256	4,789	3,526
Other	2,356	2,145	2,568	3,546	2,973
(Bad Debt Allowance)	(1,785)	(1,615)	(1,986)	(1,882)	(1,969)
Inventory					
Finished goods	988,562	1,089,521	1,256,742	1,158,963	1,568,963
Prepaid Expenses	56,899	60,897	65,423	62,578	64,589
Current Assets	$ 1,282,625	$ 1,380,233	$ 1,593,449	$ 1,490,784	$ 1,923,522
Fixed Assets					
Furniture	$ 567,852	$ 659,412	$ 756,222	$ 789,123	$ 985,642
Machinery	369,741	379,514	401,256	410,444	465,237
Auto & Truck	97,563	105,643	125,654	178,456	198,525
(Accumulated Deposits)	(276,894)	(419,894)	(576,894)	(745,894)	(920,894)
Net Fixed Assets	$ 758,262	$ 724,675	$ 706,238	$ 632,129	$ 728,510
Other Assets					
Deferred charges	$ 12,564	$ 13,568	$ 14,589	$ 13,456	$ 15,488
Intangibles	50,000	50,000	50,000	50,000	50,000
(Accumulated Amortization)	(20,000)	(25,000)	(30,000)	(35,000)	(40,000)
Nonoperating Assets:					
Cash value - Life	6,896	8,956	10,235	15,689	21,589
Investments	98,564	105,649	87,235	156,423	154,215
Other Assets	$ 148,024	$ 153,173	$ 132,059	$ 200,568	$ 201,292
TOTAL ASSETS	**$ 2,188,911**	**$ 2,258,081**	**$ 2,431,746**	**$ 2,323,481**	**$ 2,853,324**
Current Liabilities:					
Accounts Payable	$ 298,564	$ 286,159	$ 356,729	$ 346,789	$ 398,524
Accrued Expenses	137,489	128,796	167,498	156,422	145,666
Notes Payable	50,000	75,000	80,000	90,000	125,000
Long-term Debt (Current)	120,000	120,000	120,000	120,000	120,000
Other Liabilities	65,897	48,956	59,852	65,412	63,588
Current Liabilities	$ 671,950	$ 658,911	$ 784,079	$ 778,623	$ 852,778
Long-term Liabilities:					
Bank Loan	$ 265,512	$ 187,654	$ 305,469	$ 356,478	$ 568,789
Total Long-term Liabilities:	$ 265,512	$ 187,654	$ 305,469	$ 356,478	$ 568,789
Nonoperating Liabilities:					
Loan-CSV	3,500	4,500	5,000	7,500	10,000
Total Liabilities	$ 940,962	$ 851,065	$ 1,094,548	$ 1,142,601	$ 1,431,567
Stockholders' Equity:					
Common Stock	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000
Retained Earnings	1,237,949	1,397,016	1,327,198	1,170,880	1,411,757
Total Stockholders' Equity	$ 1,247,949	$ 1,407,016	$ 1,337,198	$ 1,180,880	$ 1,421,757
LIABILITIES & STOCKHOLDERS' EQUITY	**$ 2,188,911**	**$ 2,258,081**	**$ 2,431,746**	**$ 2,323,481**	**$ 2,853,324**

Exhibit 13A-4.2

Comparison of Summary Historic Income Statements

Upon receipt of the company's financial statements or tax returns, the business valuer should prepare a spreadsheet comparing the company's historic income statement for an appropriate number of years (usually five). The valuer will find it helpful to prepare a complete historic income statement comparison rather than one in summary form. The purpose of this comparison is to analyze the trends. This analysis will be helpful in determining which expenses need further examination, particularly for the purpose of normalizing the income statement. It will also allow the valuer to determine any trends that may be used for forecasting future operations.

Once again, the nonoperating income and expenses are segregated because the value of the enterprise should be determined based on its true business activity. Another reason to segregate these figures is to enhance the comparability of the data with the data of guideline companies and industry data.

Frequently, when small closely held companies are bought and sold, the transactions are asset sales rather than stock sales. As such, the nonoperating assets and liabilities, which generate the nonoperating income and expenses, are not part of the transaction. Valuation theory requires the valuer to treat these items separately.

Schedule 13A-4.2
Best Widgets, Inc.
Summary Historic Income Statements
For the Years Ended December 31,

	19xv	19xw	19xx	19xy	19xz
Total Revenue	$ 6,458,933	$ 7,156,892	$ 8,546,666	$ 9,125,463	$ 9,957,899
Cost of Sales	3,845,615	4,356,821	5,642,852	4,986,315	5,423,896
Gross Profit	$ 2,613,318	$ 2,800,071	$ 2,903,814	$ 4,139,148	$ 4,534,003
Operating Expenses	1,685,248	1,758,962	1,799,841	2,489,521	2,566,844
Officer's Salary	160,000	190,000	254,000	289,000	350,000
Depreciation	135,000	148,000	162,000	174,000	180,000
Interest Expense	68,952	75,236	84,569	88,569	93,412
Total Operating Expenses	$ 2,049,200	$ 2,172,198	$ 2,300,410	$ 3,041,090	$ 3,190,256
Pre-Tax Net Operating Income	$ 564,118	$ 627,873	$ 603,404	$ 1,098,058	$ 1,343,747
Nonoperating Income	19,564	21,587	14,569	17,892	16,459
Nonoperating Expenses	(3,569)	(8,852)	(9,641)	(7,863)	(10,987)
Income Taxes	(201,564)	(245,688)	(239,568)	(412,569)	(425,698)
Net Income	**$ 378,549**	**$ 394,920**	**$ 368,764**	**$ 695,518**	**$ 923,521**

Exhibit 13A-4.3

Adjusted Net Income Analysis

The starting point of the adjusted net income analysis is the reported net income as reflected in schedule 13A-4.2. The adjustments in schedule 13A-4.3 are intended to normalize the reported net income and correct for those items that may need to be restated to reflect the net economic income of the business. In this instance, nonoperating income was subtracted from the reported net income because it is not attributable to business activity.

Depreciation expense was also adjusted to reflect the economic depreciation rather than the tax or GAAP depreciation. To determine the amount of this adjustment, the valuer either has an appraisal of the depreciable assets performed or uses his or her own judgment based on a similar process as if an appraisal were performed. To set the fair market value of the fixed assets, the valuer should obtain information about the useful life of the assets from either the sources that determined the value or company management. The practitioner should pay particular attention to items that have been expensed under Section 179 of the Internal Revenue Code, items that possibly have been expensed, rather than capitalized, over the years, and items that have been written off, but continue to be used in the business.

The adjustment to officer's salary is intended to reflect the reasonable compensation that would be required by a replacement. Industry salary surveys are frequently a good source of this information, and it is advisable to use the data reported in this type of source rather than base the adjustment on the percentages of sales that are widely published. The problem with using some of these publications is their lack of reliability. Usually they do not specify the number of officers earning the compensation, so the same percentage may be applied to a company with one officer and to one with three officers.

The nonoperating expenses have also been removed and added to the net income because they do not affect the enterprise's business operations. The value of net nonoperating assets is added back to the value determined for the operating assets and liabilities to derive the total value of the enterprise.

The final adjustment is to calculate the tax effect of these adjustments. The valuation profession is divided about the applicability of taxes in the valuation of closely held businesses between practitioners who prefer to value companies on a pre-tax basis and those who value on an after-tax basis. Either basis is correct as long as the applicable capitalization rates, discount rates, and guideline company information are consistent with the basis being used. When the entity being valued is a sole proprietorship, a partnership, or an S corporation, some practitioners prefer to use a corporate tax rate to avoid the effects of itemized deductions and personal exemptions on the owner's tax obligation. Others prefer to value the entity on a pre-tax basis, which accomplishes the same purpose, if the other information being used by the valuer can be converted to a pre-tax basis.

If the practitioner capitalizes or discounts a pre-tax or an after-tax benefits stream, the result should be the same. The company will only have one value (within the reasonable range of values), and the factors used in the valuation process should be applied consistently.

Schedule 13A-4.3
Best Widgets, Inc.
Adjusted Net Income
For the Years Ended December 31,

	19xv	19xw	19xx	19xy	19xz
Reported Net Income	$ 378,549	$ 394,920	$ 368,764	$ 695,518	$ 923,521
Adjustments					
Nonoperating Income[1]	(19,564)	(21,587)	(14,569)	(17,892)	(16,459)
Depreciation[2]	(52,791)	(57,874)	(63,349)	(68,041)	(52,770)
Officer's Salary[3]	20,000	36,000	84,000	89,000	125,000
Nonoperating Expenses[4]	3,569	8,852	9,641	7,863	10,987
Pre-Tax Adjustment Net Income	$ 329,763	$ 360,311	$ 384,487	$ 706,448	$ 990,279
Net Tax Adjusted 35.58%[5]	(17,358)	(12,314)	(5,594)	(3,889)	(23,751)
Adjusted Net Income	$ 347,121	$ 372,625	$ 378,893	$ 702,559	$ 966,528

1. To remove the nonoperating income
2. To adjust depreciation to reflect economic depreciation rather than tax depreciation
3. To adjust officer's salary based on an industry salary survey
4. To remove nonoperating expenses
5. To adjust taxes by the effective tax rate to reflect the amount of taxes attributable to the adjusted items

Exhibit 13A-4.4

Ratio Analysis

Ratio analysis is critical to the valuation process, because it allows the valuer to compare the company's current performance with that of past years and also with that of either guideline companies or the industry. Schedule 13A-4.4 reflects the calculation of ratios that can be used in the financial analysis portion of the valuation.

In this instance, Best Widgets, Inc.'s ratios were compared with composite industry ratios to determine whether the company is stronger or weaker than its industry counterparts. This comparison helps the valuer to assess the financial risk of the company, which is one of the factors used to determine a proper discount or capitalization rate. Another useful purpose of the ratio analysis is to help the valuer forecast future results of the company based on past trends.

A good valuation report includes a discussion of these ratios and explains any major variations from year to year and with the industry composite data. For example, the operating ratio of earnings before taxes to tangible worth of Best Widgets, Inc. is more than twice the industry ratio. Therefore, the valuer analyzed the company data carefully to determine the reason for the difference.

The purpose of the analysis is to assist in the valuation process, and the information presented must be relevant and meaningful to the particular engagement. The practitioner should therefore note that different industries consider different ratios appropriate for the valuation of different types of companies. For example, in the valuation of a brokerage business, the ratio of sales per employee is considered appropriate. The valuer therefore uses this ratio rather than ratios that deal with cost of goods sold or sales per square foot of retail space, which may be applicable for other types of businesses.

Schedule 13A-4.4
Best Widgets, Inc.
Ratios
For the Years Ended December 31,

Description	19xw	19xx	19xy	19xz	Industry 19xz
Liquidity Ratio					
Current Ratio	2.00	2.06	1.97	2.09	2.65
Quick Ratio	0.35	0.35	0.35	0.34	0.36
Sales/Accounts Receivables	41.49	46.70	46.08	50.28	46.89
Days	8.80	7.82	7.92	7.26	7.78
COGS/Inventory	4.19	4.81	4.13	3.98	4.36
Days	87.05	75.88	88.42	91.79	83.72
COGS/Payables	14.90	17.55	14.18	14.55	16.56
Days	24.49	20.79	25.75	25.08	22.04
Sales/Working Capital	10.75	11.17	12.00	11.17	14.55
Coverage Ratios					
EBIT/Interest	9.51	8.19	13.51	15.44	10.54
NI+Non-Cash Expenses/ Current Long-term Debt	4.52	4.42	7.25	9.20	6.12
Leverage Ratios					
Fixed/Tangible Worth	0.57	0.53	0.54	0.53	0.48
Debt/Tangible Worth	0.69	0.72	0.90	1.00	0.88
Operating Ratios					
EBT/Tangible Worth	49.28%	45.07%	89.25%	104.69%	43.25%
EBT/Total Assets	28.81%	25.94%	46.61%	52.13%	47.55%
Rev/Fixed Assets	9.65	11.95	13.64	14.64	11.64
Rev/Total Assets	3.22	3.64	3.84	3.85	3.15

Exhibit 13A-4.5

Comparison of Common Size Income Statements and Common Size Balance Sheets

Historic income statements and balance sheets presented as common size financial statements can be used to analyze the company's performance over the years and to compare it with guideline companies and composite industry information. This comparison provides an excellent way to determine whether gross profit percentages have changed over the years and whether the company is keeping pace with the industry. Presentation of these data as percentages rather than dollars makes the comparison easier.

Similar to the ratio analysis, common size financial statement analysis allows the valuer to assess trends and risks that assist in the forecasting process as well as in the determination of proper discount or capitalization rates.

The balance sheet information may show a shifting of assets or liabilities, such as cash and accounts receivable, or it may indicate trends in inventory or accounts payable. The common size financial statements can be used to determine the risk of the company by comparing its experience with that of guideline companies or with composite industry figures. The estimate of risk ultimately contributes to the determination of a proper discount or capitalization rate.

Schedule 13A-4.5
Best Widgets, Inc.

Common Size Income Statement Comparison
For the Years Ended December 31,

	19xv	19xw	19xx	19xy	19xz	Industry 19xz
Total Revenue	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Sales	59.54%	60.88%	66.02%	54.64%	54.47%	55.65%
Gross Profit	40.46%	39.12%	33.98%	45.36%	45.53%	44.35%
Operating Expenses	26.09%	24.58%	21.06%	27.28%	25.78%	26.84%
Officer's Salary	2.48%	2.65%	2.97%	3.17%	3.51%	2.88%
Depreciation	2.09%	2.07%	1.90%	1.91%	1.81%	1.23%
Interest	1.07%	1.05%	0.99%	0.97%	0.94%	0.79%
Total Income	8.73%	8.77%	7.06%	12.03%	13.49%	12.61%
Nonoperating Income	0.30%	0.30%	0.17%	0.20%	0.17%	0.28%
Nonoperating Expenses	0.06%	0.12%	0.11%	0.09%	0.11%	0.08%
Taxes	3.12%	3.43%	2.80%	4.52%	4.27%	4.11%
Net Income	5.86%	5.52%	4.31%	7.62%	9.27%	8.70%

Common Size Balance Sheet Comparison
as of December 31

	19xv	19xw	19xx	19xy	19xz	Industry 19xz
Cash	2.59%	2.89%	2.87%	3.21%	3.10%	4.89%
Accounts Receivable	8.24%	7.29%	8.28%	8.38%	7.06%	6.55%
Inventory	45.16%	48.25%	51.68%	49.88%	54.99%	48.59%
Other Current Assets	2.60%	2.70%	2.69%	2.69%	2.26%	2.41%
Current Assets	58.60%	61.12%	65.53%	64.16%	67.41%	62.44%
Fixed Assets	47.29%	50.69%	52.77%	59.31%	57.81%	60.03%
Accumulated Depreciation	(12.65%)	(18.60%)	(23.72%)	(32.10%)	(32.27%)	(28.46%)
Other Assets	0.57%	0.60%	0.60%	0.58%	0.54%	0.41%
Intangibles (Net)	1.37%	1.11%	0.82%	0.65%	0.35%	2.69%
Nonoperating Assets	4.82%	5.08%	4.01%	7.41%	6.16%	2.89%
Total Assets	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Liabilities:						
Accounts Payable	13.64%	12.67%	14.67%	14.93%	13.97%	14.96%
Other Current Liabilities	17.06%	16.51%	17.57%	18.59%	15.92%	13.82%
Current Liabilities	30.70%	29.18%	32.24%	33.52%	29.89%	28.78%
Long-term Liabilities	12.13%	8.31%	12.56%	15.34%	19.93%	22.39%
Nonoperating Liabilities	0.16%	0.20%	0.21%	0.32%	0.35%	.47%
Total Liabilities	42.99%	37.69%	45.01%	49.18%	50.17%	51.64%
Total Stockholders' Equity	57.01%	62.31%	54.99%	50.82%	49.83%	48.36%
Total Liabilities & Stockholders' Equity	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Exhibit 13A-4.6

Analysis of the Adjusted Book Value and Orderly Liquidation

Schedule 13A-4.6 illustrates a computation of the adjusted book value of the assets and liabilities excluding intangible value and the calculation of the liquidation value of the same assets and liabilities. Although not illustrated in this exhibit, other engagements of this type may also include adjustments to current and long-term liabilities. Starting with the book value as shown on the most recent historic balance sheet in schedule 13A-4.1, the valuer made adjustments to bring various items to fair market value. Accounts receivable was adjusted to account for uncollectible accounts. The inventory was adjusted to reflect obsolete items being carried on the company's books. The adjustment to the fixed assets eliminated the accumulated depreciation amount and brought the fixed assets to their fair market value. The valuer may have assets valued by another appraiser who specializes in a particular type of property, such as real estate or machinery and equipment. In an engagement that does not involve material amounts of fixed assets, the valuer may make telephone calls to office furniture vendors or use blue books to value vehicles. In any event, the determination of the fair market value should be properly documented.

Some valuers perform a liquidation value analysis on either a separate schedule or in their work papers and present it only if appropriate. The liquidation percentages applied should be based on the valuer's judgment as to what percentage of the value of assets and liabilities will be realized in the event of an orderly liquidation. An orderly liquidation allows a reasonable amount of time to liquidate the assets and liabilities as compared with a forced liquidation, or fire sale.

The premise of highest and best use employed in real estate appraisals also pertains to business valuations. Generally, the business operation's highest and best use is the same operation that is currently being conducted. However, the highest and best use could be to realize the liquidation value of the assets.

Sometimes certain intangible assets may have more value in liquidation than in a going concern. For example, a fuel oil distributorship that has been losing money for many years may be worth more in liquidation than as a going concern. The reason its liquidation value is higher is that its customer list can be sold to a competitor. Companies are purchasing such lists to expand their own base while the industry shrinks because of conversions to natural gas. The customer list has less value to the company losing money than to the acquirer attempting to maximize its capacity.

In order for the analysis to be complete, the expenses of administering the liquidation and any resulting income taxes should be included. In this case, the asset composition of Best Widgets, Inc. clearly shows that liquidation value is less than the adjusted book value, so there is no need to calculate the administrative cost of liquidation. Schedule 13A-4.6 shows that after adjustments, the adjusted book value of Best Widgets, Inc. is $1,166,647.

Schedule 13A-4.6
Best Widgets, Inc.
Adjusted Book Value and Orderly Liquidation
December 31, 19XZ

	Book Value	Fair Market Value Adjustment	Adjusted Book Value	Liquida-tion Percent	Liquidation Value
Current Assets					
Cash	$ 88,563	$	$ 88,563	100.00%	$ 88,563
Accounts Receivable	201,407	(9,600)	191,807	70.00%	134,265
Inventory	1,568,963	(47,500)	1,521,463	50.00%	760,732
Prepaid Expenses	64,589		64,589	50.00%	32,295
Current Assets	1,923,522		1,866,422		1,015,854
Fixed Assets:					
Fixed Assets	1,649,404	(1,125,689)	523,715	80.00%	418,972
(Accumulated Depreciation)	(920,894)	920,894	0		0
Net Fixed Assets	728,510		523,715		418,972
Other Assets					
Other Long-term Assets	15,488	0	15,488	0.00%	0
Intangibles	50,000	(50,000)	0		0
(Accumulated Amortization)	(40,000)	40,000	0		0
Nonoperating Assets	175,804	16,785	192,589	95.00%	182,960
Other Assets	201,292		208,077		182,960
Total Assets	$ 2,853,324		$ 2,598,214		$ 1,617,785
Current Liabilities					
Accounts Payable	398,524		398,524	100.00%	398,524
Accrued Expenses	145,666		145,666	100.00%	145,666
Notes Payable	125,000		125,000	100.00%	125,000
Long-term Debt (Current)	120,000		120,000	100.00%	120,000
Other Liabilities	63,588		63,588	100.00%	63,588
Current Liabilities	852,778		852,778		852,778
Long-term Liabilities					
Bank Loan	568,789		568,789	100.00%	568,789
Nonoperating Liabilities	10,000		10,000	100.00%	10,000
Total Liabilities	$ 1,431,567		$ 1,431,567	100.00%	$ 1,431,567
Common Stock	10,000		10,000		10,000
Retained Earnings	1,411,757		1,156,647		176,218
Total Equity	$ 1,421,757		$ 1,166,647		$ 186,218
Liabilities & Equity	$ 2,853,324		$ 2,598,214		$ 1,617,785

Exhibit 13A-4.7

Build-up Method
to Determine Discount and Capitalization Rates

As mentioned earlier, the valuer can use several methods of building up to determine discount and capitalization rates, depending on the information available. In schedule 13A-4.7, for example, the valuer obtained industry information relating to the return on equity based on net earnings, and, therefore, applied a method appropriate for net earnings streams rather than cash flow.

In schedule 13A-4.7, the safe rate of 8 percent was obtained from the *Federal Reserve Bulletin* at the valuation date. The general risk premium of 12.7 percent represents the difference between the median return on equity, 20.7 percent reported by the industry and the 8-percent return available on long-term Treasury bonds. If the industry, as a whole, was returning 20.7 percent when an 8-percent return was available as a safe investment, the difference is considered to be a risk premium at that time.

The specific company risk premium of 5 percent is the valuer's judgment about the amount of risk premium necessary to compensate for Best Widgets, Inc. as compared with the rest of the industry. Although the financial results seem to indicate that Best Widgets, Inc. is strong in many areas, the valuer learned during a management interview that full control of the company rests in its owner, whose health is failing. After determining how vital the owner is to this business, the valuer concluded that the business is in jeopardy because of a lack of organizational structure and succession planning.

The discount rate of 25.7 percent will be used to calculate value with the discounted future benefits method. (In this case study, net earnings after taxes has been selected as the benefits steam.) The long-term growth rate of 4 percent has been subtracted from the discount rate to determine the capitalization rate to be used for the future earnings. Depending upon the source of the information and its application, a capitalization of earnings rate may result. To ensure that the valuer derives the correct discount or capitalization rate, consistency is critical. In order to calculate an excess earnings capitalization rate, this particular method adds an excess earnings premium to the future earnings capitalization rate of 21.7 percent. The excess earnings premium is the difference between the high industry return on equity (28.9 percent) and the median return of 20.7 percent. This calculation is based on the definition of excess earnings as the excess over the norm in the industry.

Another excellent method for building up discount and capitalization rates, but not illustrated in this practice aid, is provided in PPC's *Guide to Business Valuations*. The illustration includes worksheets, which will be more appropriate when the practitioner uses information derived from the public marketplace or from Ibbotson Associates' *Stocks, Bonds, Bills and Inflation* to determine a discount rate for cash flow with appropriate adjustments being made for earnings and capitalization rates.

The discount rate illustrated in this section relates to that which would be used in the determination of the cost of equity of a business. There will be valuations where the capital structure may include a substantial amount of debt, and in those instances, it may be desirable to value the entity on a "debt free" basis using a weighted average cost of capital (WACC) intended to help the valuer estimate the value of the total invested capital of the enterprise rather than only the equity. A discussion of the derivation of the WACC is beyond the scope of this practice aid.

There is no correct or incorrect method of building up discount and capitalization rates as long as they are developed consistently and are well supported. Practitioners need to remember that the objective of the engagement is to give an opinion of value of a business interest, and not to determine a discount rate or capitalization rate. These rates are important tools in the valuation process and practitioners should certainly understand their derivation. However, they need to remember that *ultimately the final result must make sense.*

Schedule 13A-4.7
Best Widgets, Inc.
Discount and Capitalization Rates

Rates located during valuator's research

Long-term Treasury Bonds			8.0%
Industry Return on Equity	-	Median	20.7%
Industry Return on Equity	-	High	28.9%
Long-term Business Growth			4.0%

Calculation of discount and capitalization rates

	Safe Rate	8.0%
	General Risk Premium	12.7%
	Specific Company Risk Premium	5.0%
1.	Discount Rate on Future Earnings	25.7%
	Less Growth Differential	4.0%
2.	Future Earnings Capitalization Rate	21.7%
	Plus Excess Earnings Premium	8.2%
3.	Excess Earnings Capitalization Rate	29.9%

Exhibit 13A-4.8

Capitalization of Benefits

Valuation is a prophecy of the future. Accordingly, the valuer estimates the future income of the valuation subject. Since the subject company is expected to grow at 4 percent, the valuer calculates the estimated future income based on a 4-percent growth rate, using the adjusted net income for 19xz (schedule 13A-4.8 shows the adjusted net income for years 19xv through 19xz). The valuer capitalizes the estimated future income at a rate of 21.7 percent to derive the indicated value from operations. The value of the net nonoperating assets is added to the indicated value to yield the total entity value, which can then be rounded off to $4.8 million

The practitioner should realize that valuation is not an exact science. The value determined is *the most probable price* within an acceptable range of values. Rounding off the results is acceptable in practice. Furthermore, the rounding may emphasize to the reader of the valuation report that precision is not the intention. The amount of rounding will depend upon the purpose and function of the report. In rounding, the practitioner considers the objective of providing a valuation that is supportable.

Schedule 13A-4.8
Best Widgets, Inc.
Valuation Based on Capitalization of Benefits

Adjusted Net Income (19xz)	$ 966,528
Forecasted Growth (4%)	x 1.04
Estimated Future Income	1,005,189
Capitalization Rate	÷ 21.7%
Indicated Value From Operations	$ 4,632,208
+ Net Nonoperating Assets	182,589
Total Entity Value	$ 4,814,797
Rounded	$ 4,800,000

Exhibit 13A-4.9

Capitalization of Excess Earnings

Schedule 13A-4.9 illustrates the application of the capitalization of excess earnings method. This method is probably the most widely used for small businesses and professional practices.

In this illustration, the same estimate of future income is used as calculated in schedule 13A-4.8. In practice, many practitioners mistakenly use a weighted average of historic adjusted earnings to perform the calculation of value. However, valuation theory is consistent in advising the use of estimated future income and a return on the net tangible assets based on their adjusted book value, not historic values. The return on net tangible assets includes only the operating assets and liabilities. The valuer based the 15-percent return rate on the risk associated with the composition of the assets and liabilities.

After subtracting the return on the net tangible assets to derive excess earnings, the valuer uses the appropriate capitalization rate to determine the intangible value of the enterprise. The adjusted book value of the net tangible assets, including net nonoperating assets, is then added to the intangible value to derive the total entity value. In this instance, the value has been rounded to $4.0 million.

Schedule 13A-4.9
Best Widgets, Inc.
Valuation Based on Capitalization of Excess Earnings

Estimated Future Income ($966,528 x 1.04)	$ 1,005,189
Less Return on Net Tangible Assets ($984,058[1] x 15%)	147,609
Excess Earnings	$ 857,580
Capitalization Rate	÷ 29.90%
Intangible Value	$ 2,868,161
+ Adjusted Book Value	1,166,647
Total Entity Value	$ 4,034,808
Rounded	$ 4,000,000

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[1] Adjusted Book Value	$ 1,166,647
Nonoperating Assets	- 192,589
Nonoperating Liabilities	+ 10,000
	$ 984,058

Exhibit 13A-4.10

Guideline Company Information

Schedule 13A-4.10 illustrates the calculation of value based on information about guideline companies. After comparing Best Widgets, Inc. to the guideline companies, the valuer selected appropriate multiples. The price-to-earnings ratios for the guideline companies are considerably higher than that which the valuer would use for Best Widgets, Inc. because of differences in size, ability to raise capital, succession of management, and the overall risk associated with the company. Therefore, even though the average multiple is 8.28, the practitioner needs to use professional judgement to select an appropriate multiple. In this case the multiple 4.2 was selected. Applying a 4.2 price-to-earnings ratio to the adjusted after-tax net income of $1,005,189, the valuer derives the operating entity value of $4,221,794. The value of the net nonoperating assets is added to the operating entity value to derive the value of Best Widgets, Inc., which is rounded to $4,400,000.

Similar analyses are done using the percent of sales and the multiple of book value. Since Best Widgets, Inc. is considerably smaller than the guideline companies and more risky, a lower multiple is appropriate. Using a 45-percent multiple in calculating the value as a percent of sales, the valuer concludes that the entity value, rounded is $4.7 million. The multiple of book value approach yields a rounded $4.4 million.

Schedule 13A-4.10
Best Widgets, Inc.
Valuations Based on Guideline Company Information

Guideline Company Information

GUIDELINE COMPANIES	DATE	PRICE TO EARNINGS RATIO	PERCENT OF SALES	MULTIPLE OF BOOK VALUE
XYZ Widget Co.	12/31/xz	8.90	53.50%	5.65
Apple Widget Co.	10/31/xz	9.50	46.25%	6.94
Target Widget Co.	12/31/xz	8.60	39.70%	5.32
ABC Widgets Co.	12/31/xz	6.50	52.65%	5.78
Widgets R Us	11/30/xz	7.90	49.80%	6.01
	Average Multiple	8.28	48.38%	5.94
	Selected Multiple	4.20	45.00%	3.00

Price to Earnings

After-Tax Adjusted Net Income	$ 1,005,189
Price to Earnings Ratio	4.20
Operating Entity Value	$ 4,221,794
Plus: Nonoperating Assets	192,589
Less: Nonoperating Liabilities	10,000
Total Entity Value	$ 4,404,383
Rounded	$ 4,400,000

Percent of Sales

Gross Sales from Operations	$ 9,957,899
Comparable % of Sales Ratio	x 45.00%
Operating Entity Value	$ 4,481,055
Plus: Nonoperating Assets	192,589
Less: Nonoperating Liabilities	10,000
Total Entity Value	$ 4,663,644
Rounded	$ 4,700,000

Multiple of Book Value

Book Value	$ 1,421,757
Multiple of Book	x 3.00
Operating Entity Value	$ 4,265,271
Plus: Nonoperating Assets	192,589
Less: Nonoperating Liabilities	10,000
Total Entity Value	$ 4,447,860
Rounded	$ 4,400,000

Exhibit 13A-4.11

Dividend Payout Ratio

Schedule 13A-4.11 illustrates calculation of the value of Best Widgets, Inc. based on its dividend payout ratio. The valuer compares the market price per share of the guideline companies with the dividends actually paid as well as their payout capacity.

In this instance, the average payout capacity of the guideline companies was 14 percent. The valuer selected 10 percent for Best Widgets, Inc. because the company is considerably smaller and requires more of its cash flow to support its operations and, therefore, has a lower payout capacity. Stockholders of Best Widgets, Inc. also would expect a slightly lower yield from their company. Accordingly, the valuer selected 2.50 percent as the expected yield. As is illustrated in the calculation in schedule 13A-4.11, the company is valued at $4.2 million. If there were preferred stock, an adjustment would be made to reflect any dividends paid that would reduce the dividends available to the common stockholders. Since Best Widgets, Inc. had only one class of stock, this step was not necessary.

Schedule 13A-4.11
Valuation Based on Best Widgets, Inc.
Dividend Payout Ratio

Guideline Company Information

Guideline Company Information	Market Price	Dividends	Payout Capacity	Yield %
XYZ Widget Co.	$12.75	.40	15%	3.14%
Apple Widget Co.	$16.85	.65	20%	3.86%
Target Widget Co.	$12.90	.50	15%	3.88%
ABC Widget Co.	$15.95	.40	10%	2.51%
Widgets R Us	$17.95	.45	10%	2.51%
		Average	14%	3.18%
		Selected	10%	2.50%

Dividend Payout Conclusion

After-Tax Adjusted Net Income	$ 1,005,189
Payout Capacity	10%
Dividend Payout	$ 100,519
Selected Dividend Yield	÷ 2.50%
Common Equity Value	$ 4,020,756
Plus Nonoperating Assets	192,589
Less Nonoperating Liabilities	10,000
Total Entity Value	$ 4,203,345
Rounded	$ 4,200,000

Exhibit 13A-4.12

Financial Statement Projections

Schedules 13A-4.12a and 13A-4.12b show financial statement projections for five years based on the most recent year. The valuer either forecasts or obtains forecasts of the net income and operating cash flow of the business that will be used with the discounted future benefits method. The basis of these projections should be well documented and supported in the practitioner's workpapers and should be guided by the AICPA Statement on Standards for Accountants' Services on Prospective Financial Information, *Financial Forecasts and Projections.*

Schedule 13A-4.12a
Best Widgets, Inc.
Financial Statement Projections — Statement of Income and Cash Flow
Fiscal Year Ending December 31,

	19XZ	19YA	19YB	19YC	19YD	19YE
Total Revenue	$ 9,957,899	$10,455,794	$10,978,584	$11,527,513	$12,103,888	$12,709,083
Cost of Sales	5,423,896	5,695,091	5,979,845	6,278,838	6,592,779	6,922,418
Gross Profit	$ 4,534,003	$ 4,760,703	$ 4,998,738	$ 5,248,675	$ 5,511,109	$ 5,786,664
Adjusted Operating Expenses	2,566,844	2,695,186	2,829,946	2,971,443	3,120,015	3,276,016
Officer's Salary	225,000	236,250	248,063	260,466	273,489	287,163
Depreciation & Amortization Expense	232,770	72,372	88,372	104,372	120,372	136,372
Interest Expense	93,412	83,255	72,811	61,084	47,918	33,142
Operating Profit	$ 1,415,977	$ 1,673,641	$ 1,759,548	$ 1,851,312	$ 1,949,315	$ 2,053,972
Estimated Income Tax	449,449	668,452	702,763	739,414	778,557	820,356
Net Income	$ 966,528	$ 1,005,189	$ 1,056,785	$ 1,111,898	$ 1,170,759	$ 1,233,615
Depreciation & Amortization Expense		$ 72,372	$ 88,372	$ 104,372	$ 120,372	$ 136,372
Change Other Assets/Liabilities		(124,326)	(84,202)	(85,486)	(90,542)	(95,900)
Net Purchase of Fixed Assets		(100,000)	(80,000)	(80,000)	(80,000)	(80,000)
Change in Long-Term Debt & Equity		28,439	29,861	31,354	32,922	34,568
Operating Cash Flow		**$ 881,673**	**$ 1,010,815**	**$ 1,082,138**	**$ 1,153,510**	**$ 1,228,655**

Schedule 13A-4.12b
Best Widgets, Inc.
Financial Statement Projections — Balance Sheet

	19XZ	19YA	19YB	19YC	19YD	19YE
Cash	$ 88,563	$ 970,236	$ 1,981,051	$ 3,063,189	$ 4,216,700	$ 5,445,355
Accounts Receivable	191,807	211,477	222,051	233,154	244,811	257,052
Inventory	1,521,463	1,647,411	1,729,782	1,816,271	1,907,084	2,002,439
Other Current Assets	64,589	65,881	67,198	68,542	69,913	71,311
Current Assets	$ 1,866,422	$ 2,895,005	$ 4,000,083	$ 5,181,156	$ 6,438,509	$ 7,776,157
Fixed Assets	523,715	623,715	703,715	783,715	863,715	943,715
(Accumulated Depreciation)	0	(72,372)	(160,743)	(265,115)	(385,486)	(521,858)
Nonoperating Assets	192,589	207,996	224,636	242,607	262,015	282,976
Other Noncurrent Assets	15,488	16,262	17,076	17,929	18,826	19,767
Total Assets	**$ 2,598,214**	**$ 3,670,607**	**$ 4,784,766**	**$ 5,960,293**	**$ 7,197,579**	**$ 8,500,758**
Accounts Payable	$ 398,524	$ 427,704	$ 445,425	$ 467,696	$ 491,081	$ 515,635
Other Current Liabilities	454,254	463,339	472,606	482,058	491,699	501,533
Current Liabilities	$ 852,778	$ 891,043	$ 918,031	$ 949,754	$ 982,780	$ 1,017,168
Nonoperating Liabilities	10,000	10,500	11,025	11,576	12,155	12,763
Bank Loan	568,789	597,228	627,090	658,444	691,367	725,935
Total Liabilities	$ 1,431,567	$ 1,498,772	$ 1,556,146	$ 1,619,775	$ 1,686,302	$ 1,755,866
Common Stock	10,000	10,000	10,000	10,000	10,000	10,000
Retained Earnings	1,156,647	2,161,836	3,218,620	4,330,518	5,501,277	6,734,892
Total Stockholders' Equity	$ 1,166,647	$ 2,171,836	$ 3,228,620	$ 4,340,518	$ 5,511,277	$ 6,744,892
Total Liabilities & Stockholders' Equity	**$ 2,598,214**	**$ 3,670,607**	**$ 4,784,766**	**$ 5,960,293**	**$ 7,197,579**	**$ 8,500,758**

Exhibit 13A-4.13

Discounted Future Benefits

Schedule 13A-4.13 illustrates the application of the discounted future benefits method. The forecasted earnings are discounted at a rate of 25.7 percent yielding the present value of the future earnings to the enterprise.

The application of this method involves discounting the forecasted benefits stream back to the valuation date using present value techniques. The period beyond the forecast period assumes stabilization of the benefit stream and is known as the *terminal period.* The value derived for the terminal period applies the capitalization of benefits method and is then discounted back to present value. This is known as the *terminal value.*

The terminal value in this example is calculated using a 4-percent growth rate and is then capitalized at a rate equal to the discount rate less the growth rate. The terminal value is then discounted using the same discount factor used in the fifth year of the projection.

Schedule 13A-4.13
Best Widgets, Inc.
Valuation Based on Discounted Future Benefits

Period	Earnings	Discount Factor	Present Value
1	$ 1,005,189	.7955	$ 799,673
2	1,056,785	.6329	668,830
3	1,111,898	.5035	559,834
4	1,170,759	.4006	468,950
5	1,233,615	.3187	393,100
Terminal Value:			
5	5,912,256[1]	.3187	1,883,982
Net Nonoperating Assets & Liabilities			182,589
Present Value of Net Income			$ 4,956,958
Rounded			$ 5,000,000

[1] $1,233,615 x 1.04 = $1,282,960
$1,282,960 ÷ (25.7% - 4.0%) = $5,912,256

APPENDIX 13/B

SAMPLE MARKET COMPARISON DATA

The following is a sample printout of market data available from The Institute of Business Appraisers, Inc. The practitioner can use the price-to-sales ratio or the price-to-earnings ratio to perform reality checks on the results obtained with other methods of valuation.

This data is one of many tools available to the valuer. An understanding of its limitations is essential to assure that the practitioner uses it properly. Such limitations may include lack of information about the individual companies listed, the terms of the sale, and any possible adjustments made to the financial statements.

The Institute of Business Appraisers, Inc.
P.O. Box 1447, Boynton Beach, FL 33425 Phone: 407-732-3202

The information below is supplied in response to your request for data to be used in applying the "market data approach" to business appraisal. Because of the nature of the sources from which the information is obtained, we are not able to guarantee its accuracy. Neither do we make any representation as to applicability of the information to any specific appraisal situation.

Following is an explanation of the entries in the date table:

"Business Type" = Principal line of business
"SIC No." = Principal Standard Industrial Classification number applicable to business sold
"Ann. Gr." = Reported annual sales volume of business sold
"Ann. Earn." = Reported annual earnings before owner's compensation, interest and taxes
"Own. Comp." = Reported owner's compensation
"Sale Price" = Total reported consideration i.e. cash, notes, liabilities assumed, etc. excluding real estate
A = Asset Sale; S = Stock Sale
"Sales Price/Gross" = Ratio of total consideration to reported annual gross
"Price/Ann. Earn." = Ratio of total consideration to reported annual earnings
"Yr./Mo. of Sale" = Month and year during which transaction was consummated

DATA FOR MARKET COMPARISON

Business Type	SIC	Ann. Gr. $000's	Ann Earn. $000's	Own Comp. $000's	Sale Price $000's	Sale Pr./ Gross	Price/ Ann Earn.	Geographical Location	Yr/Mo of Sale
Printer, specialized	2752	1228	95		529 S	0.43	5.57	Canada	90/92
Commercial printing		530	45		221 A	0.42	4.91	Midwest	90/02
Printing Quick-Franchise		259	7		200 A	0.77	28.57	Arizona	90/02
Commercial printer		1600	275		750 A	0.47	2.73	New England	89/06
Printing		70	22		63	0.90	2.86	Florida	88/10
Print shop		235	114	30	86 A	0.37	0.75	California	88/08
Printing, offset		933	201		550	0.59	2.74	Mid-Atlantic	88/04
Printer		279	78		300	1.08	3.85	Mid-Atlantic	87/09
Printing		210	44		75	0.36	1.70	Texas	87/01
Printing & typesetting		181	46	25	65 A	0.36	1.41	California	86/12
Printing		50	21		27	0.54	1.29	Texas	86/06
Print shop		205	34	25	90 A	0.44	2.65	California	86/05
Printing shop		365	108		250	0.68	2.31	Texas	86/04
Print shop retail/whsle		17	8		24	1.41	3.00		86/02
Print shop		46			27	0.59		Cal/Ariz/Nev	85/09
Printing		65	2		46	0.71	23.00	Texas	86/06

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BIBLIOGRAPHY

Business Valuation Review. Denver, Colo.: American Society of Appraisers, quarterly.

Desmond, Glenn M., and John A. Marcello. *Handbook of Small Business Valuation Formulas.* Los Angeles: Valuation Press, 1993.

Desmond, Glenn M., and Richard E. Kelley. *Business Valuation Handbook.* Marina Del Rey, Calif.: Valuation Press, 1977.

Dewing, A.S. *The Financial Policy of Corporations.* New York: The Ronald Press Company, 1953.

Federal Reserve Bulletin. Washington, D.C.: Board of Governors of the Federal Reserve System, monthly.

Financial Research Associates. *Financial Studies of the Small Business*. Winter Haven, Fla.: Financial Research Associates, annual.

Fishman, Jay E., Shannon P. Pratt, J. Clifford Griffiths, and D. Keith Wilson. *Guide To Business Valuations.* Fort Worth, Texas: Practitioners Publishing Co., 1991.

Horvath, James L. *Valuing Professional Practices*. Don Mills, ON, Canada: CCH International, 1990.

Howitt, Idelle A., and Susan E. Schechter. *Federal Tax Valuation Digest.* Boston: Warren Gorham & Lamont, annual.

Ibbotson Associates. *Stocks, Bonds, Bills and Inflation.* Chicago, Ill.: Ibbotson Associates, annual.

IRS Valuation Guide For Income, Estate and Gift Taxes. Chicago, Ill.: Commerce Clearing House, 1987.

Mercer, Z. Christopher. *Valuing Financial Institutions.* Homewood, Ill.: Business One, 1992.

Mergers & Acquisitions Magazine. Philadelphia, Pa.: MLR Publishing Co., bi-monthly.

Mergerstat Review. Chicago, Ill.: Merrill Lynch, annual.

Miles, Raymond C. *Basic Business Appraisal.* New York: Wiley Interscience, 1984.

Moroney, Robert E. "Why 25% Discount for Nonmarketability in One Valuation, 100% in Another?" *Taxes:* May, 1977.

Pratt, Shannon P. *Valuing A Business*. Homewood, Ill.: Dow Jones-Irwin, 1989.

Pratt, Shannon P. *Valuing Small Businesses and Professional Practices.* Homewood, Ill.: Dow Jones-Irwin, 1986.

Robert Morris Associates. *Annual Statement Studies.* Philadelphia, Pa.: Robert Morris Associates, annual.

Schilt, James H. "A Rational Approach to Capitalization Rates for Discounting the Future Income Stream of a Closely Held Business," *Financial Planner.* January, 1982.

Troy, Leo. *Almanac of Business and Industrial Ratios.* Englewood Cliffs, N.J.: Prentice-Hall, annual.

Trugman, Gary R. "A Threat to Business Valuation Practices," *Journal of Accountancy.* December, 1991.

U.S. Industrial Outlook. Washington, D.C.: U.S. Department of Commerce, annual.

The Value Line Investment Survey. New York: Value Line Publishing, Inc., weekly.

West, Thomas L. *Business Broker's Reference Guide.* Concord, Mass.: Business Brokerage Press, 1993.

West, Thomas L., and Jeffrey D. Jones, Editors. *Handbook of Business Valuation.* New York: John Wiley & Sons, Inc., 1992.

Zukin, James H. *Financial Valuation: Businesses and Business Interests.* New York: Maxwell McMillan-Rosenfeld Launer, 1990.

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III Planning Services

Part III—Planning Services

20/100 BUSINESS PLANNING

CONTENTS

20/100 BUSINESS PLANNING

20/105 SCOPE OF THIS PRACTICE AID

.01 Establishing long-range goals and effective methods of achieving them is essential to successful business management. Many businesses, however, identify only short-term objectives. They usually develop policies and react to immediate situations without proper concern for the long-term consequences of their decisions. Many factors may lead management to recognize the need for developing long-term goals and adopting specific action plans. The need for planning may also stem from third-party requirements, such as information for a lending institution[1] or for a potential investor or buyer.

.02 Clients often request practitioners to assist in goal development and long-range planning to make use of the practitioner's skills and objectivity. Clients recognize that their CPAs are familiar with their organizations and operations as a result of other services already provided. New clients may approach CPAs for assistance because of their broad professional experience.

.03 In some cases the practitioner may recognize a client's need for long-range planning and recommend that a plan be developed. If the recommendation is acted on, a consulting services engagement with the client may follow.

.04 This practice aid introduces concepts useful in a consulting services engagement[2] to assist clients in business planning. It describes a typical engagement approach, including how the engagement results might be documented in a written plan. It also describes an alternative approach for providing limited assistance. Illustrative case studies are included. The illustrations should not be interpreted as presenting preferred approaches for this type of client assistance. Practitioners seeking more detailed information on business planning are referred to the literature cited in the Bibliography.

.05 This practice aid does not address reporting requirements for financial statements because the engagement output report may be intended for internal use only. If financial statements for third-party use are required or an attestation engagement is involved in some way, the practitioner needs to refer to appropriate AICPA literature for guidance. Many of the activities discussed may not be applicable in all client situations. For example, the practitioner

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[1] See section 8/100, "Obtaining Funds for a Small Business."

[2] See the Statement on Standards for Consulting Services (SSCS) No. 1., *Consulting Services: Definitions and Standards* (AICPA *Professional Standards,* vol. 2, CS sec. 100).

may already have knowledge of the client's operations and industry, thus reducing the time required for fact-finding; or the client may prefer to participate in the engagement in a manner other than those described in this practice aid. The abbreviated planning sessions (limited-scope engagements) discussed in Appendix 20/B assume the practitioner has this knowledge of the client.

.06 Some of the information contained in this document has also appeared in other practice aids; however, the inclusion of the information was deemed necessary for the presentation of this subject.

20/110 DEFINITIONS

The following terms are defined as they are used in this practice aid.

.01 *Mission statement.* A broad description of the organization's purpose.

.02 *Goal.* A desired end result. Goals are set in various areas to achieve the organization's purpose. Goals are ordinarily broad in focus but specific enough to be useful in planning.

.03 *Planning.* The process by which the mission of an entity is defined; its economic environment, including resources and liabilities, is evaluated; its goals are established; and the programs, projects, and tasks necessary to achieve those goals are determined.

.04 *Program.* A broad course of action that contributes to achieving a specific goal. A program directs the development of necessary projects and tasks.

.05 *Project.* A specific course of action comprising one or more tasks undertaken to implement a plan.

.06 *Task.* An identifiable action that contributes to accomplishing a project.

20/115 PRACTITIONER INPUT

.01 In assisting a client with business planning, the practitioner can provide an objective and structured approach. This practice aid focuses on assisting the client with the planning process rather than on providing technical assistance; however, in many engagements the client may ask the practitioner to provide assistance in such areas as the following:

- Accounting systems
- Financing methods
- Employee compensation and benefits
- Individual and corporate taxation

- Estate taxation and planning
- Organizational and management structure
- Budgeting
- Equipment acquisition[3]
- Unique financial characteristics of the client's industry[4]
- Data processing[5]
- Marketing

20/120 BENEFITS OF GOAL SETTING

.01 The value of carefully conceived business goals and plans cannot be overestimated. They provide many benefits, including the following:

.02 *Improved resource utilization.* Goal setting and planning require management to evaluate the company's resources and thereby better determine capabilities and limitations.

.03 *Increased employee motivation.* The unified company direction established by goal setting and planning often eliminates frustration and provides motivation for individuals.

.04 *Improved understanding of opportunities, problems, and weaknesses.* Planning can stimulate programs for strengthening the organization.

.05 *Greater organizational control.* Goal setting and planning encourage adherence to project completion dates and standards of performance, which are essential to maintain organizational control.

.06 *A source of client information for third parties.* The client's written objectives and plans may be useful in seeking financing, in mergers or sales, or in other client situations involving third parties.

.07 *Client education.* An in-depth study of the client's organization may be necessary to set goals and develop a general business plan. Client personnel can learn much from this study process.

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[3] See section 12/100, "Preparing Financial Models."

[4] See section 10/100, "Financial Ratio Analysis."

[5] See section 41/100, "Microcomputer Systems," and section 43/100, "Software Package Evaluation and Selection."

20/125 ENGAGEMENT APPROACH

.01 A client may request a consulting services engagement for assistance in establishing business goals and developing plans, or the practitioner may recommend it, based on knowledge of the client's operations and need for planning. When a client requests assistance, the practitioner may want to determine whether there are any underlying reasons or special purposes for the request. The practitioner needs to know the pertinent facts to help the client develop goals and plans that are appropriate and meet the needs of the organization.

.02 In deciding whether to accept the engagement, the practitioner considers the nature of the client's business and the specific request for service in light of the firm's standards, policies, and capabilities. If the request for services is from a prospective client, the practitioner might ask the following pertinent questions:

a. Who referred the prospective client?

b. Has the prospective client previously engaged another accountant, and if so, why is a new one being sought?

c. Is the prospective client seeking to establish a continuing relationship with the practitioner or asking for one-time-only assistance?

d. How long has the client been in business?

e. Who are the owners-partners?

f. What is the nature of the client's current business?

g. What is the financial history of the client's current business?

h. Were there any earlier business ventures, and what resulted from them?

i. With whom does the client bank?

j. What law firm does the client use?

.03 The practitioner may conduct a brief preliminary fact-finding survey to develop an understanding of the client. The most critical factors are the benefits the client anticipates and what the practitioner needs to do to accomplish the engagement objectives. The time devoted to a preliminary survey may be less for an existing client because of the practitioner's familiarity with the client's operations, personnel, and other key factors.

.04 From the information obtained during discussions with the client and from the preliminary fact-finding survey, the practitioner might prepare notes for reaching an oral understanding with the client or might develop a written engagement proposal. If the client accepts the proposal, the practitioner develops an engagement schedule, which establishes target dates or time allocations and the responsibilities of persons involved in the engagement work phases and activities.

.05 Although practitioners may find other approaches to be appropriate, the following six-phase engagement approach is generally suitable.

Phase 1—Gathering Essential Information

.06 When assisting the small business client in developing a business plan, the practitioner needs to gather sufficient information to identify existing and potential strengths and weaknesses in the client's operations, finances, and organization. Plans for the future will include strategies for maximizing strengths and minimizing weaknesses. The following areas need to be researched.

.07 **Operations.** To plan effectively, the practitioner needs to be familiar with the client's products and services and how they are affected by purchasing, production, and marketing. Such information may include environmental conditions, industry competition, and customers' needs.

.08 **Finances.** Effective planning requires an understanding of the financial conditions and trends of the business. Key areas are profitability, cash flow, capital leverage, capital requirements, and debt coverage.

.09 **Organization.** The practitioner needs to have a working knowledge of the business's organization, since it impacts operations and decision-making. Such knowledge includes the various positions and functions, their interactions, and the personnel in them.

.10 *Ownership structure.* In assisting clients with business planning, the practitioner needs to understand the client's ownership structure as well as its development, because this information can influence how the client accepts and implements the practitioner's advice. The practitioner also needs to know who the principals are, what their involvement and interest in the business are, and whether the current structure enhances or limits alternatives in the planning strategy.

.11 *Key personnel.* The practitioner needs to become familiar with the duties and responsibilities of key personnel and how they interact. In so doing, the practitioner will be better able to assess their capabilities and limitations, which will, in turn, determine their roles in executing a business plan. Often, a planning engagement focuses on developing alternatives that will allow the owners to achieve personal goals outside the business environment.

.12 **Recognition of Personal Objectives.** Owners, family members of owners, and key personnel can exercise strong influence over business decisions, and therefore their personal objectives and philosophies are crucial to the development of a successful business plan. The plan should be acceptable to these groups; if it is not, it probably will fail.

.13 **Methods of Gathering Information.** The practitioner may acquire data regarding operations, finances, and organization, including the attitudes of owners and key personnel, through a combination of the following methods.

.14 *Reviewing historical documents.* Through a review of available documents, the practitioner can obtain much of the information needed to assist the client in planning. Such information includes the following:

- Financial statements (including interim financial statements) and management letters
- Debt and lease agreements
- Budget and other internal management plans and reports
- Income tax returns
- Minutes of board and committee meetings
- Personnel files
- Ownership data, for example, partnership agreements or buy-sell agreements

.15 *Comparing client activity to industry data.* Pertinent statistical and financial information enables the practitioner to better understand why the client may not be operating effectively in certain areas. Analyzing a client's financial ratios and comparing them with ratios of similar entities can provide useful planning data.[6] Sources for these ratios include Dun & Bradstreet, Robert Morris Associates, various trade associations, and government publications.

.16 *Inspecting physical facilities.* The practitioner inspects the client's physical facilities to understand and observe employment conditions, expansion potential, inventory conditions, storage requirements, equipment condition and usage, and other factors. Client personnel most familiar with plan operations usually accompany the practitioner so that they can answer any questions that arise.

.17 *Interviewing key personnel.* The personal interview helps to determine the individual goals and preferences of management and other key personnel. It often uncovers new problems or potential solutions to known problems. The practitioner might find it advantageous to interview other employees in addition to management and key personnel, in order to gain a balanced understanding of the employees' perception of operations, supervision, and employment conditions.

.18 *Interviewing external parties.* The practitioner often learns important information about the client's business from sources outside the organization. A third party can have valuable

[6] See section 10/100, "Financial Ratio Analysis."

insights into the client's business that the client's personnel themselves have not considered. With the client's permission, the practitioner interviews customers, bankers, attorneys, suppliers, and others with the understanding that they, too, will benefit if the client's operations improve.

.19 *Conducting a joint fact-finding session.* A common technique in the planning process is a joint session with key personnel, management, and owners to further define strengths and weaknesses. The participants gain a sense of greater involvement in the planning process and a better understanding of the viewpoints of others.

.20 *Using written comments and questionnaires.* Key staff members' written comments and answers to questionnaires provide another effective method of gathering information about a client's strengths, weaknesses, problems, and opportunities. Although personnel may be reluctant to express opinions in the company of others, they may be quite comfortable with written memos, especially if they can submit comments anonymously.

Phase 2—Documenting the Data

.21 Client characteristics identified during the fact-finding process form the foundation of the business plan, and they need to be summarized for evaluation and analysis. Documentation may take a variety of forms. One method is to use fact sheets for each category. Summary statements of strengths and weaknesses reinforce the benefits that fact sheets provide. Documenting the mission statement also contributes to the plan because the statement serves as a guide in formulating goals.

.22 **Fact Sheets.** The practitioner may prepare fact sheets for such categories as operations, finance, organization (including ownership structure and key personnel), personal goals and capabilities of owners and key personnel, and facilities. Each fact sheet outlines the current circumstances and describes their impact on the planning process and the plan itself. The fact sheet could include—

a. A brief description of the current situation and some historical explanation of its development.

b. An evaluation that identifies the elements of the current situation that will assist the client in achieving desired results and those that will contribute to problems or weaknesses.

c. Conclusions about the current situation.

.23 These points are important for effective planning. Additional material, such as organizational charts or other illustrations, can be useful in communicating information to the client. The illustrative fact sheet provided in table 20-1 presents one possible format for presenting information. Practitioners may find other formats more appropriate.

.24 **Summary Statements of Strengths and Weaknesses.** In addition to preparing individual fact sheets that include strengths and weaknesses, the practitioner prepares summaries of strengths and weaknesses. A statement of strengths identifies areas of significant capabilities and resources, which the practitioner may draw on to improve the client's operations. A statement of weaknesses focuses on potential or existing problem areas, which will require corrective procedures. A careful evaluation of the impact of strengths and weaknesses is very important. Summarizing them ensures that they will be addressed as the planning process continues.

.25 Following are some commonly identified areas of strength or weakness, in the areas of personnel, plant and equipment, finances, public relations, and operations.

.26 *Personnel*

- Employee turnover
- Capabilities of staff, including management and key personnel

.27 *Plant and Equipment*

- Adequacy of facilities
- Condition of the physical plant
- Condition of equipment

.28 *Finances*

- Working capital
- Debt-to-equity ratio
- Budgets
- Accounts receivable aging
- Bad-debt experience

.29 *Public Relations*

- Reputation
- Product (or service) acceptance

Table 20-1
Illustrative Fact Sheet:
Facility Layout for ABC Restaurant & Lounge

Description of the Current Situation

ABC Restaurant & Lounge consists of four components:

1. Restaurant
2. Kitchen
3. Lounge
4. Bar

ABC was opened in 19XX as a family restaurant. Ten years later, a combination bar and lounge located next door was purchased. The area has inadequate parking space.

Evaluation of the Situation

Strengths

1. The restaurant attracts a family dinner crowd.
2. An established reputation for value brings diners back often.

Weaknesses

1. Lack of direct access from the lounge and bar to the restaurant requires each area to have its own staff, which results in higher-than-normal wage costs.
2. Parking is limited; there is no customer parking lot.
3. The inability to serve alcoholic beverages in the restaurant limits its per-check gross profit margin.
4. The lounge's inaccessibility to the kitchen reduces potential sales in the lounge.

Conclusion

Inasmuch as the profitability of this restaurant, bar, and lounge is based on the ability to hold down labor costs, the layout of the facility has been a hindrance. To improve profits, the layout needs to be redesigned for easier access between areas.

.30 *Operations*

- Internal controls
- Seasonal fluctuations

.31 **Mission Statement.** The mission statement expresses the entity's purpose and reason for being. Ample thought should be given to its development, since it will guide the formulation of the plan. It provides the general criteria for establishing goals and accountability for results. The following are examples of mission statements:

- To provide the local business community with a primary source for computer equipment and repair services.
- To publish retail industry magazines and newsletters.
- To supply the worldwide television industry with state-of-the-art cameras and film.

Phase 3—Developing Goals

.32 Once the practitioner has documented and reviewed the pertinent facts, summarized strengths and weaknesses, and developed the mission statement, the client can formulate various long-range goals, some of which will ultimately be selected and implemented. The alternative goals would focus on the next three to five years, because long-range planning does not inhibit goal setting as shorter-range planning often does.

.33 The key factors in developing alternative goals are the practitioner's input, client personnel's capabilities and attitudes, and environmental conditions. One approach is for the practitioner to conduct a joint planning session with key members of the client's staff. Other appropriate approaches may be a survey or individual interviews with key personnel. The practitioner would serve as a catalyst and guide during goal development.

.34 Goals provide benchmarks for evaluating performance. The following general areas are appropriate for goal development.

- Growth
- Production
- Organization
- Internal operations
- Profitability

- Marketing
- Image
- Takedown

.35 **Using Financial Projections.** Financial projections can help the client anticipate the short- and long-range financial effects of alternative goals by providing numerous "what if" scenarios, which are useful in developing a business plan.[7] If a plan includes financial projections, it is also advisable to incorporate historical financial information to provide for comparison.[8] Such comparison often leads to a better understanding of proposed goals.

.36 **Evaluating Alternative Goals.** Once alternative goals have been developed, the practitioner assists the client in evaluating and selecting them. The extent to which alternative goals are evaluated depends on many variables, such as the client's size, the degree of risk acceptable to management, and the need for external financing. The most appropriate goals are realistic and consistent with the mission statement.

.37 **Documenting Selected Goals.** Selected goals need to be documented. Documentation might consist of writing descriptions with measurement criteria to monitor progress within the time prescribed for achieving the goals. The primary reasons for documenting goals are to (*a*) understand them clearly, (*b*) apply them consistently, and (*c*) reevaluate them. Formulating understandable goals aids in determining which tasks are necessary to accomplish the goals. An example of a clear goal is "to increase sales revenue by $1 million for the year ending December 31, 19XX."

Phase 4—Establishing Programs, Projects, and Tasks

.38 Establishing goals allows the client to develop the programs, projects, and tasks that will promote goal achievement.

.39 **Programs.** As defined earlier, programs are broad courses of action that contribute to the achievement of specific goals. A program directs necessary projects and tasks. The difference between the goal and the program, as well as the correlation between the two, is illustrated in the following sample excerpt from a business plan:

Goal: Increase sales revenue by $1 million for the fiscal year ending December 31, 19X5.

Program 1: Establish an industrial sales division by November 30, 19X1.

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[7] See section 10/100, "Financial Ratio Analysis," and section 12/100, "Preparing Financial Models."

[8] See appropriate AICPA guidance on reporting on both historical and prospective financial statements.

Program 2: Initiate an appropriate incentive program for sales personnel.

.40 A program that helps accomplish one goal may also help accomplish another goal. Once programs have been developed to support various goals, they need to be reviewed for overall consistency.

.41 **Projects.** Defining a program allows the client to identify projects—specific courses of action that will be consistent with the program and will help achieve a goal. A project consistent with the sample goal and programs could be to "develop the organizational structure of the industry sales division and define its responsibility."

.42 **Tasks.** Tasks are the activities necessary to complete a project. For example, the following are several tasks that might be needed to develop an industrial sales division project used in the sample goal and programs in paragraph .36 above:

a. Secure a manager for the industrial sales division by June 1, 19X1.

b. Determine the physical space requirements for the industrial sales division and reconcile them with the availability at all locations by January 1, 19X2.

c. Determine equipment requirements of the industrial sales division by November 1, 19X2.

.43 **Developing, Evaluating, and Selecting Programs, Projects, and Tasks.** Once goals are established, the practitioner assists the client in developing programs, projects, and tasks to achieve the goals. The client and the practitioner then evaluate the proposed programs, projects, and tasks. Not all programs, projects, or tasks may be immediately feasible, and they may not be supportable with adequate resources within the original time frame. The client and the practitioner evaluate and prioritize the activities and select the most appropriate ones. Decisions are the client's responsibility.

.44 **Gaining Staff Acceptance of Programs, Projects, and Tasks.** The final step before formalizing the business plan is to gain the acceptance of the selected programs, projects, and tasks by appropriate client personnel. Acceptance includes assuming responsibility for completing assignments within prescribed time limits.

Phase 5—Summarizing the Client's Plan and Preparing the Final Report

.45 Once goals, programs, projects, and tasks have been determined, the practitioner formalizes the business plan in accordance with the client's decisions. The plan needs to be easy to modify, if necessary, and to provide adequate detail for evaluating progress. The final report might include the following elements:

a. Introduction

b. Mission statement

c. Goals

d. Plan implementation

.46 Introduction. The introduction might include such information as a brief history of the client, its current strengths and weaknesses, the reason for developing the plan, and the benefits to be derived. Much of this section is a summary of the data obtained during the fact-finding process.

.47 Mission Statement. The documented business plan includes the mission statement developed earlier in the engagement. This statement reflects the overall purpose of the business.

.48 Goals. The plan clearly and concisely states the selected goals by either listing them or presenting them in order of priority.

.49 Plan Implementation. The implementation section describes the programs, projects, and tasks that the client has selected to accomplish the chosen goals. The practitioner may organize this section either chronologically or according to goals. To provide for continuous monitoring, the projects and tasks need to specify the persons responsible and the reporting dates.

Phase 6—Following Up and Evaluating Progress

.50 To ensure continued effective use of the plan, the client should initiate a monitoring system. The following methods can be used for following up and evaluating results.

.51 Monitoring Performance Through Progress-Reporting Dates. One method of evaluating progress is to establish reporting dates and monitor activity up to those dates. Reports can be written or oral and presented formally or informally. The manner of reporting depends on the client's operating methods and the complexity of the plan.

.52 Establishing Action Dates. Action dates specify when particular actions should be taken or results achieved. Projects usually stay on schedule with action-date reporting because assigned personnel are less likely to procrastinate if they are held accountable on a continuing basis.

.53 Comparing Projected Data to Actual Results. Projected financial and operations data can be compared with actual results. The comparison measures the progress made toward attaining goals and provides an opportunity to make adjustments, if necessary.

.54 Reviewing the Plan. Long-range plans need to be periodically reviewed for possible revision. The review considers new goals, programs, projects, and tasks as well as the continued appropriateness of those previously defined. Even the mission statement may require revision. The extent of practitioner input in plan revision may be determined by the client's ability to recognize changing needs.

APPENDIX 20/A

ILLUSTRATIVE BUSINESS PLANS

The planning activities discussed in this practice aid are illustrated in the following sample proposal, transmittal letter, and reports. The sample reports can guide the practitioner in developing an actual report that helps the client understand the plan's content, implementation, and modification.

Details in the sample reports are limited in order to provide easy-to-follow illustrations. In an actual planning engagement report to the client, the practitioner would include more details about general information, as well as goals, programs, projects, and tasks.

If asked by the client to include financial statements in the engagement report, the practitioner follows the appropriate professional standards.

Exhibit 20A-1

Sample Proposal for a Long-Range Business Planning Engagement

CPA & Company
Fairview, USA

May 20, 19X5

Mr. John Sommers, Chairman of the Board
Key Industries, Inc.
Fairview, USA

Dear Mr. Sommers:

As requested, we propose to assist Key Industries, Inc., in developing a long-range business plan. The plan will assist you in identifying areas of your operations that need improvement.

We will do the following:

1. Assist management in identifying company personnel who will serve as a project committee. This committee will approve planning activities and monitor the project's progress and completion.
2. Evaluate existing operations to determine strengths and weaknesses. Our staff and the project committee will conduct a fact-finding study by interviewing company management and personnel, reviewing available documentation, and holding discussions with external parties.
3. Review the results of the fact-finding study.
4. Develop alternative goals, programs, projects, and tasks in conjunction with the project committee and other management personnel.
5. Evaluate the alternatives to help the project committee make selections.
6. Submit a final report to the project committee for review. It will describe *(a)* the development of the planning process, *(b)* the mission statement, *(c)* goals, programs, projects, tasks, and the staff assignments necessary to implement them and follow them up, and *(d)* prospective financial information to project the financial impact of the proposed changes.
7. Submit a final report to the board of directors for acceptance.

The success of the plan depends on the input of the project committee and other company personnel who participate in the development and follow-up process. We have attached resumes of those individuals on our staff who will be involved with the engagement.

Our fees are based on the individuals assigned to the engagement and on out-of-pocket expenses incurred. We have provided an estimate of the cost of this engagement as an attachment to this letter. We will bill you monthly as work progresses. Payment is due on your receipt of our bills.

If you accept this proposal, we will prepare a separate letter of understanding that reiterates the major components explained herein and other items deemed necessary.

Sincerely,

Robert Crenshaw, CPA
Partner
CPA & Company

Exhibit 20A-2

Sample Transmittal Letter

CPA & Company
Clinton, Pennsylvania

February 28, 19X4

Mr. Charles C. Cook
President and General Manager
Vacationland Resort, Inc.
Hopsville, Pennsylvania

Dear Mr. Cook:

We are pleased to submit a long-range business plan for Vacationland Resort, Inc. We understand that you expect to retire from the presidency of your business soon and wish to prepare for an orderly transition of responsibilities and duties to your successor by developing a new organizational structure. The attached report represents a strategy for effecting this change. It is the product of our efforts and the efforts of numerous individuals in your organization.

The planning process included gathering essential information; documenting it; developing strategic goals; establishing programs, projects, and tasks to accomplish the goals; and preparing the final report. Successful implementation of the plan can best be achieved through periodic review and revision. We would be pleased to assist you in that effort.

We appreciate the cooperation afforded us during the engagement and look forward to assisting you further with your plans and any other matters that may require attention.

Sincerely,

Joseph Barnes, CPA
Partner
CPA & Company

Exhibit 20A-3

Sample Report for HiQual Shoe Company

Background Information

Thomas Burns and his brother Phillip founded HiQual Shoe Company in 1950. To begin operations, they purchased outright a two-story building in the heart of the downtown shopping district. HiQual carries a limited line of conservatively styled, high-quality, high-priced men's, women's, and children's shoes. Although style selection is limited, HiQual provides a complete range of sizes in the available styles and pays particular attention to proper fit. Over the years, HiQual has become known as the place to go for hard-to-find sizes as well as for dependable and practical shoes.

HiQual also provides a full range of orthopedic services. These services include the custom design and manufacture of specialty shoes, often to fill doctors' prescriptions.

Thomas Burns is responsible for orthopedic operations. His duties include maintaining contact with a network of doctors, keeping abreast of technological changes in the manufacture of orthopedic shoes, maintaining required certifications by attending in-service training programs, and training employees in orthopedic-fitting techniques. Phillip Burns, who died in 1971, had little interest or expertise in the orthopedic aspects of the business and was mainly responsible for wholesale shoe buying and for day-to-day store operations.

From 1960 through 1972, HiQual expanded operations by opening new locations. Currently, HiQual operates six retail outlets, including its original downtown location. Each outlet offers the same line of high-quality, high-priced shoes as well as orthopedic services.

When Phillip Burns died, his 50-percent ownership of the company was divided equally between his two sons, Bill and Ed, who had entered the business in 1965. Since Phillip's death, Thomas Burns has assumed overall responsibility for company operations and continued his role in the orthopedic aspects of the business.

A continuing decline in sales over the past three years, increasing debt levels, and problems resulting from an ill-defined organizational structure have led the company to seek assistance in developing a long-range plan.

Personnel

President. Thomas Burns, cofounder and 50-percent owner, is responsible for overall operations. However, he is most interested in and spends the majority of his time on the orthopedic aspects of the business. Before his brother's death, Thomas personally trained all employees in proper fitting and orthopedic techniques, but in recent years he has discontinued this training because of time constraints.

Men's shoes buyer. Frank Burns, Thomas's son, joined the company in 1967 after receiving an MBA. He is responsible for buying men's shoes and for overseeing the day-to-day operations of two of the six retail outlets. Although his father has encouraged him to become more knowledgeable about and active in the orthopedic end of the business, Frank has shown little interest.

Women's shoes buyer. Bill Burns, Thomas's nephew and a 25-percent owner, is responsible for buying women's shoes and for overseeing the day-to-day operations of two retail outlets. Bill joined the company in 1965 as a floor salesman and served as a store manager for three years before becoming the women's shoes buyer.

Children's shoes buyer. Ed Burns, Thomas's nephew and a 25-percent owner, is responsible for buying children's shoes. Ed joined the company in 1965 as a floor salesman and, after a few years, began to spend a portion of his time working with Thomas on the orthopedic aspects of the business. Although reasonably knowledgeable about the orthopedic business, Ed has not acquired the necessary certifications or licenses to continue the business should Thomas retire. Because of his involvement with orthopedics, Ed has not assumed responsibility for overseeing any store operations, unlike Frank and Bill.

Store managers. There are six store managers, each responsible for the day-to-day operations of one of the company's retail outlets. Two of the managers report to Thomas, two to Frank, and two to Bill. All the managers are long-time employees of the company with an average tenure of twenty-three years.

Employees. The company currently employs thirty-five people in addition to store managers.

Facilities

Of the six retail stores the company operates, two are located in newer, enclosed shopping malls, three are located in older shopping centers, and the original store is located in a downtown shopping district. The second story of the downtown location houses orthopedic production facilities. The company owns its downtown location and has long-term leases on its five other locations.

Merchandising

Major wholesale shoe purchases for inventory are normally conducted twice a year, in conjunction with manufacturers' shows and promotional campaigns. Each buyer assumes responsibility for (1) monitoring inventory turns by style and size, (2) attending appropriate manufacturers' shows, and (3) evaluating and defining inventory needs.

Each year a total buying budget is established, and then it is divided into three separate budgets for men's, women's, and children's lines. All four Burns family members participate in developing the overall budget and the line budgets. Store managers' recommendations are considered during this process, but typically each buyer advocates increasing the portion of the budget allocated to his line relative to those of the other lines.

In recent years, sales and buying budgets have declined. In response to these declines, buyers have tended to stretch their budgets by purchasing lower-priced and lower-quality shoes. Buyers, particularly in the women's and children's lines, have also tended to anticipate changing shoe fashions rather than to concentrate on traditional high-quality and conservatively styled lines.

Each buyer is also assigned an annual budget for local promotions (for example, newspaper ads and point-of-purchase displays) and is then responsible for developing promotions and special sales on a chainwide or store-by-store basis for his particular shoe line.

Sales and Financial Trends

Data about sales and the average prices for a pair of shoes over the last three years are displayed in the following tables. Table 20A-3.1 shows a substantial decline in sales in all lines. Table 20A-3.2 shows that average sale prices per pair have increased at a rate well below prevailing inflation rates. Trends in dollar sales are given by line in table 20A-3.3 and by store in table 20A-3.4.

The steady decline in sales over recent years (in dollars earned and number of pairs sold) and the failure to effect needed price increases have significantly reduced the company's gross margins. Additionally, the company has not been entirely successful in reducing operating and administrative costs in response to declining sales. Liquidity problems have reduced the company's ability to properly replace inventory, contributing to further sales losses through stock outs and lack of product. Return on equity over the last several years has averaged minus 4 percent.

External Factors

Opportunities

- *Increasing consumer emphasis on quality.* Marketing studies demonstrate that consumers are increasingly willing to spend more for quality merchandise. The company's reputation as a quality leader in shoe retailing should enable it to capitalize on this trend.

- *Increasing demand by women for both comfort and style in work shoes.* A growing number of women in the work force provides the company with a significant target market for its traditional line of women's shoes.

Potential Impediments

- *Demographic shifts.* A declining population of children is significant because about half the company's sales have historically been to this market.

- *Increasing style consciousness, especially in children's shoes.* Parents are increasingly purchasing "fashionable" shoes (for example, moon shoes and multicolored sneakers) for their children. This trend runs counter to the company's tradition of providing conservatively styled and practical children's shoes.

- *Holistic health movement.* This movement has been accompanied by less direct radical intervention in nondisabling foot problems of children (that is, the trend is to allow a child to grow out of the problem naturally).

- *Popularity of self-service discount shoe stores.* The growth of such shoe outlets is expected to place additional pressure on prices.

Table 20A-3.1
Number of Pairs Sold

Shoe Line	*19X1*	*19X2*	*19X3*	*Decline 19X1-19X3 (%)*
Children's	21,800	21,600	17,700	19
Women's	11,700	11,250	10,100	14
Men's	4,150	3,600	3,400	18
Total regular lines	37,650	36,450	31,200	17
Orthopedic	3,200	2,250	1,850	42
Total pairs	40,850	38,700	33,050	19

Table 20A-3.2
Average Sales Price per Pair

Shoe Line	*19X1*	*19X2*	*19X3*	*Annualized Increases (%)*
Children's	$19	$20	$21	5
Women's	44	45	46	2
Men's	82	85	87	3.5
Average regular lines	48	50	51	2.5
Orthopedic	72	75	78	4
Grand average	$54	$56	$58	2.5

Table 20A-3.3
Annual Sales by Line (in thousands)

Shoe Line	*19X1*	*19X2*	*19X3*	*Decline 19X1-19X3(%)*
Children's	$ 414	$ 432	$ 372	10
Women's	515	506	465	9
Men's	340	306	296	13
Total regular lines	1,269	1,244	1,133	
Orthopedic	230	169	144	37
Total sales	$ 1,499	$ 1,413	$ 1,277	15

Table 20A-3.4
Annual Percent of Sales by Store

Store	*19X1*	*19X2*	*19X3*
1	29	31	28
2	25	24	24
3	8	12	15
4	7	11	14
5	14	9	8
6	17	13	11
	100	100	100

Evaluation of the Current Situation

Strengths

- Reputation as a quality leader
- Specialized knowledge and expertise in orthopedics
- Two newer stores in good locations
- Potential to obtain significant quantity discounts from suppliers

Weaknesses

- Ill-defined organizational structure (no clear leadership; major duties appear to have been assigned to provide equality of responsibility among the Burns family members.)
- Incompatibility of owners
- Lack of liquidity and mounting debt
- Declining sales (in dollars and pairs sold)
- Uncoordinated promotional/advertising activities

Mission Statement

The company's fundamental and immediate mission is to return to profitable operations through a combination of cost cutting and special promotions. Its ultimate goal is to maintain profitability by renewing its long-standing tradition of providing high-quality footwear.

Goals

1. Adopt a centralized organization.

2. Maximize cash flow for inventory purchases.

3. Restore the company's quality reputation.

4. Use a more targeted marketing approach.

5. Reverse sales declines.

Programs, projects, and tasks related to these goals are listed in table 20A-3.5. (Only those programs, projects, and tasks related to goals 1 and 2 are presented for illustrative purposes. In actual engagements, practitioners would describe the program, projects, and tasks for all the goals.)

Table 20A-3.5
Plan Development and Implementation

Goal I. *Adopt a centralized organization.*

Program	*Project*	*Task*	*Responsibility*
A. Buy out Tom Burns.	1. Develop retirement plan for Tom Burns.	a. Consult with insurance broker.	Frank/Bill/Ed Burns
		b. Review options and finalize decision.	Frank/Bill/Ed Burns
	2. Negotiate buyout of Tom Burns.	a. Retain lawyer.	Frank Burns
		b. Meet to discuss options.	Frank/Bill/Ed Burns
		c. Develop plan.	Frank/Bill/Ed Burns
		d. Sign agreement.	Frank/Bill/Ed Burns
B. Realign the organization.	1. Reassign responsibilities.	a. Appoint Frank Burns CEO responsible for all company business and functions and buying authority.	Frank Burns
		b. Appoint Bill Burns vice president of operations responsible for day-to-day store operations.	Bill Burns
		c. Appoint Ed Burns vice president of the orthopedic service responsible for divesting this aspect of the business or developing a detailed three-month recovery plan.	Ed Burns
		d. Appoint Tom Burns as orthopedic consultant to the company.	Tom Burns

(continued)

Table 20A-3.5
Plan Development and Implementation (*continued*)

Program	Project	Task	Responsibility
	2. Consolidate three separate buying budgets into one budget under Frank Burn's control.	a. Review and discuss separate budgets with Ed and Bill Burns.	Frank Burns
		b. Learn about buying for unfamiliar areas of women's and children's shoes.	Frank Burns
	3. Reduce staff while maintaining productivity.	a. Eliminate three to four positions through layoffs.	Frank Burns
		b. Institute a six-day workweek for Frank, Bill, and Ed Burns.	Frank/Bill/Ed Burns
Goal II. *Maximize cash flow for inventory purchases.*			
A. Increase owners' contributions.	1. Defer all possible owner compensation.	a. Review owners' salaries and fringe benefits.	Frank/Bill/Ed Burns
		b. Determine each owner's living expenses.	
		c. Set up compensation system with allowance for expected inflation and future needs.	
	2. Infuse additional owners' capital into company.	a. Sell some socks and bonds.	Frank/Bill/Ed Burns
		b. Consider loans.	Frank/Bill/Ed Burns

B. Replace employee labor with owner labor.	See goal 1, program B, project 3		
C. Convert assets into cash.	1. Close two store locations (stores 5 and 6).	a. Conduct pre-Easter clearance sales at targeted stores.	Bill Burns
		b. Negotiate lease terminations.	Bill Burns
		c. Transfer unsold stock to remaining stores and/or hold a salvage sale.	Bill Burns
		d. Sell/salvage store fixture.	Bill Burns
	2. Sell downtown property.	a. Engage reputable realtor to secure sale/lease-back arrangement.	Frank Burns
		b. Decide on continuing or phasing out the orthopedic service.	Ed/Frank Burns
		c. If orthopedic service is to be discontinued, sell the existing equipment.	Ed Burns

Exhibit 20A-4

Sample Report for Vacationland Resort, Inc.

General Information

Charles C. Cook founded Vacationland Resort, Inc., on September 30, 19X0, when he acquired 14,500 acres in Hopsville, Pennsylvania. At its inception, Vacationland consisted of a nine-hole golf course and one ski slope. Recent rapid growth, a desire for further management development, and the need for continuity of ownership have led Vacationland Resort, Inc., to seek assistance in developing a long-range plan.

Key Personnel

President and general manager. Charles C. Cook owns 100 percent of Vacationland Resort, Inc. He is financially secure and does not depend on the cash generated by the business. His two sons, Sam and John, are involved in the business. Charles intends to retire soon and wants his son Sam to assume his duties.

Director of golf facilities. Sam Cook manages the golf facilities effectively. In recent years, he has developed a knowledge of golf, facilities layout, and grounds maintenance. He spends much of his time performing resident pro duties. Although his involvement in the general administration of the business has been limited, he expects to ultimately replace his father as general manager of the resort.

Director of ski facilities. John Cook manages the ski slopes and the equipment rental shop effectively. He is knowledgeable about modern ski slope maintenance, but he has no interest in the related facilities, such as the restaurant and bar. John Cook expects to continue in his present role with the company.

Lodge manager. Calvin Smith has held the position of lodge manager for two years and has performed his duties well; guests have commented favorably on the quality of lodge operations. Employed by the company since 19X1, Calvin Smith held several other positions before his promotion to lodge manager. With the company's backing, he has attended numerous educational courses related to hotel management.

The Facilities

Vacationland Resort, Inc., has expanded significantly since its inception. Its current facilities consist of—

1. An eighteen-hole, championship-class golf course with a clubhouse that includes a cart rental operation, pro shop, restaurant, and locker room.

2. A 375-room, two-story, chalet-style lodge with meeting rooms, restaurant and bar, game room, snack bar, craft shop, and four spaces that are leased for commercial use.

3. Three 1,200-foot ski slopes, twenty ski trails, three ski lifts, and facilities that include a restaurant, bar, equipment rental shop, pro shop, and locker room.

4. An outdoor ice-skating rink, an indoor swimming pool, tennis courts and a bicycle rental operation. The swimming pool, provided free to lodge guests, is well utilized. It is available to others for a small fee.

Facilities Utilization

Underutilization of the facilities is the major obstacle to the potential financial success of Vacationland Resort, Inc. Weather is an important but uncontrollable element in facilities utilization. Tables 20A-4.1 and 20A-4.2 provide data on the utilization of the lodge and ski lifts.

Table 20A-4.1
Lodge Occupancy at Vacationland Resort

Month	*Year*	*Rooms Occupied Daily*	*Percent of Total (365 rooms)*
May	19X3	60	16
June	19X3	180	48
July	19X3	184	49
August	19X3	185	49
September	19X3	170	45
October	19X3	45	12
November	19X3	35	9
December	19X3	160	42
January	19X4	355	95
February	19X4	359	96
March	19X4	310	83
April	19X4	125	33

Ski-lift ticket sales are the best measure of ski slope utilization. Ski-lift ticket sales for the past three ski seasons are shown in table 20A-4.2 The total ski-lift ticket sales for the 19X2-X3 ski season do not reflect growth, because warmer-than-average temperatures and significant rainfall, which caused poor skiing conditions, dominated that ski season.

Financial Operations

Vacationland Resort, Inc., has had moderate financial success since its inception. However, the poor weather of the 19X2-X3 ski season caused significant losses during that year. The company depends on a successful ski season to generate cash flow that compensates for off-season losses. Table 20A-4.3 summarizes recent financial information.

Table 20A-4.2
Ski-Lift Ticket Sales at Vacationland Resort

Type	*19X1-19X2*	*19X2-19X3*	*19X3-19X4*
Daily lift tickets			
December	11,000	13,000	16,000
January	38,000	42,000	48,000
February	32,000	24,000	47,000
March	26,000	21,000	49,000
April	9,000	11,000	14,000
Total	116,000	111,000	174,000
Season passes	516	712	910

Table 20A-4.3
19X3-19X4 Ski Season Financial Information

	Swimming Pool	*Lodge and Restaurant*	*Ski Slopes and Lifts*
Sales	$2,400	$420,000	$1,910,000
Expenses			
Salaries and wages	12,400	115,000	340,000
Supplies	3,800	240,000	84,000
Repairs and maintenance	2,100	11,000	63,000
Utilities	1,400	18,000	320,000
Other	400	12,000	116,000
	20,100	396,000	923,000
Revenue	$(17,700)	$24,000	$987,000

Marketing and Advertising

Vacationland Resort, Inc., uses ABC Advertising, Inc., for marketing and advertising services. Charles C. Cook is the company's liaison with the advertising agency, but no individual within the company is responsible for overseeing this function.

Most sales promotions have been directed to the mass media. However, the company is very interested in other forms of promotion, especially those that could increase off-season business.

Mission Statement

Vacationland Resort, Inc., was founded and developed to provide its owner with a better-than-average appreciation on his investment. Additional benefits have also resulted.

Benefits for the Owner and His Family

1. Vacationland Resort offers a family experience in the management and operation of a resort complex.

2. It provides an atmosphere conducive to making business contacts and entertaining them and their associates.

3. It can serve as a reasonable retirement location.

Benefits for Others

1. Vacationland Resort offers patrons high-quality facilities with as many recreational activities as feasible.

2. It offers employees a secure source of income and pleasant working conditions.

3. It enhances both business and the environment for the surrounding community.

Goals

1. Advance Sam Cook into general management.

2. Improve and coordinate the management function.

3. Develop an ongoing marketing program with emphasis on increasing off-season utilization of facilities.

4. Construct and begin operating a fourth ski lift by the 19X5-X6 ski season.

5. Develop and implement an accounting and financial-reporting system to evaluate operations.

For illustrative purposes, the programs, projects, and tasks related to goals 1 and 2 are provided in table 20A-4.4.

Table 20A-4.4
Plan Development and Implementation

Goal I. *Advance Sam Cook into general management.*

Program	*Project*	*Task*	*Responsibility*
A. Recruit a golf professional to assume Sam Cook's responsibilities by January 1, 19X5.	1. Screen eligible candidates and make a selection.	a. Prepare advertisements for the media by June 30, 19X4.	Sam Cook
		b. Interview candidates and arrange for a tour of the facilities.	Sam Cook
		c. Hire a new golf pro by August 15, 19X4.	Charles/Sam Cook
		d. Assist the new pro in relocating.	Sam Cook
	2. Develop an orientation and training program for the new pro.	a. Establish dates to begin the orientation training program.	Sam Cook
B. Promote Sam Cook to assistant general manager by January 1, 19X5.	1. Develop a schedule for implementing Sam Cook's promotion.	a. Announce Sam Cook's promotion by September, 19X4.	Charles Cook
		b. Establish an executive office for Sam Cook in the lodge by December 31, 19X4.	Charles Cook
		c. Develop and implement a management training program for Sam Cook by December 31, 19X4.	Charles Cook
		d. Transfer reporting of all operating units to Sam Cook by May 1, 19X6.	Charles Cook

Goal II. *Improve and coordinate the management function.*

Program	*Project*	*Task*	*Responsibility*
A. Establish and fill new management and administrative positions.	1. Recruit a food services director, sales director, manager-controller, and personnel director by September 30, 19X5.	a. Prepare advertisements for the media by June 30, 19X4.	Charles Cook
		b. Interview candidates and arrange for a tour of the facilities.	Charles Cook
		c. Hire the best applicants.	Charles Cook
B. Establish a management-reporting function by June 19X5.	1. Organize regular staff meetings for all managers.	a. Schedule and conduct management staff meetings.	Sam Cook
C. Develop managers' financial and operations skills.	1. Establish an educational training program by October 19X5 to develop managers' financial and operations skills.	a. Review all available local opportunities dealing with finances and operations, and list them for managers.	Sam Cook
		b. Schedule in-house seminars for managers.	Sam Cook

Exhibit 20A-5

Sample Report for Integrated Matrix Systems

General Information

Three former employees of Belrose Electronics founded Integrated Matrix Systems (IMS) to design, develop, produce, and market serial dot-matrix printers emphasizing high speed and high resolution. The founders incorporated the company on February 25, 19X2. Early product development and initial planning took place at the founders' homes. In May 19X2 the company moved into leased offices.

The Product

IMS's product is a dual-mode printer (dot-matrix and letter-quality) offering advanced features and versatility for the small business computer system. The printer provides high quality in a reliable, simple, low-cost design. The reliability and features offer customers both purchase price savings and overall reduced cost of ownership compared with other printers. More efficient electronics and intelligent software contribute to cost reduction.

Specifications and Features

The printer, designed for desktop use, measures 6.5 inches high, 24 inches wide, and 18 inches deep. It weighs less than 40 pounds. Its front panel houses all the controls and switches, providing the operator with a complete choice of print mode, font (typeface), paper size, formatting, and configuration. In the dot-matrix (draft) mode, the printer operates at a high speed of 250 characters per second (cps), and in the letter-quality mode it operates at up to 100 cps. The operator can also select the print mode from the host system.

The printer stores up to six different fonts. The standard printer offers pica 10 and elite 12 in draft and letter-quality modes as well as an auto-italics feature, which automatically italicizes the characters of any font in the letter-quality mode. In addition, the printer features high-resolution dot control graphics. Graphics can be intermixed with text on a line.

The document-feed module processes a single document without bending it. The printer's first-line, first-character indicator enables the user to position preprinted forms for accurate repeatable printing.

Applications and Compatibility

IMS designed the printer for use in data processing, word processing, and graphics applications. Compatible with a wide variety of host computer systems, the printer can be easily configured for foreign power requirements by the factory or a qualified technician. The printer is UL listed, CSA certified, and complies with FCC and VDE standards.

Future Offerings

Simplicity of design and high modularity contribute to a printer's high reliability and ease of service. IMS's first printer will serve as a base for a family of printers characterized by a high commonality of parts and manufacturing processes. Future enhancements and models will address specific markets for such products as the following:

Daisywheel adaptation. The standard printer can accommodate either a matrix mechanism, which it comes with, or a daisywheel, which can be interchanged with the matrix mechanism. With standard daisywheels (Qume, Diablo, or NEC), the printer can operate at up to 35 cps.

High-speed printer. IMS is planning a dot-matrix printer offering speeds up to 600 cps for data processing applications.

Document-feed module. Used to print unusual forms, such as ledger cards, the document feed module is compatible with the standard printer mechanism.

Four-color printer. The operator will automatically select colors from software control or the control panel.

KSR printer. Consisting of a keyboard, cable, and interface card, its standard features will include softkey functions, a numeric keypad, and flexible communications protocols.

Pen-plotting enhancement. The pen-plotter allows four-color X-Y plotting on various papers up to 18 inches wide.

FAX. The standard printer contains the facsimile interface, and it can coexist with standard printing operations.

Manufacturing

Since IMS is a new company with limited resources, its founders determined that subcontracting various functions would be the most beneficial approach. Outside consultants and contractors specializing in specific areas of product design and development contribute to the end products. This concept evolved from an analysis of three key factors in product development: expenses, timeliness, and personnel.

The following firms perform services for IMS:

1. A research and development company develops computer software and hardware.

2. A computer consulting company determines electronic configurations.

3. An industrial designer develops printer designs.

4. A manufacturer furnishes engineering services and prototype power supplies.

5. A precision sheet metal shop provides the necessary sheet metal components.

IMS provides its own facility and staff for final assembly and test operations. Such a strategy assures company control over quality and prevents creating a competitor. It also conserves cash and minimizes capital requirements.

Key Personnel

President/chief executive officer. John L. Hoffman served as a consultant to IMS before assuming his current position as president and CEO. He has ten years of experience with electronics and computer firms and has supervised the design, manufacture, and marketing of office products, including a number of printers.

Engineering vice president. Richard S. Williams, a founder of IMS, supervises engineering management, outside product design and development, and product planning. He is particularly attuned to the need for user-friendliness, the benefits of mechanical simplicity, and the suitability of printer design for the office environment. His six years of experience include executive responsibility for designing and developing serial dot-matrix printers for the commercial market.

Sales vice president. James P. Grant, a founder of IMS, oversees sales management and market development. Knowledgeable about the current state of distribution, he maintains a dialogue on industry trends with reps and distributors around the country. He sees a major opportunity for creative distribution that will support the reseller and the end-user. Because of his diverse background, he is familiar with national and international segments of the computer industry.

Marketing vice president. Robert G. Phalen, a founder of IMS, is in charge of marketing administration and implementation, market planning, corporate communications, and customer service. With a sensitivity to the needs of small, growing businesses, he provides the technical link between customers, marketing, and engineering. He possesses a thorough knowledge and understanding of the computer printer market, particularly dual-mode dot-matrix printers, because of his previous experience in managing electronics firms.

Senior software engineer. Peter F. Davidson supervises software design and development and assists with electronics design. He has more than six years of experience in printer and peripheral control software, which he designs for high intelligence and flexibility. His programming skills are enhanced by the clarity of his technical writing and his skill in dealing with customers.

Finances

A combination of founders' stock purchases and venture capital financing provided the initial funding for IMS. Additional funding was needed in fiscal year 19X3-X4 for inventory and production, tooling, and start-up of sales and marketing.

Sales have increased steadily since shipment of the first printer began in late 19X3. The company began realizing a profit in fiscal year 19X4-X5, which was the first full year of product sales. Management expects sales and profits to continue to rise. Table 20A-5.1 shows a five-year income statement with actual and projected figures.

Table 20A-5.1
Five-Year Income Statement

	Actual			Projected	
	19X3-19X4	*19X4-19X5*	*19X5-19X6*	*19X6-19X7*	*19X7-19X8*
Gross revenues	$675,790	$12,452,086	$28,028,279	$46,245,142	$76,368,000
Less returns and allowances	3,379	62,260	140,141	231,226	381,840
Net revenues	672,411	12,389,826	27,888,138	46,013,916	75,986,160
Cost of sales					
Product at standard	221,695	5,281,609	12,517,207	21,736,207	37,754,000
Production variances	351,985	2,285,890	3,564,125	3,614,449	1,806,000
Overhead (unabsorbed)	749,773	304,043	152,214	(1,524,507)	(1,900,669)
Warranty reserve	5,737	75,675	160,813	253,507	395,600
Bad-debt reserve	6,724	123,898	278,881	460,139	759,862
Total cost of sales	1,355,914	8,071,115	16,673,240	24,539,795	38,814,793
Gross profit (loss)	(663,503)	4,318,711	11,214,898	21,474,121	37,171,367
Percentage of revenue	--	.35	.40	.47	.49
Operating expenses					
Engineering	738,000	900,360	1,080,432	1,404,562	1,825,930
Marketing	454,030	567,538	737,799	996,028	1,294,837
Sales	430,592	1,283,695	1,931,044	3,723,416	5,506,572
General and administrative	694,717	764,189	917,026	1,192,134	1,549,775
Total operating expenses	2,317,339	3,515,782	4,666,301	7,316,140	10,177,114
Operating profit (loss)	(2,980,842)	802,929	6,548,597	14,157,981	26,994,253
Nonoperating expenses					
Royalties	33,621	619,491	1,394,407	2,300,696	0
Total nonoperating expenses	33,621	619,491	1,394,407	2,300,696	0
Pretax profit (loss)	(3,014,463)	183,438	5,154,197	11,857,285	26,994,253
Percentage of revenue	--	.01	.18	26	.36
Federal tax (46%)	--	--	1,068,655	5,454,351	12,417,357
State tax (10%)	--	--	232,316	2,285,729	2,699,425
After-tax profit (loss)	$ (3,014,463)	$183,438	$ 3,853,226	$ 5,217,205	$ 11,877,471
Percentage of revenue	--	.01	.14	.11	.16

Marketing

The marketing department uses advertising, public relations, and trade shows to establish a strong image for the company and its products. The functions are coordinated to maximize exposure. In addition to an in-house marketing staff, IMS also retains an outside advertising agency.

The sales department contributes to the marketing effort by targeting the company's major prospects: Fortune 500 companies, the banking and insurance industries, educational and health institutions, and government. The sales department has recruited manufacturers' representatives to act as IMS's national sales force in the field and to support end-users.

Mission Statement

The founders of IMS want to achieve and maintain a position of recognized leadership in the high-performance commercial printer marketplace by developing a family of highly reliable and innovative products.

Benefits

IMS provides its founders and staff with lucrative employment, investment opportunities, and a challenging work environment. It offers its customers and suppliers a quality product at a highly competitive price. It contributes to the community, too, by expanding the job market and the tax base.

Goals

1. Increase sales through advertising and promotion.

2. Establish a base for international sales.

3. Develop a high-speed printer.

4. Establish a system to review job performance.

For illustrative purposes, goals 1 and 2, with their respective programs, projects, and tasks, are provided in table 20A-5.2.

Table 20A-5.2
Plan Development and Implementation

Goal I. *Increase sales through advertising and promotion.*

Program	*Project*	*Task*	*Responsibility*
A. Support sales-service team with a product package of literature and sales aids.	1. Produce four-color brochures, data sheets, print samples, price lists, sales manuals, and counter racks.	a. Meet with ad agency to discuss ideas.	Robert G. Phalen
		b. Review ad agency's design.	Robert G. Phalen
		c. Chose final designs and produce them in quantity.	Robert G. Phalen
	2. Distribute product package.	a. Contact sales reps authorized dealers.	James P. Grant
		b. When transmitting materials, instruct reps and dealers about their best use.	James P. Grant
B. Attend computer trade shows.	1. Determine which national and regional shows to attend.	a. Prepare list of shows.	James P. Grant
		b. Contact shows' sponsors to obtain literature.	James P. Grant
		c. Talk with other vendors and buyers about shows.	James P. Grant
		d. Make final selections, reserve floor space, and book hotel rooms and airline seats.	James P. Grant
	2. Choose employees to attend shows.	a. Determine which employees are interested in attending shows.	James P. Grant
		b. Review employees' qualifications and experience.	James P. Grant
		c. Choose employees who will attend.	James P. Grant

(continued)

Table 20A-5.2
Plan Development and Implementation (*continued*)

Program	*Project*	*Task*	*Responsibility*
		d. Review show presentations with employees.	James P. Grant
C. Utilize print media.	1. Produce and distribute news release.	a. Determine frequency of news releases.	Robert G. Phalen
		b. Review topics for suitability—importance, timeliness.	Robert G. Phalen
		c. Choose appropriate topics and write releases.	Robert G. Phalen
		d. Send releases to media contacts.	Robert G. Phalen
	2. Place ads in technical publications.	a. Develop ads in conjunction with ad agency.	Robert G. Phalen
		b. Review agency's presentation.	Robert G. Phalen
		c. Choose which ads to run.	Robert G. Phalen
		d. Choose publications based on marketing data and finalize arrangements.	Robert G. Phalen/James Grant
A. Contact international distributors.	1. Meet with international distributors at National (U.S.) Computer Conference.	a. Determine which international distributors will attend the conference.	James P. Grant
		b. Communicate with distributors before conference to arrange meetings at conference.	James P. Grant
		c. Hold meetings.	James P. Grant

Goal II. *Establish a base for international sales.*

Program	*Project*	*Task*	*Responsibility*
	2. Review international network concept with distributors.	a. Provide distributors with literature and answer their questions.	James P. Grant
B. Set up international network of IMS distributors.	1. Contract with each distributor in the international network.	a. Negotiate terms of the contract.	Legal counsel
		b. Draw up contract.	Legal counsel
		c. Finalize contract.	Legal counsel
	2. Train distributors.	a. Choose instructors.	James P. Grant
		b. Choose sites and dates for training sessions.	James P. Grant
		c. Conduct sessions.	Instructors
		d. Review effectiveness of training.	James P. Grant

APPENDIX 20/B

ILLUSTRATIVE ABBREVIATED PLANNING SESSIONS

One way for the practitioner to acquaint the small business client with the benefits of long-range planning is to conduct a one- or two-day planning session. This approach is intended for clients who wish planning assistance but not an engagement of traditional scope and duration. It is suitable when the practitioner has prior knowledge of the client's operations and organization.

The abbreviated planning session generally follows the pattern of more extensive planning engagements, but the planning process and results are less encompassing. Time is devoted to fact-finding, identifying strengths and weaknesses, developing goals, and establishing programs, projects, and tasks. A report summarizing the plan is prepared for reference and follow-up.

A number of decisions need to be made before the abbreviated planning session begins. They include the following:

Participants. With the practitioner's assistance, the client carefully decides who will attend the session. Although a small group may be easier to manage, all client personnel directly involved with implementing the plan and programs may be included. The client and the practitioner may also request that certain personnel attend the planning session to provide input on technical matters.

Agenda. The practitioner and the client select topics for discussion or identify topics likely to be discussed to determine who will attend and how much advance data gathering will be necessary. Some planning sessions are limited to specific projects.

Advance data gathering. It is often beneficial to gather and prepare certain materials in advance of the session. As described earlier, relevant data relate to attitudes, individual goals, suggestions, and other information required for the agenda.

Duration. The time required to effectively address the client's planning needs will be determined by the session's participants, anticipated discussion topics, and the data gathered in advance. Failure to allow adequate time or the inappropriate use of time may jeopardize the success of the planning session.

Location. The abbreviated planning session is best conducted in a setting with minimal interruption. When a session lasts for two or more days, it may be held at a location offering recreation and entertainment. Since a planning session requires participants to be mentally alert, recreation or other forms of relaxation can be an asset.

During the abbreviated planning session, the practitioner acts as a discussion moderator whose primary objective is to move the discussion toward developing the client's long-range plan. However, the practitioner's experience allows for significant contributions as well.

The format of abbreviated planning sessions may vary, depending on the participants and their understanding of the discussion topics. The practitioner guides the discussions to fit the circumstances whenever necessary. The progress of the planning session can be enhanced with the use of charts and other aids. Such aids can be collected at the conclusion of the session and used to prepare a written report or summary.

The results of an abbreviated planning session can include—

- A new or revised mission statement.
- Goals and the programs to achieve them, including timetables and responsibilities of the client's staff.
- Increased client awareness of the planning process and its potential benefits.
- Increased motivation of the client's staff.
- A desire by the client to institute annual planning sessions so that goals, programs, projects, and tasks can be regularly revised.
- A client request for the practitioner's assistance in developing a more formal, extensive plan.
- Follow-up engagements as a result of increased client confidence in the practitioner and the client's newly identified consulting services needs.
- Greater practitioner understanding of the client's operations.

The practitioner's report on an abbreviated planning session may take several forms. The simplest form would be minutes of the session, with no further analysis or follow-up. However, the client may wish the practitioner to perform additional analysis work and draft a more formal plan.

The two case studies of abbreviated planning engagements in this appendix (exhibit 20B-2 and exhibit 20B-3) illustrate plans and goals that can be developed during a one-day session. The case studies assume that the practitioner has previously provided services to the client and already understands the client's organization and operations.

Exhibit 20B-1

Sample Engagement Letter—Planning Session

CPA & Company
Newton, USA

July 15, 19X5

Mr. William White, President
Cabletown Industries, Inc.
Cabletown, USA

Dear Mr. White:

This letter confirms our understanding of the services we will perform for Cabletown Industries, Inc. We will conduct a planning session on October 12, 19X5, to be held at our office in Fairview. The following representatives of Cabletown are scheduled to attend:

- William White, president
- Joseph Gordon, controller
- Carrie Simmons, marketing director
- Harold Blake, production manager

Although we have gained knowledge of your organization and operations through previous engagements, we request that you provide us with certain additional information so that we can better prepare for the meeting. We need the following information:

1. An organizational chart
2. A list of personnel
3. Financial statements for the last three years
4. Product sales by division for the last two years

We will perform the function of informed moderator at the planning session and will contribute to the discussions as appropriate. The benefits derived from the planning session, including possible recommendations, depend on the activities of the participants and your follow-up efforts. To aid your follow-up, we will prepare minutes of the session, which can be used in developing a plan to implement adopted recommendations.

If this letter accurately describes your understanding of the services we are to perform for Cabletown Industries, Inc., please sign and date it and the enclosed copy, and return the copy to us.

Sincerely,

David Jenkins, CPA
Partner
CPA & Company

Accepted by William White   Date
Cabletown Industries

Exhibit 20B-2

Case Study: Planning Session for Electro Battery Company

In February 19X6, the owners of the Electro Battery Company of Chicago—Alan Jones, Peter Jones, and Nancy Jones—requested their CPA, Joe Greer, to assist them in long-range planning. Together they arranged a one-day planning session at a nearby hotel and agreed on the following agenda:

1. Description of the business

2. Analysis of the competition

3. Current status

4. Significant problems

5. Goals

6. Programs, projects, and tasks

Description of the Business

The Electro Battery Company is engaged in the wholesale and retail sale of batteries, both directly and through distributors. It has manufacturing and warehousing facilities in Chicago and a warehouse in Skokie.

Each area of Electro Battery Company that contributes to revenue will be analyzed in relation to certain criteria for success. The revenue-contributing areas and the success criteria for each follow. A parenthetical notation accompanies requirements the company is working toward but has not achieved.

Revenue-Contributing Areas

Wholesale Battery Distribution, 84 Percent of Revenue

1. Continuing customer satisfaction with the company and its distributors

2. Good service

3. A high-quality product

4. An effective sales force whose members have the following qualifications:

    - Appropriate appearance and personality, including promptness and courtesy

- Knowledge of and belief in the product
- Ability to deal with people
- A good attendance record at sales meetings
- Regularly scheduled routes

5. Adequate inventory levels for the company and its distributors
6. Reliable supplies and secondary sources
7. Regular expansion of the customer base
8. Effective management through a management-reporting system

Retail Sales, 10 Percent of Revenue

1. Continuing customer satisfaction
2. Good service
3. A high-quality product
4. Knowledgeable warehouse employees
5. Good communication with customers, including customer service
6. Employees with outgoing personalities
7. Effective advertising
   - Advertising directed at the Chicago area and its suburbs
   - Emphasis on the product's quality
   - Location signs
8. Retail stores with the following attributes:
   - Attractive appearance
   - Easy accessibility
   - Adequate parking

9. Competitive wholesale prices

Industrial Sales, 3 Percent of Revenue

1. Competitive price and service
2. Gross profit that justifies the expense of a sales force
3. An effective sales force whose members have the following qualifications:
    - Knowledge of industry requirements
    - Knowledge of the competition
    - A good attendance record at training programs
    - Motivation to increase sales and expand the customer base
4. Adequate service staff (Increase present staff.)
5. Effective management reporting for the industrial department (Improve current management reporting.)
6. Advertising in industry trade journals
7. A prospects list (Develop a prospects list.)
8. Sales forecasts to ensure adequate inventories
9. Provisions for consigned inventory and for loan batteries when service is needed
10. Additional equipment, including a testing truck (Purchase equipment.)

Service and Repair, 3 Percent of Revenue

1. Certification as an authorized repair service center with listings in trade publications (Obtain certification.)
2. Advertisements that emphasize the authorized repair service (Place advertisements after obtaining certification.)
3. A complete supply of parts

4. A training program to provide employees and technicians with knowledge of the products (Establish a training program.)

5. New service locations in the Chicago area (Add more locations.)

Analysis of the Competition

Local: Chicago area--Sharp Battery Co.
Regional: Indiana--Indiana Battery Co.
Michigan--B & B Battery
Wisconsin--Volt Electric

Major discount department stores also compete at both the local and regional levels.

Electro Battery's competitive advantages are volume purchases, high-quality sales personnel, a large inventory, and an established company name. The competition has the advantages of more effective promotion and advertising and lower overhead costs.

Current Status

Table 20B-2.1 outlines certain financial data of the Electro Battery Company.

Table 20B-2.1
Financial Data for Electro Battery Company

	19XX	*19XY*	*19XZ*
Sales	$3,603,076	$4,248,128	$4,954,495
Gross profit	25.72%	25.25%	25.58%
Net profit	1.59%	3.85%	2.95%
Return on investment	10.00%	25.00%	25.00%
Inventory turns	6.90	8.00	7.10
Ratio of sales to total assets	3.00	4.00	4.10

Significant Problems

1. High employee turnover, including a number of key salespeople who have retired or plan to retire shortly

2. Accessibility (The Highway Department currently plans to change the right-of-way in front of the Skokie warehouse, which would make access extremely difficult.)

3. Lack of management information

4. Supplier quality control

5. Accounts receivable collection

Goals

Sales Goals

1. Increase total sales by $1 million.
2. Increase unit sales by 10 percent.
3. Increase gross profit and net profit by 1 percent.

General Goals

1. Provide adequate warehouse facilities.
2. Improve management reporting.
3. Initiate an industrial sales division.
4. Improve employee morale.

Programs, Projects, and Tasks

Program 1: *Solve Skokie warehouse problem.* (Alan Jones)

Project: Relocate Skokie warehouse.

Tasks:

1. Contact a commercial realtor.
2. Define building requirements:
   Size
   Geographic area
   Facilities, bays, storage, and offices:
   Design requirements
   Price
   Financing
3. Select a new warehouse and transfer merchandise and personnel to it.
4. Sell old warehouse.

Program 2: *Evaluate current management reporting.* (Alan Jones)

Project: Determine whether a computer could improve management reporting.

Tasks: 1. Review available software.

2. Calculate financing for the computer.

3. Modify the accounting system for departmental breakdowns.

Program 3: *Evaluate and improve the gross profit.* (Nancy Jones)

Project: Increase the gross profit from sales.

Tasks: 1. Review current buying and selling procedures.

2. Organize and conduct a sales training session.

3. Establish an inventory control system.

4. Start a cost-and-expense control program.

Program 4: *Establish an industrial sales division.* (Alan Jones and Peter Jones)

Project: Develop an industrial sales division organization. (Peter Jones)

Tasks: 1. Hire a salesperson.

2. Train divisional personnel.

3. Negotiate contracts for consigned inventory.

4. Contact prospective customers.

5. Determine and assign space for industrial sales at all locations.

6. Determine and acquire the equipment needed for industrial sales.

Program 5: *Establish the means to improve employee morale.* (Nancy Jones)

Project: Develop an employee motivation program.

Tasks: 1. Institute an annual review program.

2. Review the base pay plan now in effect, and adjust it as necessary.

3. Initiate an incentive pay plan.

4. Offer training that can lead to advancement or salary increases for employees at all levels.

5. Offer participation in related educational courses in the community.

Exhibit 20B-3

Case Study: Planning Session for Outdoor World

In September 19X5, Tom Smith, the president of Outdoor World, requested the company's CPA, John Brown, to assist in long-range planning. John Brown arranged for Tom Smith and several key Outdoor World employees to participate in a one-day planning session at a hotel located a few miles from Outdoor World's executive offices.

Beforehand, Tom Smith and John Brown agreed on the following agenda for the one-day planning session:

1. Description of the business
2. Analysis of the competition
3. Current status and problems
4. Goals
5. Programs, projects, and tasks

Description of the Business

Outdoor World can be divided into six components related to recreational vehicle equipment:

1. Mail-order sales
2. Direct sales to consumers through retail outlets
3. Wholesale trade to other dealers
4. Mailing list sales
5. Installation
6. Service

Analysis of the Competition

Basically, two companies are Outdoor World's local competition. One is a wholesaler that expanded into catalog sales. The other started in retail sales and then moved into wholesaling. The latter is Outdoor World's chief competitor; it has a sales volume of $10 million to $12 million, divided evenly between retail and wholesale merchandise. In addition to these two companies, local recreational vehicle dealers sell accessories through retail outlets and catalog sales.

National competition comes from large catalog-sales businesses that sell recreational vehicle equipment in addition to general merchandise.

Current Status and Problems

Status

1. Annual sales volume of $6 million, representing .5 percent of the total national market

2. Two warehouse and office locations: New York City and Newark

3. Total of fifty-five personnel

Problems

1. Operational data is not consolidated.

2. Financial reports are not timely.

3. The work flow currently goes through one person, the president, or, in his absence, the executive vice president.

4. Both the financial and correspondence areas have a backlog of work.

5. All orders are processed by an outside service bureau. This makes the company vulnerable if the service bureau ceases to process the orders.

6. Management would like to spend more time analyzing the Newark operation because presently no advance-warning system exists to indicate potential problems at that location.

7. The New York City location is approaching maximum capacity in the mail-order department.

8. Management is resistant to change.

9. Future expansion plans will require a large capital investment. The source of financing has not been identified.

Goals

1. Run an efficient, financially secure operation that satisfies both employees and customers.

2. Establish other locations, including a California operation, to gain the dominant position in the industry.

3. As a dominant factor in the industry, become the principal customer of the suppliers and thus obtain the best prices.

4. Provide advancement opportunities for personnel through expansion.

Programs, Projects, and Tasks

Participants at the Outdoor World one-day planning session reviewed the goals. John Brown, CPA, assisted by focusing attention on the goals that would affect and most likely improve Outdoor World's competitive status and operations. The participants developed the following programs, projects, and tasks.

Program 1: *Open a California location.*

Project: Finalize land and construction plans.

Task: Begin construction.

Program 2: *Correct organizational deficiencies.*

Project 1: Review operations and restructure as needed.

Tasks:

1. Create the position of vice president of operations. The vice president will oversee the operation of current locations in the absence of the president.

2. Hire an accountant to support the Newark branch manager.

3. Reduce the backlog and improve the timeliness of accounting reports.

4. Begin consolidating operational data so that management has firmwide information and a suitable reporting system.

5. Develop and implement inventory and financial control systems.

Project 2: Consider alternatives to order processing by the service bureau.

Tasks:

1. Initiate a systems review.

2. Develop and implement a long-range systems plan.

Program 3: *Develop alternatives to borrowing on receivables.*

Project: Establish cash flow control procedures.

Task: Develop and implement a budgetary process.

Program 4: *Reduce purchasing costs.*

Project 1: Establish a purchasing control system.

Tasks:

1. Institute sales forecasting.
2. Develop and implement an inventory control system.

Project 2: Establish customer return policies.

Tasks:

1. Analyze merchandise returns by cause.
2. Compile a return procedures manual.
3. Familiarize employees with procedures.

Program 5: *Maximize human resources.*

Project: Review current employee training.

Task: Develop and implement a thirty-day employee training program.

APPENDIX 20/C

ILLUSTRATIVE BUSINESS PLANNING OUTLINES AND CHECKLISTS

Exhibit 20C-1

Sample Agenda for a Planning Meeting

Agenda and Introduction

1. Purpose of planning retreat
   a. Agenda
   b. Program work plan
   c. Administrative items

Planning Process

2. Overview of long-range planning
   a. Purposes of formal long-range planning
   b. Benefits of planning
   c. Limitations of planning
   d. Categories of general information useful in planning
   e. Analysis of risks and opportunities
   f. Structures of long-range planning

Review of Current Year's Performance

3. Results of planning retreat preparations
   a. Summary of issues, ideas, and problems that surfaced during the management interview process.
   b. Conclusions of operational evaluation
   c. Phases of growth

4. Present year's successes

5. Present year's failures

6. Current strengths and weaknesses

7. Current capabilities as affected by
   a. Personnel
   b. Customers
   c. Products or services
   d. Economy
   e. Facilities
   f. Equipment
   g. Competition

8. Forces affecting performance
   a. Production
   b. Sales
   c. Profits
   d. Responsiveness
   e. Employee effort

9. Reasons for profit performance, return on investment, and return on assets

Review of Company's History and Statistics

10. Trends and statistics of previous four years
    a. Balance sheet
    b. Statement of earnings
    c. Wages
    d. Business ratios (e.g., financial, operational, efficiency, profitability)

11. Customer rankings

Future Expectations

12. External changes having a major effect on the company, including changes in
    a. Economy
    b. Employees
    c. Shareholders
    d. Customers

13. Industry changes having a major effect on the company
    a. Competition
    b. Products
    c. Markets
    d. Technological development and changes
    e. Changing nature of operations

14. 5- and 10-year goals in
    a. Sales volume
    b. Number of locations
    c. Management skills and responsibilities
    d. Overall company structure and operations

Growth Strategy

15. Growth accomplishments for current year

16. Current and future growth strategies
    a. Products
    b. Customers
    c. Employees
    d. Equipment
    e. Competition
    f. Location

Company Values and Mission

17. Product or service differentiation
    a. Market segmentation and targeting
    b. Quality and competitive edge

18. Financial ratios (as related to company's growth strategy)

19. Responsibility to interest groups
    a. Employees
    b. Customers
    c. Suppliers
    d. Owners

20. Management philosophy

21. Additional management concerns, uncertainties, or unresolved issues

22. Relative priorities among competing goals

23. Evaluation of present organization structure
    a. Strengths
    b. Weaknesses

24. Individual responsibilities in future organization structure

25. Annual employee performance reviews

Customers, Marketing, and Sales

26. Customer service and retention
    a. Standards for acceptable customer service
    b. Recent customer service performance
    c. Criteria for seeking customers
    d. Criteria for retaining customers

27. Performance of present marketing and sales programs
    a. Necessary changes
    b. Additional programs

28. Future marketing strategy

Personnel Growth and Motivation

29. Hiring, training and continuing education

Long-Range Planning

30. Statement of goals

31. Plans
    a. Sales
    b. Marketing
    c. Production
    d. Human resources
    e. Organization
    f. Finance
    g. Control

33. Budgets

Exhibit 20C-2

Sample Outline of a Business Plan

I. Cover Sheet (name of company, address, principals)

II. Table of Contents

III. Executive Summary (2-3 pages)

IV. The Business

A. Description, history (including past performance)
   1. Form of business (if incorporated, show where)
   2. Location of headquarters
   3. Principals or owners

B. Objectives of owners or managers
   1. Projections and forecasts
   2. Current and proposed capital structure

C. Funding required
   1. Equity
   2. Debt

D. Timing and use of funds
   1. When capital needed
   2. How funds will be used

V. The Product or Service

A. Description of brand names, prices

B. Comparison with competitive products or service (e.g., competitive advantages, weaknesses)

C. Research and development

D. Patents, trademarks, copyrights, franchises, and licensing agreements

VI. Marketing Plan

A. Overall strategy and tactics including risks and pitfalls

B. Size and history of market including trends (growth vs.flat)

C. Profiles of customers and end-users; preferences and needs

D. Strengths and weaknesses of competitors

E. Product lines

F. Advertising and promotions

G. Pricing

H. Distribution channels: distributors, dealers, sales representatives, associations, cooperatives

I. Regulatory requirements

VII. Production and Operations

A. Description of operations (all facets from raw materials to finished product)
   1. Workforce (management, rank, and file)
   2. Principal suppliers

B. Facilities and equipment
   1. Existing
   2. Required

C. Material, labor, and supplies used

VIII. Financial Information

A. For existing companies, provide a summary of historical financial data

B. Projected financial statements for three to five years
   1. Cash flow statements
   2. Income statements
   3. Balance sheets

C. Significant financial assumptions (interest rates, profit margins, etc.).

D. Accounting policies (depreciation, inventory valuation, receivables, collections, etc.)

E. Break-even analysis

IX. Supporting Documents

A. Management biographies or resumes

B. Organizational chart

C. Historical financial statements for past three to five years

D. Employment contracts or agreements and loan covenants

E. Articles of incorporation

F. By-laws

Exhibit 20C-3

Business Planning Engagement Control Form

	Date Activity Assigned	Date Activity Completed	Person Responsible
I. Develop the idea of business planning with the client.			
A. Send a letter of recommendation, with comments.	______	______	____________
B. Conduct general, informal discussions with the client decision maker.	______	______	____________
C. Report on observations and apparent needs.	______	______	____________
II. Reach an understanding about the proposed business planning project with the client.			
A. Send a letter to the client, describing the process, benefits, and limitations.	______	______	____________
B. Hold a management meeting to review the letter.	______	______	____________
C. Reach an agreement between the practitioner and the client to proceed with the project.	______	______	____________
III. Plan the Business Planning Project.			
A. Prepare the work plan.	______	______	____________
B. Send an engagement letter.	______	______	____________
C. Organize the working papers.	______	______	____________
D. Identify and develop generic and unique (to the project) business planning tools.	______	______	____________

	Date Activity Assigned	*Date Activity Completed*	*Person Responsible*
IV. Gather and analyze initial data for the planning retreat.			
A. Prepare interview guides.	______	______	____________
B. Conduct interviews.	______	______	____________
C. Identify and collect historical information.	______	______	____________
D. Develop a retreat agenda and determine necessary materials.	______	______	____________
E. Select a location and date.	______	______	____________
F. Prepare a planning manual for all retreat participants.	______	______	____________
G. Assign the analysis of special projects completed in time for the retreat:			
• Employee opinion survey	______	______	____________
• Customer attitude survey	______	______	____________
• Middle management survey	______	______	____________
V. Conduct the planning retreat.			
A. Complete the planning manual.	______	______	____________
B. Finalize the retreat agenda.	______	______	____________
C. Coordinate the retreat.	______	______	____________

		Date Activity Assigned	Date Activity Completed	Person Responsible
VI.	Summarize the results of the planning retreat and establish an action plan.			
	A. Update the planning manual.	______	______	____________
	B. Record and distribute the retreat minutes.	______	______	____________
	C. Assign any special tasks.	______	______	____________
	D. Develop and implement an action plan.	______	______	____________
	E. Develop a business planning document.	______	______	____________
VII.	Prepare prospective financial statements.	______	______	____________
VIII.	Monitor the project to assure continuous and correct information and to determine when future revisions are required.	______	______	____________

Exhibit 20C-4

Business Planning Questionnaire

Organization

1. Does the organization have an established planning group?
Yes ☐ No ☐
Explanation:____

2. To whom does the planning group report?__________________________

3. How does the group interact with functional areas within the organization?__________

4. Is there a regular planning cycle?
Yes ☐ No ☐
Explanation:____

Objectives

5. What are the company's short- and long-term objectives?
Short-term:____

Long-term:____

6. How were these objectives determined? ______________________________

7. Is planning in the company typically a top-down or a bottom-down process? ______________________________

8. Are the company's objectives understood by owners, managers, and other key people?
Yes ☐ No ☐
Explanation: ______________________________

9. Are the company's objectives supported by owners, managers, and other key people, either informally or formally (e.g., in individual management-by-objectives programs?)
Yes ☐ No ☐
Explanation: ______________________________

10. Are the objectives reasonable? Challenging? Measurable?
Yes ☐ No ☐
Explanation: ______________________________

11. Have plans and programs been developed to meet these objectives?
Yes ☐ No ☐
Explanation: ______________________________

12. Have sales volume and profit requirements been established for the next five years?
Yes ☐ No ☐
Explanation: ______________________________

13. Has a financial plan (including capital requirements) been prepared for the next five years?
Yes ☐ No ☐
Explanation:____
____
____

14. Have the company's plans been put in writing?
Yes ☐ No ☐
Explanation:____
____
____

15. Does the company have any short-term plans for physical expansion?
Yes ☐ No ☐
Explanation:____
____
____

16. Is there a capital equipment replacement program?
Yes ☐ No ☐
Explanation:____
____
____

17. Which of the following basic business tools are used? Supply copies of items used.

Long-range forecast of demand	Yes ☐	No ☐
Long-range sales goal	Yes ☐	No ☐
Comparison of factory and distributive capacities with the long-range sales forecast	Yes ☐	No ☐
Long-range expansion program	Yes ☐	No ☐
Long-range financial program	Yes ☐	No ☐
Annual comparison of accomplishments with long-range sales goal, expansion plan, and financial plan	Yes ☐	No ☐
General budget	Yes ☐	No ☐
Estimated statement of profit and loss	Yes ☐	No ☐
Short-range forecast of demand	Yes ☐	No ☐
Production schedule or budget	Yes ☐	No ☐
Inventory formula (e.g., reorder points, EOQ)	Yes ☐	No ☐

Sales budget	Yes ☐	No ☐
Purchase budget	Yes ☐	No ☐
Labor budget	Yes ☐	No ☐
Manufacturing expense budget	Yes ☐	No ☐
Selling and administrative expense budgets	Yes ☐	No ☐
Advertising budget	Yes ☐	No ☐
Break-even calculation	Yes ☐	No ☐
Estimated balance sheet	Yes ☐	No ☐
Cash budget and financial program	Yes ☐	No ☐
Plant and equipment budget	Yes ☐	No ☐
Comparisons of the budgets with operating results	Yes ☐	No ☐

18. Is there a capability within the company to do financial modeling and "what-if" analysis?
Yes ☐ No ☐
Explanation:____
____

Exhibit 20C-5

Business Planning Interview Guide: Summary of Major Problems

Name of Client: ________________________

Start with the most important problems, continuing on to the next in importance, and so forth.

1. Problem: ________________________

   Explanation: ________________________

   ____

   ____

   ____

   ____

   What plans have been developed to address this problem?

   ____

   ____

   ____

   ____

   What limitations, if any, are imposed by:

   - Financial resources? ________________________

     ____

     ____

   - Human Resources? ________________________

     ____

     ____

   - Physical facilities? ________________________

     ____

     ____

   - Technical or market knowledge? ________________________

     ____

     ____

   - Management experience and knowledge? ________________________

     ____

     ____

2. Problem: ____________________

Explanation: ____________________

What plans have been developed to address this problem?

What limitations, if any, are imposed by:

- Financial resources? ____________________
- Human Resources? ____________________
- Physical facilities? ____________________
- Technical or market knowledge? ____________________
- Management experience and knowledge? ____________________

3. Problem: ______________________________

Explanation: ______________________________

____

____

____

____

What plans have been developed to address this problem?

____

____

____

____

What limitations, if any, are imposed by:

- Financial resources? ______________________________

____

____

- Human Resources? ______________________________

____

____

____

- Physical facilities? ______________________________

____

____

____

- Technical or market knowledge? ______________________________

____

____

____

- Management experience and knowledge? ______________________________

____

____

____

4. Problem:

Explanation:

What plans have been developed to address this problem?

What limitations, if any, are imposed by:

- Financial resources?
- Human Resources?
- Physical facilities?
- Technical or market knowledge?
- Management experience and knowledge?

5. Problem: __________

Explanation: __________

What plans have been developed to address this problem?

What limitations, if any, are imposed by:

- Financial resources?
- Human Resources?
- Physical facilities?
- Technical or market knowledge?
- Management experience and knowledge?

6. Problem: ______

Explanation: ______

What plans have been developed to address this problem?

What limitations, if any, are imposed by:

- Financial resources? ______
- Human Resources? ______
- Physical facilities? ______
- Technical or market knowledge? ______
- Management experience and knowledge? ______

7. Problem: ______________________________

Explanation: ______________________________

What plans have been developed to address this problem?

What limitations, if any, are imposed by:

- Financial resources? ______________________________
- Human Resources? ______________________________
- Physical facilities? ______________________________
- Technical or market knowledge? ______________________________
- Management experience and knowledge? ______________________________

8. Problem: ____________________

Explanation: ____________________

What plans have been developed to address this problem?

What limitations, if any, are imposed by:

- Financial resources? ____________________
- Human Resources? ____________________
- Physical facilities? ____________________
- Technical or market knowledge? ____________________
- Management experience and knowledge? ____________________

9. Problem: ______________________________

Explanation: ______________________________

What plans have been developed to address this problem?

What limitations, if any, are imposed by:

- Financial resources? ______________________________
- Human Resources? ______________________________
- Physical facilities? ______________________________
- Technical or market knowledge? ______________________________
- Management experience and knowledge? ______________________________

10. Problem: ______________________________

Explanation: ______________________________

What plans have been developed to address this problem?

What limitations, if any, are imposed by:

- Financial resources? ______________________________
- Human Resources? ______________________________
- Physical facilities? ______________________________
- Technical or market knowledge? ______________________________
- Management experience and knowledge? ______________________________

Exhibit 20C-5.1

Summary of Company's Strengths

Name of Client: ______________________________

1. Strength: ____

   Explanation: ____
   ____
   ____
   ____

2. Strength: ____

   Explanation: ____
   ____
   ____
   ____

3. Strength: ____

   Explanation: ____
   ____
   ____
   ____

4. Strength: ____

   Explanation: ____
   ____
   ____
   ____

5. Strength: ____

   Explanation: ____
   ____
   ____
   ____

6. Strength: ______________________________

Explanation: ______________________________

____

____

____

7. Strength: ______________________________

Explanation: ______________________________

____

____

____

8. Strength: ______________________________

Explanation: ______________________________

____

____

____

9. Strength: ______________________________

Explanation: ______________________________

____

____

____

10. Strength: ______________________________

Explanation: ______________________________

____

____

____

Exhibit 20C-5.2

Summary of Company's Weaknesses

Name of Client: ______________________________

1. Weakness: ____

   Explanation: ____

   ____

   ____

   ____

2. Weakness: ____

   Explanation: ____

   ____

   ____

   ____

3. Weakness: ____

   Explanation: ____

   ____

   ____

   ____

4. Weakness: ____

   Explanation: ____

   ____

   ____

   ____

5. Weakness: ____

   Explanation: ____

   ____

   ____

   ____

6. Weakness: ____________________

Explanation: ____________________

____

____

____

7. Weakness: ____________________

Explanation: ____________________

____

____

____

8. Weakness: ____________________

Explanation: ____________________

____

____

____

9. Weakness: ____________________

Explanation: ____________________

____

____

____

10. Weakness: ____________________

Explanation: ____________________

____

____

____

Exhibit 20C-6

Business Planning Interview Guide: Business Owner

1. What place do you seek for your company in your industry? What present and new business opportunities do you see?

   Major function to be performed

   Degree of diversification

   Quality and price level

   Size desired

   Basic general assumptions (e.g., economic, political, governmental)

2. How much and through which ways do you want your company to grow?

   Initiative

Risk taking

Raising of capital

3. What is the social philosophy of your company? What changes, if any, would you like to see?

Community relations

Customer service

Employee relations

Stockholder relations

Supplier contacts

Relations with competitors

4. What is the management philosophy of your company? What changes, if any, would you like to see?

Centralization of decision making

Quality of key personnel

Attitude toward planning and control

Strictness of supervision

5. What are your personal objectives with respect to your company?

Degree of involvement and control

Ownership/management succession

Personal growth

Profitability

Exhibit 20C-7

Business Planning Interview Guide: Key Personnel

1. Over the past three years, how well did the company do in the following areas?

   Sales

   Investments

   Profits

   Return on investment

   Market share

   Trends

   Competition

2. What are the company's resources?

3. What are the company's strengths?

4. What are the company's weaknesses?

5. What are the company's major problems?

6. Of the three external forces listed below, which ones will affect the company in the future and why?

Economy

Industry

Government

7. In which of the following areas are there major opportunities for improvement?

Management

Marketing

Production

Research and development

Engineering

Finance

Administration

8. Where has past growth come from?

   Products

   Customers

   Geographic location

9. Where will future growth come from?

   New Products

   New customers

   Geographic expansion

10. What do you expect to achieve with respect to growth in the following areas?

    Sales

    Net Profit

    Additional working capital

    Additional plant, property, and equipment

Additional debt

____

____

Additional investment in the company

____

____

11. How would the following situations affect the company?

No growth

____

____

Limited growth

____

____

Fast growth

____

____

12. Is the company equipped to handle growth in the following areas?

Systems/EDP Yes ☐ No ☐
Explanation:______________________________________

____

Inventory control Yes ☐ No ☐
Explanation:______________________________________

____

Facilities Yes ☐ No ☐
Explanation:______________________________________

____

Personnel Yes ☐ No ☐
Explanation:______________________________________

____

Management skills Yes ☐ No ☐
Explanation:______________________________________

____

Net worth Yes ☐ No ☐
Explanation:______________________________________

____

13. What is the company's phase of growth?

14. What are the management styles of the company president and other executives?

15. What is your evaluation of other members of the management team?

16. What are your personal goals for the next five years? The next ten years?

17. What changes would you make in the company if you had complete control?

18. What is the organization's structure (organization chart of personnel)?

19. What is your evaluation of the company's profitability, by product(s) and by customer(s)?

20. What can be done to improve profitability?

21. How would you evaluate the company's facilities?

    Size of present facilities and ability to accommodate present volume

    Ability of facilities to accommodate growth (specify amount)

22. What is your evaluation of the company's financing?

Adequacy of current financing

Amount of financing needed for growth

Sources of financing

23. Does the company have a marketing plan?

24. What is the company's marketing philosophy?

25. What type of planning does the company practice?

Short-range

Long-range

Corporate

Strategic

Operational

26. What is the company's market share?

27. What is the company's competition?

28. What is your evaluation of the company's management information systems?

29. What is your evaluation of the company's communication system?

30. What are the company's need projections and what is your reaction to them?

BIBLIOGRAPHY

Ackoff, Russell L. *A Concept of Corporate Planning*. New York: Wiley Interscience, 1970.

________. *Creating the Corporate Future: Plan or Be Planned For*. New York: John Wiley & Sons, 1981.

Argenti, John. *Corporate Planning: A Practical Guide*. Homewood, Ill.: Dow Jones-Irwin, 1968.

________. *Practical Corporate Planning*. London: George Allen & Irwin, 1980.

Brandt, Steven. *Strategic Planning in Emerging Companies*. Reading, Mass.: Addison-Wesley, 1981.

Denning, Basil W. *Corporate Planning: Selected Concepts*. London: McGraw Hill, 1971.

________. *Making Strategic Planning Work in Practice*. London: Pergamon Press, Inc., 1989.

Irwin, Patrick H. *Business Planning: Key to Profit Growth*. Toronto: Ryerson Press, 1969.

Osgood, William R. *Basics of Successful Business Planning*. New York: American Management Association, 1980.

21/100 ASSISTING CLOSELY HELD BUSINESSES TO PLAN FOR SUCCESSION

CONTENTS

21/100 ASSISTING CLOSELY HELD BUSINESSES TO PLAN FOR SUCCESSION

21/105 INTRODUCTION

.01 Management succession is a significant challenge for many business owners, but because it is often neglected until a crisis erupts, succession decisions are often forced. Owners who fail to deal with this issue in a forthright and timely manner can upset the harmony of family and business relationships. Some owners fail to address the issue because they are so immersed in operating the business that they neglect even such a vital question as who will take over in the event of disability, retirement, or death. Sometimes owners assume that a child or other relative will step right in, even if they have never discussed this possibility with the individual concerned. Such an assumption may be incorrect in view of the inclination of many to pursue a career outside the family business.

.02 In planning for succession, some owners may need to consider the interests of key employees who, though not family members, have contributed to the success of the business and expect a managerial role. Other owners may choose a successor but overlook training him or her to operate the business effectively. To identify the optimum solution, owners such as these often require the assistance of objective practitioners who may have prior knowledge of the operations, family, and personnel involved.

21/110 SCOPE OF THIS PRACTICE AID

.01 This practice aid describes the issues practitioners need to consider and an approach they may take to assist clients in planning for succession. It includes a checklist of company and industry information that will help practitioners and their clients to select the best succession solution. In addition, a case study illustrates several approaches to succession planning.

.02 The succession alternatives described in this practice aid involve the continuation of the business by family members or employees. It does not cover in detail other alternatives such as sales, mergers, or acquisitions, which may be appropriate for certain clients. Practitioners considering these alternatives will find guidance in section 75/100, "Mergers, Acquisitions, and Sales."

.03 Because the tax and legal implications of succession may change rapidly and vary greatly, practitioners need to investigate these matters and consult counsel as appropriate.

.04 To reach a decision about succession alternatives, the client may need a valuation of the business. For information on this service, the practitioner can refer to MAS Small Business Consulting Practice Aid No. 8, *Valuation of a Closely Held Business*.

21/115 TYPICAL ENGAGEMENT SITUATIONS

.01 An opportunity for the practitioner to assist in or make recommendations in developing a management succession plan may result from the following situations.

- An owner plans to retire but has no successor.
- A designated successor is no longer interested or available.
- A designated successor needs further training to operate the business effectively.
- An owner's retirement plans have changed, creating a need for a new plan.
- A designated successor lacks the financial resources required by the owner and therefore a new plan is needed.

21/120 ENGAGEMENT UNDERSTANDING

.01 To reach an understanding, the practitioner and client first discuss several considerations, such as the engagement's scope and the client's expectations. The practitioner then outlines the understanding in an engagement letter.

Engagement Considerations

.02 Depending on the practitioner's knowledge of the client's business, the scope of the work can range from one or more consultations to a formal engagement requiring considerable research. The practitioner may be involved in the preliminary evaluation, in the preparation of recommendations, and in the implementation of the plan. The practitioner's role is to assist the client throughout the entire process of choosing the solution that best satisfies the client's personal objectives and provides a means for continuation of the enterprise. This assistance goes beyond fact-finding and planning. The practitioner also acts as a facilitator in the transfer process.

.03 The extent and nature of the practitioner's work often depend on the urgency of the client's need for service and on the availability and capability of the owner or designated successor to assist. However, the client is involved as much as possible, providing essential data and assumptions and, most important, deciding on the course of action. Other consultants, such as a psychologist, appraiser, or engineer, may also be part of the consulting team.

.04 In reaching an understanding with the client, the practitioner avoids guaranteeing that the engagement will result in the successful transfer of the business (assuming there is a transfer) and makes clear that the fee is not contingent on the outcome.

.05 In some instances, the practitioner is familiar with the client's situation and can immediately establish an understanding about the engagement. In many cases, however, the practitioner needs to interview the client to determine whether he or she is emotionally prepared to adopt a succession plan. The practitioner also reviews financial statements and tax returns to determine whether a succession plan is economically feasible.

.06 This basic client information can help the practitioner to focus quickly on the most appropriate succession alternatives. The practitioner may learn, for example, that the business's form of ownership limits transfer possibilities. Similarly, the client's financial history and local economic and industry data may provide insight into the business's prospects for continuation.

The Engagement Letter

.07 After completing the preliminary interview, the practitioner establishes an engagement understanding with the client and documents it in a letter. The letter describes the client's request for service, defines the objectives and potential benefits of the engagement, outlines its scope and the approach that will be taken, and identifies the practitioner's and the client's responsibilities. The letter also indicates the time frame, fees, and billing method. Fees are often based on time spent. The practitioner who wishes to base fees instead on the value of services rendered (value billing) first discusses this with the client. A sample engagement letter is provided in exhibit 21B-1 of appendix 21/B.

.08 Often, the scope of the work changes as the engagement proceeds. The practitioner needs to evaluate such changes to ensure that the necessary resources and staff are available to complete the engagement. An addendum to the engagement letter documents the additional work needed.

21/125 CONDUCTING THE ENGAGEMENT

.01 An engagement to assist in planning succession usually involves gathering facts, developing a plan based on this information, and reporting the findings and recommendations to the client. The practitioner also participates in implementing the plan.

Fact-Finding

.02 During the fact-finding phase of the engagement, the practitioner builds on the information obtained in the preliminary survey. Through interviews and the review of company documents and data, the practitioner obtains additional information about the goals of the owner, the owner's family, key employees, and the business. In gathering this information, the practitioner considers the issues described in the remainder of this section. The checklists in appendix 21/A may also help the practitioner to evaluate the client's situation.

.03 **Company Information.** Before interviewing client personnel, the practitioner reviews the following basic information:

- Financial statements and tax returns
- Documentation of the form of ownership
- Company history
- The owner's goals and business plan
- The backgrounds of key personnel
- The backgrounds of family members (employees and nonemployees)
- Any existing buy-sell agreement
- Industry data and trends

.04 **Owner Information.** In a meeting with the owner, the practitioner asks the following questions:

- Does the owner have any specific ideas about succession? If so, what are their advantages and disadvantages?
- How do co-owners or involved family members feel about these ideas?
- Is there a strategic plan or a business plan?
- Will the owner consider a sale to key employees or a third party, the creation of an employee stock ownership plan (ESOP), a merger, or liquidation?
- How does management feel about change, and what is the timetable for succession? Can management manage the change?

.05 **Family Information.** If transfer of the business to a family member is possible, the practitioner gathers information about succession candidates. The information includes their current owner status and positions in the company organization, as well as other data that will help in assessing their personal and financial qualifications. Exhibit 21A-1.2 of appendix 21/A provides a checklist of additional information that may assist the practitioner.

.06 Key Employee Information. The practitioner interviews key employees to determine their opinions regarding the current performance and future potential of the company and their outlook on a potential sale or transfer and its impact on them. The practitioner also asks the owner to identify possible successors among key employees and assesses the capabilities of each. Exhibit 21A-1.3 provides a checklist of key employee information.

Developing Alternatives for Succession

.07 After analyzing all the data, the practitioner considers the alternatives for succession. The most common alternatives are—

- A plan for family succession.
- A sale to key employees.
- The establishment of an ESOP (see exhibit 21A-1.4).
- The installation of a new chief executive officer (CEO).

.08 No single alternative, however, is always appropriate. Alternatives involving family members and key employees may allow for variations depending on the individuals involved, and therefore each variation needs to be considered separately. The practitioner discusses with the owner the advantages and disadvantages of each alternative in terms of business growth, tax consequences, and owner, family, and employee goals. These goals are often found to be in conflict.

.09 Two other alternatives may be viable: (*a*) a sale to or merger with an outsider and (*b*) liquidation. These alternatives are outside the scope of this practice aid, but the practitioner can use the questions provided in the checklists in exhibits 21A-1.5 and 21A-1.6 of appendix 21/A to consider them.

.10 To evaluate the more probable alternatives, the practitioner can use the "Succession Alternative Evaluation Worksheet" found in exhibit 21A-2 of appendix 21/A. However, the practitioner should be aware that emotional factors are as important as financial ones, and that they need to be carefully considered when developing engagement recommendations.

.11 Planning for Family Succession. When younger family members are interested in the business and the older generation strongly desires that the family continue to control and operate it, the ideal course of action may be to plan for family succession. The younger members, however, sometimes lack the experience and training needed to continue the business successfully. If this situation exists, the owner and practitioner consider installing a new CEO to provide the needed skills until the designated family member can properly manage and control the business.

.12 Even when these skills are present, such family dynamics as sibling rivalry may create conflicts that interfere with running the business. For example, when several family members are of the same age and ability, the selection of a successor may cause friction. In such cases, professionals skilled in solving such conflicts may be needed. If no family member is capable of running the business, hiring a new CEO can allow family ownership to continue without direct family management.

.13 The most satisfactory method of transferring ownership to a designated family member is to involve all family members in developing and implementing a definite plan. The plan needs to specify whether the transfer is a sale, gift, or bequest. This is particularly important when the owner wishes to exploit the transfer's tax consequences or obtain compensation from the successor. The plan also needs to define the time frame for the transfer, the responsibilities of the parties involved, and the mechanics of the ownership change (for example, legal filing or registration).

.14 **Selling to Key Employees**. Selling the business to employees who are not family members is similar to selling it to members of the family, except that many of the interpersonal problems unique to family relationships are absent. The employees need to have the financial resources to acquire the business as well as management capabilities. The arrangements for employees can vary according to the owner's preferences and the employees' circumstances. The questions contained in the checklist in exhibit 21A-1.3 of appendix 21/A will help the practitioner and client to determine whether a sale to key employees is the preferable course of action.

.15 **Establishing an Employee Stock Ownership Plan**. The client can transfer the ownership of a company by adopting an ESOP. Under this plan, the company each year contributes a portion of earnings to the ESOP to enable it to buy a percentage of the company stock. Although this alternative can bring about a change of ownership, the longer time frame required may prove restrictive. In addition, succession in management will need to be addressed.

.16 The practitioner needs to warn the client about the following pitfalls associated with an ESOP:

- The company's assets and earning power are at risk for repayment of the ESOP debt; default could place the company in bankruptcy.
- Private companies must give their employees the right to sell their stock to the company at its current market value. This could place a strain on a company with aging employees who wish to sell their stock upon retirement.
- An annual appraisal of the fair market value is required under the Tax Reform Act of 1986.

.17 **Installing a New Chief Executive Officer**. For an owner who wishes to retain ownership, an innovative approach to planning for succession may be to create a board of directors and install a new CEO to run the business while the owner keeps right of ownership. This approach can be particularly useful if the owner believes that the value of the business will significantly increase.

Communicating Findings and Recommendations

.18 An essential part of the succession engagement is communicating with the client. During the engagement, the practitioner documents the facts gathered in the working papers. The practitioner, however, may wish to keep confidential any conclusions about the ability of individuals to run the business successfully. The findings may form the basis of recommendations for action by the client or may simply serve to help the client reach a decision. Although the practitioner may report orally on portions of the engagement, the client needs to receive periodic written reports as the engagement proceeds as well as a final report. The interim reports may be memorandums that both parties can use as references.

Implementing the Succession Plan

.19 After the client decides on the method of succession, the practitioner and key personnel develop a detailed succession plan with milestone dates. The practitioner plans to assist in the implementation even if the client intends to manage the change. The practitioner monitors the implementation schedule, acts as a liaison between the client and other parties (including bankers, attorneys, investors, employees, and family members) and may also conduct or direct any training called for in the plan.

APPENDIX 21/A

ILLUSTRATIVE FORMS

Exhibit 21A-1.1

A Checklist of Company and Industry Information

Company Description

What are the company's products and services?

How, when, and where are the products made and the services rendered?

What information is available for assessing the company's position in the industry?

Are marketing studies available?

What is the number of employees?

Management Information

What is the organizational structure of the business?

Is a management information system in place?

Financial Information

What are the company's sources and amounts of capital?

What are the annual gross sales of the company?

What is the value of the business?

Are financial statements for the current and previous years available?

Have forecasts and projections been developed?

Are comparative industry statistics available?

What documents describe the pension or profit-sharing plans?

Are copies of loan agreements and related covenants available?

What pertinent written agreements of any other type, including union contracts, are available?

Personnel Policies

How are key employees and family members compensated?

How frequently are reviews conducted?

Are performance evaluations of key employees and family members available?

Are there existing employee contracts?

Exhibit 21A-1.2

A Checklist of Family Information

Who are the family members currently involved in operating the business?

What are their job descriptions?

How are they compensated?

Which family members are not involved in operating the business? What businesses are they in? What business and educational experience do they have?

Do any family members who are not involved in operating the business have an ownership interest in the business?

What are the relationships of the people who are going to stay in the business?

Are any family members in the business qualified to be president or managers? What is the basis for the determination?

Can the family member who is selling the business retire when and in the manner desired if family succession is chosen rather than outside sale?

Have any promises to or agreements with family members and key employees been made?

Will key employees stay if the business passes to a family member?

What current or potential conflicts exist among family members?

Is the family willing to openly discuss the options available?

What are the withdrawing members' plans for involvement with the business after the transfer of ownership?

Are all family members willing to sell their interests?

Exhibit 21A-1.3

A Checklist of Key Employee Information

Who are the key employees within the organization?

Which key employees will stay if the business is sold to outsiders?

In the owner's opinion, which key employees have the expertise to run the business?

Are any key employees interested in owning the business?

What are the advantages of selling to key employees over selling to or merging with an outside party?

What are the disadvantages of selling to a specific employee or group of employees? (Consider each employee or group separately.)

Do the employees have the resources to buy the business or arrange a deal to buy? (Consider each employee or group separately.)

What current or potential conflicts exist among key employees?

Exhibit 21A-1.4

A Checklist of ESOP Information

Are the company's assets and current income sufficient to repay ESOP debt?

Can the company afford to purchase stock from employees at current market value in the short- and long-term?

Are the buyers and sellers aware of the administration and general business problems associated with ESOPs?

Will the employees support an ESOP plan?

Exhibit 21A-1.5

A Checklist of Outside Sale or Merger Information

Does the client need assistance in locating an outside party?

What is the value of the business?

Is the business salable?

Is it a viable merger candidate?

Does the client know any potential buyers or merger candidates?

What is the profile of the ideal buyer or merger candidate?

What steps can be taken to make the client's business a more attractive candidate for purchase or merger?

Does a formal offering memorandum need to be developed?

Has the method used to value the company been reviewed?

What terms for the purchase or merger is the outside party proposing?

What security is offered by the purchasers?

Have the tax consequences of the sale or merger to the outside party and the client been considered?

What are the products or services of the outside party?

Are the outside party's products or services compatible with those of the client?

Are the financial statements of the outside party available?

What is the business plan of the outside party?

What are the references of the outside party?

What is the history of the outside party?

What are the personnel policies of the outside party?

Are there any golden-parachute or tin-parachute provisions for current employees?

What plans does the outside party have for current employees of the business?

What are the strengths of the two companies combined?

What is the analysis of the stock of the merged company?

What are the liquidity and value of the stock or other securities received in a merger?

Exhibit 21A-1.6

A Checklist of Liquidation Information

Have the assets and liabilities of the business been valued on a liquidation basis?

What are the costs of outplacement for employees?

Do the leases have value? If not, what is the termination expense?

In the event of liquidation, what would be the impact of any contingent liabilities?

Is partial liquidation or divestiture an alternative?

What are the tax effects of liquidation?

Exhibit 21A-2

Succession Alternative Evaluation Worksheet

Instructions

The key to effective use of this succession alternative worksheet is to develop appropriate selection factors and assign them proper weights. This procedure provides flexibility because the factors can be few or many. The client, assisted by the practitioner, establishes the major factors that will influence the selection of the succession alternative. In the "Sample Succession Alternative Evaluation Worksheet" management selected four major factors:

1. Owner's personal preference
2. Family preference
3. Employee satisfaction
4. Best tax result

Management then ranked each factor in order of importance and assigned it a weight, from four points to one point, as shown in column B of the sample worksheet.

Using objective and documented analysis, the practitioner evaluates and rates each succession alternative on a scale of one to ten points (with ten being the highest rating possible) for each of the major factors. In the sample worksheet, the point ratings are on the left side of each alternative factor block (columns C through H). For example, the practitioner gave the family succession alternative a rating of nine points because it was the owner's preferred alternative (see block C1). However, this alternative was the one least preferred by the family and employees. Consequently, the practitioner rated it one for these selection factors (see blocks C2 and C3).

Each point rating is multiplied by the weight in column B to produce the scores, shown on the right side of each factor block (columns C through H). The points in each column are added up, and the higher scores usually indicate the preferred alternatives.

Scores resulting from this evaluation technique provide only approximate comparative values. The practitioner reviews the results of the evaluation with management, who makes the final decision.

Sample Succession Alternative Evaluation Worksheet

A	B	C	D	E	F	G	H
Selection Factors	*Level of Importance (Weight)*	*Family Sucession*	*Sale to Key Employees*	*ESOP*	*Retained Ownership with Hired CEO*	*Sale to Outside Party*	*Liquidation*
1. Owner's personal preference	Points / 4 / Score	9 / 36	8 / 32	4 / 16	3 / 12	7 / 28	1 / 4
2. Family preference	Points / 3 / Score	1 / 3	8 / 24	6 / 18	6 / 18	4 / 12	2 / 6
3. Employee satisfaction	Points / 2 / Score	1 / 2	8 / 16	9 / 18	5 / 10	8 / 16	1 / 2
4. Best tax result	Points / 1 / Score	9 / 9	3 / 3	4 / 4	9 / 9	8 / 8	8 / 8
Total	100	50	75	56	49	64	20

APPENDIX 21/B

CASE STUDY: DEVELOPMENT OF A SUCCESSION PLAN FOR JOHNSON MANUFACTURING COMPANY, INC.

Background

At 55 years of age, Sam Johnson, president of Johnson Manufacturing Co., Inc. (JMC), wanted to retire from the stick-horse manufacturing company that he had founded and developed steadily over the years. Johnson's brother recommended that he contact John Goode, of CPA and Company, who was experienced in assisting clients in planning for ownership transfers. In May 19XX, Johnson and Goode met to discuss concerns that Johnson had regarding succession. Johnson asked Goode to consider a succession planning assignment.

To assess JMC as a potential client, Goode contacted local businesses and learned that they considered JMC an excellent client and business. He also learned that the company was well managed, had a good reputation in the industry and the community, and had a respect for professional advice. In addition, JMC's record with the Better Business Bureau, the Credit Bureau, and Dun & Bradstreet was excellent.

Based on this information, Goode accepted the engagement and sent Johnson a letter to confirm the engagement understanding (see exhibit 21B-1).

After receiving the signed engagement letter, Goode developed a program to guide his work on the assignment. He met with Johnson to gather the general information needed to understand the business and the personal relationships of its majority owner. The three scenarios on the following pages illustrate the three possible courses of action Johnson could take in transferring ownership of the firm. The plan for succession differs in each because the information about Johnson's children and other key JMC employees is altered for illustrative purposes.

Scenario One: Transfer of Ownership to a Family Member

During the fact-finding phase of the engagement, Goode develops the following profiles of JMC's key personnel.

President—Sam Johnson, Sr. Johnson owns 80 percent of JMC. Financially independent, he does not need his salary to live. His son and daughter are involved in the business. Johnson places a high value on the business. He wants a guarantee on the payout, and he expects to be paid for the outstanding future that he believes the firm has.

Vice President—Sam Johnson, Jr. Sam Jr. owns 15 percent of the stock and is also the company's chief operating officer. Young Sam, who has a college degree in business, has been with the company for ten years—all of his adult life. During this time, he has been involved in all facets of operations and has helped to build the business. Sam Jr. is concerned about receiving payment for the value he has contributed to the business and for the value he would be adding. He is also concerned that the sale price and payout that his father wants will strap the business and will be economically unfair to him and to his sister, Lucy.

Treasurer—Elmer Payton. Payton handles the controllership function of the company. He has been involved in all facets of the operation and has extensive knowledge of the business.

General Foreman—Warren Stock. Stock is in charge of overall production. He is approximately the same age as Sam Jr. and has a degree in engineering. He works very diligently.

Secretary—Lucy Johnson. Sam's daughter, Lucy, owns 5 percent of the stock. Currently, she works in the accounting department but she has assisted in all facets of the business. Lucy would be content to be an employee of the business, but her father wants to be fair and include her in its affairs. Sam Jr. seems unconcerned about his sister's involvement, but he *is* anxious about whether or not he will have control of the business when his father retires. Lucy wants to take an administrative role and to assist in the continued success of the business and earn her keep. Her father fears, however, that if she is promoted dissension may develop, thereby harming the business and endangering his payment.

Analysis

Goode evaluates this information in light of the owner's objectives and concludes that succession by Johnson's children is the most viable option. Goode reasons that the children's experience in the operations of the business, their interest in it, their father's goal to keep it in the family, and his financial backing make family succession the best approach. After telling this to Johnson, Goode meets with the two children to gather additional information about their capabilities and interest in JMC.

Goode's further evaluation of Sam Jr. and Lucy convinces him to recommend family succession. His discussions with them assure him of their capabilities. Sam Jr. has helped build the business and has a good working knowledge of the industry, and Lucy has been involved in business operations all her adult life. He finds further support for this conclusion in the likelihood that key employees will not leave after Sam Sr.'s retirement.

Outcome

To develop a plan of succession, Goode proposes that CPA and Company, in a separate engagement, first prepare a valuation of JMC as well as projected financial statements for the next five years, a financial and estate plan, and job descriptions for key employees after Johnson's retirement.

With input from the Johnson family and key employees, Goode develops a five-year plan to facilitate the business succession. During these five years, the father's stock will be given to the son and daughter, using the tax-free permits of the Internal Revenue Service Gifts Tax Law. The son and daughter will attend management development classes to prepare them for their roles in the company. The plan includes details of the new organization and job descriptions.

Sam Sr. agrees to withdraw gradually from operations over five years. At the end of the fifth year, he will complete a sale of the business according to the formula described in the five-year plan. The plan calls for the father to finance a part of the sale and for local banks to finance the balance. Goode selects this approach because he knows that in considering loan requests banks generally favor this type of family succession as long as the company will not be overloaded with debt after the buyout.

A summary of the agreement regarding sale price and the terms of repayment is drawn up and signed by family members. Goode and the family meet with other senior management people to discuss the results of the negotiations and to review and ratify the job descriptions.

The practitioner documents all points of the negotiation process and their results, including memorandums of meetings in the workpapers. All information used to evaluate possible successors and to determine value is added to the workpapers.

Scenario Two: Sale to Key Employees

The background of the second scenario is the same as that of the first. Some information about key personnel is changed, however, to illustrate how the practitioner may reach a different conclusion. In this scenario, Johnson's children do not want to own or manage the business, but other key personnel do.

Vice President—Sam Johnson Jr. Sam Jr. owns 15 percent of the stock. He is the company's chief operating officer but in name only, since his father makes all important decisions. His father's reluctance to delegate responsibility to him has been a cause of frustration. He has a college degree in business. He teaches college part-time and has established a successful part-time business in a related field but lacks the funds to expand it. Sam Jr. has worked hard and has significantly contributed to the business. He believes that if he leaves to pursue other opportunities, he will not receive compensation commensurate with his contribution and his father may not retire or plan for succession. In addition, he fears that Sam Sr. will never truly withdraw from the business, even after official retirement. Sam Jr. does not get along with the treasurer and company managers.

Treasurer—Elmer Payton. Payton handles the controllership function of the company. He has been involved in all facets of operations and has extensive knowledge of the business.

General Foreman—Warren Stock. Stock is in charge of overall production. He is approximately the same age as Sam Jr. and has an engineering degree. Stock works very hard. Sam Sr. has consistently vetoed his proposals to produce other products that are similarly manufactured. He, too, would like an ownership and senior management position in the company.

Secretary—Lucy Johnson. Sam's daughter, Lucy, owns 5 percent of the stock. Currently working in the accounting department, she has assisted in all facets of the business.

Analysis

After evaluating this information in light of Sam Sr.'s objectives, Goode concludes that a sale to key employees is the most viable option. The treasurer and general foreman are highly experienced, are prepared to run the business effectively, and have the required financial resources.

After telling this to Johnson, Goode arranges a meeting with the two key employees to gather additional information about their capabilities and interest in JMC. Goode's further evaluation of family members and key employees leads him to recommend that the key employees purchase the business.

The recommendation is supported by Sam Jr.'s desire to start his own business and Lucy's preference to become an employee.

Sam Sr. offers his own funds to expand Sam Jr.'s part-time business. Sam Jr. is pleased with this offer because it increases his chance to succeed on his own. Sam Sr. also agrees to provide financially for his daughter.

Outcome

To develop a detailed succession plan, Goode proposes that CPA and Company, in a separate engagement, first prepare a valuation of JMC as well as projected financial statements for the next five-year period, a financial and estate plan, and terms for the sale of the business to the key employees.

Goode develops a stock purchase agreement with key employees to facilitate the business succession. Under the agreement, the business ownership would be transferred in three years, when Johnson is ready to retire. This will also give the employees more time to obtain additional financing. The key employees should attend management development classes to prepare them for their roles in managing the business.

As in the first scenario, the practitioner documents all information in the workpapers.

Scenario Three: Creation of an ESOP

The background of the third scenario is the same as that of the first and second scenarios. Some information about the key employees is changed for illustrative purposes. As in the second scenario, Johnson's children do not want to own and manage their father's business, but the two other key employees want to continue managing the company. However, in this scenario, the two employees lack the financial resources to purchase the company.

Treasurer—Elmer Payton. Payton handles the controllership function of the company. He has been involved in all facets of the operation and has extensive knowledge of the business. Payton wants greater authority to make key decisions on his own. His financial resources are moderate.

General Foreman—Warren Stock. Stock is in charge of overall production. He is approximately the same age as Sam Jr. and has a degree in engineering. Stock works very diligently at his job and wants to continue with the company. He would like to purchase stock in the company.

Secretary—Lucy Johnson. Sam's daughter owns 5 percent of the stock. She has assisted in all facets of the business and is currently in the drafting department. Although Lucy would be content to be an employee of the business, her father wants to be fair and include her in the affairs of the business. However, Lucy would prefer not to have the responsibility of running the company.

Analysis

Goode evaluates this information in light of Sam Johnson, Sr.'s objectives and concludes that succession by employees through an ESOP is the most viable option. His main reasons for choosing an ESOP are the experience of the two key employees in the operations of the business, their interest in it, their limited financial resources, the bank's willingness to assist in the repurchase of shares, and the growth and strong financial performance of the business. After telling this to Johnson, Goode meets with the two key employees to gather additional information about their capabilities and interest in JMC.

Sam Sr. offers Sam Jr. the funds to expand his part-time business. Sam Jr. is pleased with this offer because it increases his chance to succeed on his own. Sam Sr. also agrees to provide financially for Lucy.

After reviewing the key employees and other support people, Goode recommends the establishment of an ESOP. He decides against a family succession plan because Sam Jr. wishes to pursue his own business and Lucy does not want to be involved in the existing business operations. The ESOP seems viable because the company has a strong balance sheet, good earnings, and the ability to repay any financing required to buy the family shares.

Outcome

To develop a plan of succession, Goode proposes that CPA and Company, in a separate engagement, first prepare a valuation of JMC as well as projected financial statements for the next five years, a financial and estate plan, and job descriptions for key employees after Johnson's departure.

Goode develops a three-year plan to facilitate the business succession plan and attract financing from the local bank. The family's stock is sold to the ESOP. The key employees attend management development classes to prepare them for their roles in managing the company.

Several banks agree to finance the ESOP because the company is not expected to be overloaded with debt after the repurchase of shares. The key employees sign a summary of the agreement concerning the fair market value of the shares to the ESOP and the terms of repayment to the bank. Goode, Johnson, and the key employees meet with the other top management people to discuss the results of the negotiations and to review and ratify the job descriptions.

As in the first and second scenarios, the practitioner documents all information in the workpapers.

Exhibit 21B-1

Illustrative Engagement Letter

CPA and Company
200 Main Street
Anytown, USA 00000

May 7, 19XX

Mr. Sam Johnson, Sr.
Johnson Manufacturing Company, Inc.
P.O. Box 111
Anytown, USA 00000

Dear Mr. Johnson:

This letter confirms our understanding of the services we will perform for Johnson Manufacturing Company, Inc. (JMC). The objective of our engagement is to assist you with a plan for succession. We will discuss separately an engagement to determine the value of your business. During the engagement, we will—

1. Gather background information on the company.

2. Interview you to understand your goals and objectives.

3. Interview potential successors.

4. Interview key management employees.

5. Analyze alternative succession plans to determine their advantages and disadvantages.

6. Assist in implementing the succession plan.

The outcome of the engagement will be a plan to facilitate an orderly transfer of ownership and management of the company and help you obtain a reasonable sales price to assist your financial independence in retirement. We will also provide recommendations to minimize your estate tax. JMC agrees to cooperate and provide information and documents requested by our personnel.

Stan Adams and Nancy Jones of CPA and Company will assist me in interviewing, gathering facts, and writing reports. It is our understanding that you will be our liaison in the project. We expect the project to take between eight and twelve weeks from start to implementation.

CPA and Company will use its best efforts and professional judgment in conducting the engagement; however, we are unable to guarantee any specific results as a result of the engagement recommendations.

The fees for these services will be based on the value of the services rendered. In addition, we will bill for out-of-pocket costs. We will bill monthly. Invoices are due upon presentation. Fees more than thirty days past due will incur a service fee of 1-1/2 percent per month on the unpaid balance. Any costs incurred in the collection of our fees will be reimbursed by Johnson Manufacturing Company, Inc.

If this letter defines your understanding of the engagement, please sign and date it and return one copy to us, along with a retainer of $2,000 to be applied against the first bill.

Sincerely,

____

John Goode, CPA
CPA and Company

Accepted by Johnson Manufacturing Company:

____

Sam Johnson, Sr., President

____

Date

BIBLIOGRAPHY

Aronoff, Craig E., and John L. Ward, eds. *Family Business Sourcebook.* Detroit: Omnigraphics, Inc., 1991.

Bank of America. *Management Succession.* San Francisco: Bank of America, 1981.

__________. *Management Transitions.* San Francisco: Bank of America, 1981.

Bowman-Upton, N. "Family Business Succession." *Baylor Business Review* (Summer 1988): 26-30.

Danco, L.S. *Beyond Survival.* 5th ed. Cleveland, Oh.: The University Press, 1982.

__________. *Inside the Family Business.* Cleveland, Oh.: The University Press, 1980.

Fritz, Roger. *The Entrepreneurial Family.* New York: McGraw-Hill, 1991.

Lea, James. *Keeping It in the Family.* New York: John Wiley & Sons, 1991.

Mancuso, Joseph R., and Nat Shulman. *Running a Family Business.* Englewood Cliffs, N.J.: Prentice Hall Press, 1991.

Pattan, J.E. "Succession Planning: Management Selection." *Personnel* (November 1986): 24-8, 30-4.

Redding, D.C. "Developing Successors in Senior Management." *Retail Control* (January 1987): 2-33.

Rosenblatt, P.C. *et al. The Family in Business.* San Francisco: Jossey-Bass, 1985.

Stern, M.H. *Inside the Family Held Business—A Practical Guide for Entrepreneurs and their Advisors.* Clifton, N.J.: Law and Business, Inc., 1986.

The following periodicals frequently include articles about succession planning:

Family Business (monthly)
Family Business Publishing Company, Inc.
38 Mahaiwe St.
Great Barrington, MA 01230

Family Business Magazine (bimonthly)
Independent Business Institute
Box 1048
Norton, OH 44203-9448

Family Business Review (quarterly)
Jossey-Bass, Inc.
350 Sansone St.
5th Floor
San Francisco, CA 94104

22/100 EVALUATING AND STARTING A NEW BUSINESS

CONTENTS

22/100 EVALUATING AND STARTING A NEW BUSINESS

22/105 SCOPE OF THIS PRACTICE AID

.01 Throughout our nation's history, creating and managing businesses have been compelling goals for many individuals. For these people starting a business is the fulfillment of the American dream — the realization of personal independence and prosperity. This desire continues unabated and has led to more business start-ups than ever before. Unfortunately, few of these entrepreneurs recognize the risks or are prepared to deal with the management problems associated with starting a new business. As a result, many more new businesses fail than succeed.

.02 This practice aid describes how practitioners can assist clients in evaluating and starting a new business. It also explains how practitioners can draw on their professional training and experience in finance and management to help clients gain the expertise needed to maximize their chances for success. Practitioners can perform both types of assistance as consultations or advisory services as defined in the Statement on Standards for Consulting Services (SSCS), *Definitions and Standards* (AICPA, *Professional Standards,* vol. 2, CS sec. 100) and may wish to research other business publications for additional information.

.03 Practitioners need to recognize the tax implications of starting a new business. This practice aid discusses many of these considerations. However, because tax laws frequently change, practitioners should be aware of possible alternative approaches.

22/110 THE PRACTITIONER'S ROLE

.01 When providing consulting services involving business start-up advice and assistance, the practitioner's principal role may include gathering and analyzing facts, including demographic, product, marketing, and resource information; making recommendations about whether to proceed with or abort the business venture; and offering information on alternative organizational forms, such as partnerships or corporations. A practitioner's well-founded recommendation against starting a venture may be crucial, since the client's life savings may be at stake.

.02 If the client does decide to start a business, the practitioner can provide assistance with key activities and tasks involved in the start-up. In such engagements, the role of the practitioner varies, depending on the client's desires, abilities, experience, and particular circumstances. In some instances it involves coordinating the work of others, such as the client's staff. In other cases the practitioner assumes a more direct role in conducting research and analysis. Regardless of the type of assistance provided, it is extremely important that the client be actively involved in all phases of the engagement. The client makes all decisions about what actions to take; the practitioner does not assume management responsibility in a consulting services engagement.

.03 The success of many new businesses depends on the client's business expertise. Therefore, the practitioner needs to be alert to deficiencies in the client's understanding and knowledge, especially of financial management and marketing. After discussing the deficiencies openly and frankly with the client, the practitioner may recommend using educational vehicles or hiring experienced personnel to overcome any weaknesses.

22/115 PRELIMINARY ENGAGEMENT ACTIVITIES

Client Acceptance Considerations

.01 A client usually requests assistance from a practitioner in evaluating and starting a new business. In deciding whether to accept a client, a practitioner considers the request for service in light of his or her and the firm's standards, policies, and capabilities. If a prospective client requests services, the practitioner might ask the following questions:

a. Who referred the prospective client?

b. Has the prospective client previously engaged another practitioner and, if so, why is a new one being sought?

c. Is the prospective client seeking to establish a continuing relationship with the practitioner or asking for one-time-only assistance?

d. Does the client currently own another business?

e. If so, what is the nature of the client's current business?

f. What is the financial history of client's current business?

g. Were there any earlier business ventures, and what resulted from them?

h. With whom does the client bank?

i. What law firm does the client use?

Preliminary Fact-Finding Survey

.02 As an optional initial phase of the engagement, the practitioner may conduct a brief fact-finding survey to better understand the client and the engagement request. This preliminary survey includes an analysis of the client's relevant experience and the information the client has gathered on the proposed new business.

.03 The most critical information to be determined at this point concerns the benefits the client anticipates from the engagement and what the practitioner needs to do to accomplish them. The time devoted to a preliminary survey may be less for an existing client because of the practitioner's familiarity with the client's circumstances.

.04 First, the client and practitioner review, evaluate, and document the client's goals for the new business, and they review the personal and financial implications of ownership for the client. A key issue is whether the goals form a solid basis for the proposed undertaking. Second, the practitioner reviews and documents the information the client has gathered. This information includes data on the nature of the product or service, the demand for the product or service, and the opportunities for market penetration. The practitioner later determines the adequacy of this information.

.05 Next, the practitioner assesses the client's financial resources and management capability to determine if these key components of business success are at a satisfactory level for the proposed venture. Finally, the practitioner reaches a conclusion based on the preliminary survey. The practitioner may recommend that the client (*a*) proceed with the engagement (the formal feasibility study); (*b*) consider an alternative objective, such as acquiring an existing business; or (*c*) abandon the project.

Engagement Understanding

.06 If the engagement is to proceed, the practitioner reaches an oral or written understanding[1] with the client that includes the following information:

- The engagement objectives
- A description of the nature of the services to be performed
- The engagement scope, including any limitations
- The roles and responsibilities of the practitioner and the client
- The engagement work plan, including major tasks and activities, and, if appropriate, the methods to be used
- A schedule of engagement phases
- The methods of engagement reporting
- The fee arrangements

[1] For guidance on writing engagement letters, see section 4/100, "Consulting Services Control and Management."

22/120 CONDUCTING THE ENGAGEMENT

.01 The nature of engagements to assist clients in starting new businesses varies considerably, depending on the individual client's business experience and current circumstances. As indicated earlier, in some cases the practitioner's involvement is in the nature of a consultation rather than an advisory service.[2] Assuming the client requires an advisory service and wants assistance from initial research to actual business start-up, the practitioner might structure an engagement into the following six phases:

a. Data gathering

b. Analysis of information

c. Planning — tax and legal considerations

d. Planning — operational considerations

e. Final report

f. Implementation

.02 The engagement structure used here presents information for the practitioner providing assistance to a client starting a new business. It is not intended to establish a formal structure to be used in all such engagements.

Data Gathering

.03 Practitioners are usually familiar with feasibility studies for clients with established businesses. Such studies are made when a client desires to grow by adding plants, expanding existing facilities, merging with or acquiring other businesses, and starting new product lines or services. Fact-finding for these studies is facilitated by a substantial amount of existing historical, financial, and operating data. Unfortunately, new business feasibility studies generally lack historical information other than industry and government data. Practitioners need to recognize that these engagements require subjective judgments and caution to prevent clients from basing decisions on impulse rather than sound criteria. Detailed fact-finding investigations include examining such matters as management capability and goals, location and facilities, the nature of the industry competition, the products or services, marketing, regulations, and risk factors. These matters, along with others, are discussed in the paragraphs that follow.

.04 **Management Capability.** The management capability of the client is critical to the business's success or failure. Education and training can often prevent incorrect decisions due to lack of information or experience. To assess a client's management ability, the practitioner

[2] For definitions of *consultation* and *engagement*, see section 2/110, "Statement on Standards for Consulting Services."

interviews the owner-manager or management team. Information to be gathered includes (*a*) experience in general business and in the industry to be entered, (*b*) education, (*c*) employment history, and (*d*) time available for the business.

.05 Management Goals. The potential for dissatisfaction and disillusionment can be substantial if the new business does not satisfy the goals of the owner-manager. To reduce the chance of this problem occurring, the practitioner ascertains the personal and business goals of each member of the management team. The practitioner may specifically request comments on capital growth, return on investment, retirement benefits, succession plans, compensation levels, and other goals, as well as time constraints.

.06 Location. Selecting a site for a new business is often one of the client's most critical decisions. Matters to be investigated include local customer demographics, availability of transportation services, pedestrian and vehicular traffic, access to vendor sources, space requirements, zoning regulations, environmental protection requirements, and local ordinances.

.07 Facilities. Selecting appropriate facilities for a new business at the outset avoids the greater expenses associated with making changes after the business is established. Facilities should be able to accommodate anticipated needs, and their repair and maintenance should be cost effective. They should also be purchased at a fair price or leased at a reasonable rate for an appropriate term and insured for fire, theft, or natural disaster.

.08 Industry Overview. Lack of information about the industry can hamper effective decision making. The client and practitioner need to find out as much as possible about the industry for the proposed new business. Pertinent information includes financial data and industry averages on such matters as product cost and profit margins, selling-price ranges, income statement and balance sheet data, number of units produced and sold, location and volume of producers, and industry trends. The facts can be obtained from industry associations, bankers, user groups, credit rating agencies, government publications, local chambers of commerce, trade associations, Robert Morris Associates, Dun & Bradstreet, and other sources.

.09 Products or Services. The most basic information a practitioner studies relates to the product or service the new business will depend on to generate its revenue. The practitioner needs to understand the nature of the product or service, the elasticity of its demand, technological changes that may affect it, its life cycle and potential for obsolescence, and the sources of domestic and foreign raw materials and components.

.10 Competition. The extent of competition and competitors' policies and actions have a significant impact on a client's decision to start a new business. For example, excessively strong competition can prevent a new business from securing an adequate market share. The practitioner needs information about competitors' names, locations, estimated annual volumes, market share, and distribution. From this can follow an assessment of their competitive annual sales, percentage of market served, and distribution capability.

.11 Customer Markets. No new business or industry succeeds unless it has customers who desire its products or services. Information on the current and potential users of the product helps determine which markets to target. Research identifies current and potential end-product consumers, manufacturers, wholesalers, and retailers.

.12 If the proposed business is offering a new product or service, it may be appropriate to conduct a consumer opinion survey or pilot distribution program. Mail or telephone surveys are the most common survey methods. Surveys can indicate potential public acceptance of products or services; however, they are not totally accurate predictors. The practitioner considers the benefits, costs, and time required for a survey or pilot distribution. If a market specialist will be engaged for the survey or pilot distribution, his or her qualifications and experience need to be carefully considered.

.13 **Franchised Businesses.** Although the failure rate for franchised businesses is lower than that for independent operations, there is still significant risk. In helping a client decide whether to purchase a franchise, the practitioner needs to investigate the franchise organization thoroughly. The client and practitioner visit existing franchise holders and evaluate the costs and benefits of the franchise agreement. Franchises need to be evaluated with respect to availability, cost, purchase requirements, financing terms, and commitments to purchase products or supplies from the franchise organization. Practitioners will find additional guidance in section 23/100, "Assessing Franchise Opportunities." Among other sources, the *Franchise Opportunities Handbook* published by the U.S. government also offers valuable information.

.14 **Risk Factors.** In the normal course of operations, some businesses are exposed to more risk than others. This risk factor is important in determining feasibility because of today's increasingly litigious environment. Questions to consider include the following:

a. Can the product be produced or the service rendered with consistent quality?

b. Is there a risk of consumer injury?

c. Are all permits, licenses, and rights obtainable, if required?

d. What business insurance is necessary?

e. Is appropriate insurance available at a reasonable cost?

Analysis of Information

.15 After gathering the detailed information, the practitioner analyzes it by evaluating each category of data and determining whether the more complete findings support the establishment of the proposed business. The practitioner reevaluates initial judgments based on the preliminary survey. If the proposed business is not feasible, the practitioner advises the client prior to the planning and preparation phases of the engagement. To recommend proceeding with the engagement, the practitioner needs to believe the following:

a. The client has the necessary skills or experience to be successful, the financial resources to initiate and operate the business, and adequate time to develop it.

b. The concept of the business is logical.

c. The market can be cost effectively penetrated or created.

Planning — Tax and Legal Considerations

.16 **Selecting the Form of Organization.** A critical decision to make before starting a small business is selecting the best form of organization. There are three basic forms: sole proprietorship, partnership, and corporation (either a regular corporation or an S-corporation). Each has unique tax and legal considerations. A comparison of the benefits of various organizational forms is provided in Table 22-1.

.17 **Sole proprietorship.** A sole proprietorship is the simplest form of operation. It offers ease of formation and termination, minimal organizational costs, and flexibility of operation. No separate tax entity is created; the owner includes the net business income or loss as part of the personal tax return and is taxed at individual rates.

.18 However, sole proprietorship has several disadvantages: (*a*) the owner assumes responsibility and liability for the business; (*b*) the life of the proprietorship is limited to the owner's life; (*c*) outside financing can be more difficult to obtain; and (*d*) employees may not be motivated by a potential for ownership. In addition, certain tax-free fringe benefits and income-deferral techniques are unavailable to a sole proprietorship. Thus, a client generally selects a proprietorship based on ease of business operation as well as on tax considerations.

.19 **Partnership.** When there is to be more than one owner, a partnership is often appropriate. A written partnership agreement provides each partner with an understanding of the other's duties, responsibilities, and rights.

.20 The partnership is a separate and distinct legal entity generally not subject to income tax. Profits and losses of the partnership are passed through to the partners and are included in their individual tax returns.

.21 A partnership has many of the same business advantages as a sole proprietorship, including ease of formation and flexibility of operation. More important, it enables a business to pool skills and raise equity capital through the joint association of owners. Potential ownership by employees and ease of securing financing from external sources are additional partnership advantages.

.22 As with a sole proprietorship, a partnership does not enjoy income deferral or tax-free fringe benefits as a corporation does. Furthermore, it has the same liability and limited-life problems as a sole proprietorship.

.23 **Corporation.** A corporation is a separate legal and taxable entity. It offers limited liability, continuity of existence, simplicity in transferring ownership, centralized management, potential ownership by employees, and ease of capital formation. Corporations are sometimes subject to additional government regulations and supervision, however.

Table 22-1
Comparative Characteristics of Organizational Forms

Characteristic	*Sole Proprietorship*	*Partnership*	*Regular Corporation*	*S-Corporation*
Simplest form	x			
Limited liability		x[1]	x	x
Perpetual existence			x	x
Ease in transferring assets between entity and owner	x	x		
Ease in transferring ownership interest			x	x
Good vehicle for real estate sale	x	x		
Ease in transferring some income to lower tax rate	x	x	x	x
Feasibility of:				
Retirement plan	x	x	x	x
Group medical insurance plan			x	x
Medical reimbursement plan			x	
Group life insurance plan			x	x
Tax accounting methods				
Fiscal year[2]		x	x	x
Cash, accrual, or hybrid	x	x	x	x
Inventory valuation	x	x	x	x
Losses when dissolved deductible as ordinary loss (IRC Sec. 1244)			x	x
Sale of equity interest taxable as capital gains		x[3]	x	x

[1] Limited partners only.

[2] Subject to limitation.

[3] Unrealized income may be taxed at ordinary rates.

.24 For tax reporting, incorporated businesses may be able to adopt a fiscal year schedule to complement their natural business cycle and tax payment schedule. This planning consideration can also have tax benefits for individual shareholders. On the negative side, one problem peculiar to corporations is the double taxation of distributed corporate earnings and profits.

.25 **S-Corporation.** An S-corporation offers corporate legal status but receives tax treatment more like that of a partnership. Since not all states recognize S-corporation status under their corporate income tax provisions, practitioners should be aware of local provisions that could reduce or offset the potential benefits of federal provisions.

.26 Since business needs often change, the form of organization selected at the outset may not continue to serve the client's best interests. For example, a partnership or S-corporation could provide tax advantages in loss years, but a regular corporation might offer advantages when profits remain in the corporation for expansion. Real estate is also an important consideration when selecting the form of business. It is often kept separate from the operating business so that either can be sold separately. If a corporation sold the real estate as an asset divestiture, it might be difficult to get the proceeds to the stockholders without excessive tax cost.

.27 In summary, the final responsibility for selecting the business form rests with the client, after the practitioner and the client's attorney have fully informed the client of the ramifications of each type of organization. These ramifications might include liability considerations, continuity of the business, the possibility of initial losses, and retirement planning.

.28 **Selecting a Bank.** Adequate banking arrangements are important to a business, since unsatisfactory situations can needlessly complicate financial operations. In helping the client select a bank, the practitioner weighs the following for each bank under consideration:

- Financial knowledge of the potential industry
- Access to a broad range of financial resources
- Full-service capability
- Degree of personal service
- Overall understanding of the client's needs
- Authority and ability of personnel to make decisions
- Lending reputation
- Familiarity with the client

.29 Sometimes, financing considerations weigh most heavily in choosing a bank. For example, the client may choose the bank willing to provide the financing on reasonable terms.

.30 **Selecting an Attorney.** Many considerations in selecting a bank also apply to selecting an attorney. The practitioner can help in shaping an important and probably long-term relationship. Factors to consider include personal compatibility, experience, ethics, philosophy, competence, aggressiveness, reputation, fee structure, and availability when needed.

.31 If the client has an established relationship with an attorney, the practitioner usually encourages continuation of that relationship as long as the attorney or his or her firm can provide the services needed. However, it may become necessary to seek an attorney who specializes in the client's industry. References should be checked if neither the client nor practitioner is well acquainted with the attorney or his or her firm.

.32 **Selecting Insurance Agents.** When a client starts a new business, it may be necessary to use several representatives in securing complete insurance protection because individual agents may not provide the full range of protection. Practitioners can assist clients in selecting the appropriate coverage and carrier. Insurance coverage may include property and casualty, liability, business interruption, automobile, officers' or key persons' life, worker's compensation (often provided by a state agency), group life and health, and accident and disability.

.33 **Reviewing Legal Documents.** When assisting a client in reviewing legal documents associated with starting a new business, the practitioner needs to avoid giving legal advice. These documents may include the following:

- Articles of incorporation, bylaws, organizational minutes, and stock certificates
- A franchise agreement
- A partnership agreement
- A retirement plan trust
- Buy-sell agreements (These are agreements between partners and stockholders and the organization that provide for the purchase or sale of ownership interests.)
- Union agreements
- Public offering circulars
- Patents and copyrights
- Bond indentures
- Lease agreements for buildings and equipment
- Mortgage security agreements
- A trade name affidavit

.34 **Meeting Government Regulations.** The client often relies on the practitioner to provide guidance in complying with numerous registration and licensing requirements. Among the many items to consider are the following:

- Federal tax identification number
- State tax identification number
- City/county tax identification number
- Unemployment tax determination filing
- Sales tax licenses
- Public health licenses
- Fire, safety, and zoning restrictions
- Consumer Credit Protection Act
- Special-use permits

Planning—Operational Considerations

.35 **Management Information and Accounting Systems.** Effective decision-making by management depends on appropriate and accurate management information and accounting systems. These systems are designed according to the nature and size of the business, the sophistication of management, and the unique needs of the client. General reports and exception reports are particularly useful since they can be modified to suit any client or situation.

.36 Cost accounting systems should satisfy the needs of the business. At a minimum, they need to separate and analyze fixed and variable costs to provide a basis for forecasting cash needs and determining break-even points.

.37 Almost every business can now afford computerized management information systems, and they are appropriate for many firms. Practitioners can advise clients about computer feasibility, selection of software and hardware, staff training, and follow-up. Some typical applications are for payroll, accounts receivable, accounts payable, inventory control, and general ledger and financial statements. Some clients, of course, may need customized software modifications to solve a unique problem.[3]

[3] For additional information on common business applications, see section 43/100, "Software Package Evaluation and Selection."

.38 **Marketing.** Regardless of the quality of its product or service, a business is not likely to succeed unless the owner carefully considers various aspects of marketing. Most important is determining whether a need for the product or service exists. The owner can usually make this determination by using published industry information, including industry sales forecasts, consumer opinion surveys, or previous personal experience in the industry.

.39 The elasticity of demand, along with the policies of the competition, affect pricing. The client can use low prices to gain market share, set high prices to achieve a greater profit margin, or adopt a mid-price strategy to achieve a combination of market share and profit margin.[4]

.40 The business owner also needs to choose sales methods. Alternatives include sales through catalogs, telephone solicitation, outside representatives, and direct mail. The practitioner can assist the owner in analyzing the cost effectiveness of each method.

.41 Advertising, another vital aspect of marketing, considers the target market, pricing policy, industry norms, and advertising cost. Advertising vehicles include direct mail and ads in the print media (mass market and trade), radio, and television.

.42 **Personnel Policies.** Often the single factor that gives a business its competitive edge is its personnel. For many businesses, therefore, decisions regarding the selection, number, and skills of employees require careful consideration.

.43 Compensation policies are of special concern. Compensation alternatives include salaries, bonuses, commissions, profit sharing, or a combination of these forms. Incentive compensation can be particularly effective in motivating employees. Additionally, employee discounts are often used, or the company's product may be offered to employees at cost or at cost plus operating expenses. Pensions and stock options can also encourage personnel retention.

.44 Hiring consultants and independent contractors rather than permanent employees may be appropriate in some circumstances. It can avoid certain employee costs, such as nonproductive time and fringe benefits. Furthermore, the Tax Equity Finance Retirement Act of 1982 (TEFRA), through its changes in retirement benefits available to owners of small businesses, has inspired the growth of a relatively new industry. The possibilities include leasing individual employees or contracting with an outside firm for an entire staff. For a fee, these outside firms hire a company's employees and pay all their employees and pay all their benefits.

.45 Employee ambivalence is often the cause of morale problems. A policy manual can reduce misunderstandings and assure fair and impartial treatment. Similarly, an employee training program set up before opening for business and maintained on a continuing basis can be instrumental in advising personnel about policy and in developing their skills.

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[4] For further information on pricing, see section 11/100, "Using Budgeting to Price Services" and section 64/100, "Assisting Clients in Determining Pricing for Manufactured Products."

.46 **Plans for Continuity of the Business.** The prospective new business owner needs to consider a plan to preserve the business and its value. This plan may ensure continuation of the business in the event of the owner's retirement or death. For example, it can provide for enough liquidity to assure continued operations. A closely held business is generally a very illiquid asset. A plan can provide for succession of management or ultimate liquidation and sale.

.47 Selling a closely held business is more difficult if the active owner cannot participate in the orderly transfer. A business without its key manager or founder may have a lesser value. On the other hand, a plan can provide a method for establishing a value for redemptions or transfer of equity ownership. Funding this plan needs to be seriously considered.

.48 In addition, the owner needs to consider a qualified plan for retirement early in the course of a new business. Future retirement benefits should be funded as earned.

.49 **Owner Compensation.** Many individuals wish to start their own businesses so that they can enjoy the freedom and perks they believe will become available when they are in control. Practitioners can assist new entrepreneurs in understanding the types of compensation available under different forms of ownership, as well as their costs and tax effects.

.50 A sole proprietor will have tax deductons only for items considered necessary to produce income. Costs in this category include the business-related use of an automobile, entertainment, membership in clubs, and travel. If the business is conducted from the client's residence, under certain circumstances, part of the cost of maintaining that residence may be deducted. Retirement benefits, self-employment taxes, and health and dental insurance can provide some tax benefits under other sections of the tax laws, but these are not considered business-related deductions. Wages paid to family members may not be subject to payroll taxes and can be the basis for covering those individuals under Keogh plans, IRA benefits, and in the case of children, some income-splitting benefits. Generally, fringe benefits available to an individual are also available to a partner.

.51 Corporate operations provide additional benefits to the owners because stockholders can become employees of the corporation. As such, the corporation pays salaries and payroll taxes. The stockholder-employee can receive fringe benefits, such as life insurance, health and dental insurance, disability insurance, medical-cost reimbursement, and retirement benefits on a nondiscriminatory basis. Loans between stockholder-employees and the corporation in either direction must bear interest and be repaid. The limitations and regulations of such transactions are beyond the scope of this practice aid.

.52 **Cash Flow.** Poor cash flow has contributed heavily to many business failures. A business needs cash on demand for fixed requirements, such as rent or mortgage costs, salary, debt payment, and capital improvements. The owner also needs to consider variable costs. Therefore, a cash-needs forecast is very useful.

.53 With the practitioner's help, the owner can establish purchasing policies to help assure a balance between capital required and adequate supplies. Such policies include establishing credit terms with each supplier.

.54 **Inventory Control.** Inventory control is vital to any business involving sales or manufacturing. Methods of control vary according to inventory size, value of each item, and so on. Common methods include age coding of price tags, perpetual inventory control, staple stock, and stock balancing.[5]

.55 Effective inventory policies and procedures allow the client to coordinate customer demand (or shipping schedules) with supplier deliveries. Businesses that maintain proper levels of inventory can operate more economically, but they have related costs for items such as interest expense on the inventory investment, storage space, security, theft losses, product deterioration, insurance, and handling. An important goal of inventory management is to balance these costs of carrying the goods with the efficiency of always having on hand goods purchased at an economic cost.

.56 **Lease Versus Purchase.** An alternative to equity and debt financing of equipment or real estate is leasing. A lease can minimize the initial costs incurred by the business, even though the lease may ultimately cost more than a purchase. Since the property is owned by the lessor, flexibility in its use and renovation may be limited. But, unlike purchased property, leased property provides the business with the ability to return property based on future activities and plans. Lease terms and options can vary significantly, and the client and his or her attorney need to review them to ensure that the requirements and risks are appropriately considered.

.57 A lease-versus-purchase decision considers the needs and debt service requirements for the initial operating equipment and real estate, as well as the working capital needed to finance accounts receivable and inventory during the period of anticipated growth.

.58 **Sources of Financing.** Along with a lack of management skill and an insufficient commitment of time, inappropriate financing and undercapitalization are the most common reasons many new businesses fail.[6] Thus, determining the amount and type of financing ranks as one of the most important activities in starting a new business. The forecast and projections prepared during the engagement provide the practitioner with indications of the client's capitalization and financing needs. Sources of original and continuing financing include equity and debt financing.

.59 *Equity financing.* If the client has the cash necessary to start the business, it may be the best available source. Self-investment eliminates the disadvantages of debt financing, but it may not maximize the rate of return on investment to the owner.

.60 Sale of ownership interests (equity) in the business is another source of financing. The advantages can include—

- Avoiding the regular drain on cash to meet interest payments.

[5] For additional information on inventory control, see section 63/100, "Effective Inventory Management for Small Manufacturers."

[6] For additional information on financing a business, see section 8/100, "Obtaining Funds for a Small Business."

- Avoiding periodic payments on principal.

- Allowing investors to actively assist the client in the business and with prospective customer contacts.

.61 These advantages may be offset somewhat by the disadvantage of giving up a portion of ownership. The client should not enter an ownership agreement without sound professional advice. If financing through equity, the client needs to seek legal counsel regarding national and state security laws.

.62 *Debt financing*. Borrowing is a common means of financing a small business. Working capital may be raised through—

- Personal loans to the client, which may be secured by business or personal assets.

- Loans to the client or the business from family or friends.

- Advances from customers.

- Loans from equipment manufacturers or suppliers.

- Loans from financial institutions.

- Loans from venture capitalists.

- Loans from factor lenders.

.63 Loans from financial institutions may be either long- or short-term and may be made by a bank alone or by government and private agencies whose role is to help small businesses get started. Among such agencies are the Small Business Administration (SBA), the Small Business Investment Corporation, the Minority Business Development Agency (MBDA), local chambers of commerce, and the Minority Enterprise Small Business Investment Corporation (MESBIC).

.64 The client might also consider securing a line of credit, as opposed to term loans. The line of credit allows for borrowing on an as-needed basis and can be coordinated with working capital needs.

.65 **Forecasts and Projections.** Financial forecasts and projections are very important elements of business start-up engagements, since they provide the probabilistic models for future events on which financial and planning decisions will be based. Practitioners prepare projected balance sheets, income statements, and cash flow statements for both short- and long-term periods. Microcomputer-based spreadsheet programs enable practitioners and clients to evaluate a great number of "what if" scenarios in a short time, without great expense. If practitioners provide forecasts or projections, they need to be familiar with AICPA pronouncements on this subject.[7]

.66 Records Retention. One of the questions most frequently asked of practitioners is, "How long should I keep various business records?" There are generally recommended retention periods, based on the year tax returns are actually filed, although some variation may be found among various states. Table 22-2 provides a list of typical retention periods for common business records.

Final Report

.67 The practitioner needs to work closely with the client throughout the preliminary survey, fact-finding, analysis, and planning and preparation phases, assisting the client in reaching decisions at each step. Preliminary communications at these stages can be written or oral.

.68 At the completion of the two planning and preparation phases, the practitioner may want to present a more formal written summary. The final report to the client is a summary of information communicated at various times during the engagement, together with the practitioner's recommendations. If the report is oral, the practitioner may wish to document the conclusions reached and the recommendations made for his or her files. In many cases the final report also contains the implementation plan.

Implementation

.69 The implementation phase of a business life cycle is that critical period of time between completion of the detailed planning and preparation for business operations and the date the business actually begins. It is important to develop a complete and detailed implementation plan for putting this business plan into effect. An implementation plan can be as simple as a checklist of tasks and the time frame for accomplishing them. In preparing the implementation plan, the client, assisted by the practitioner, determines the tasks and the target dates for starting and completing them. Appendix 22 provides an illustrative implementation plan checklist.

.70 A contingency plan is an important adjunct to the implementation plan, since unpredicted events may occur. For example, the client may miss some target dates and may find some tasks impossible to accomplish as planned. A contingency plan allows for timetable slippage and provides alternative means for accomplishing tasks. In effect, it is the implementation plan's "what if" scenario.

[7] Refer to the Statement on Standards for Attestation Engagements on Prospective Financial Information, *Financial Forecasts and Projections* (AICPA, *Professional Standards*, vol. 1, AT sec. 200).

Table 22-2

Illustrative Records-Retention Policy

Number of Years to Retain	*Type of Record*
2 Years	Budgets and cash projection, expired licenses
3 Years	Bank deposit slips, bank statements, bills of lading, cancelled checks (other than for payroll taxes), credit memos, employee expense reports, interim financial statements, freight bills, internal work orders, inventory lists, sales invoices, cash register tapes, purchase invoices and supporting documents (except for permanent assets), petty cash vouchers, production and sales reports, expired bonds and insurance policies, time cards and hourly time reports
4 Years	Payroll tax checks, payroll journals, W-2 and W-4 forms, annual earnings records, payroll tax returns, corporate tax returns
6 Years	Accounts receivable and payable subsidiary ledgers, collection records, cash accounting records, insurance records and reports (accident, fire inspection, group disability, and so on), building and equipment cost records, leases and maintenance records, personnel records
Permanently	Auditor's reports, annual financial statements, general ledgers, cash receipts, disbursements, purchase sales general journals, pension and profit-sharing agreements, actuarial reports, IRS approval letters, corporate charter and bylaws, minutes, stock records, legal agreements, copyrights, patents and trademarks, pension and profit-sharing tax returns, related canceled checks

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Note: The company should establish a records-retention policy consistent with its industry.

.71 Some clients are particularly dependent on the practitioner for recommendations. At this point, the practitioner should urge such clients to become more independent decisionmakers and should confine his or her own role to that of a coordinator-advisor.

22/125 ENGAGEMENT FOLLOW-UP AND ONGOING SUPPORT

.01 The first few months of a business's operations are a crucial time. During the start-up period, operations need to be monitored closely. This is primarily the client's responsibility as the owner and usually the manager of the business. However, the practitioner can play an important role by being available for consultation about events or trends. The practitioner can help the client understand these occurrences and provide advice about taking corrective actions in a timely manner.

.02 The follow-up assistance can take the form of regularly scheduled progress meetings. At these meetings, the client and practitioner review actual versus budgeted financial information, examine key operating data, and discuss other matters.

.03 Once a business has successfully completed its start-up period, the owner may have a natural tendency to become complacent and allow operations to take their course. Such inaction can seriously impair a business. Practitioners can encourage clients to revise and extend business plans, ensure compliance with established policies and procedures, and revise policies and procedures as necessary. The business owner also needs to remain alert to business conditions and developments in the community and industry.

APPENDIX 22

ILLUSTRATIVE IMPLEMENTATION PLAN CHECKLIST

Target Date	*Completion Date*	*Activity*
_____	_____	1. Establish the legal framework for the form of organization chosen, including tax identification numbers, regulatory agency registration, licenses, and so on.
_____	_____	2. Arrange for financing and financial report.
_____	_____	3. Employ and train personnel.
		4. Arrange for the following physical resources:
		Plant and equipment
_____	_____	Site selection
_____	_____	Zoning
_____	_____	Equipment acquisition
_____	_____	Inventory
_____	_____	Operating supplies
_____	_____	5. Develop accounting information systems and procedures, including methods of monitoring.
_____	_____	6. Develop the organizational structure and personnel policies and procedures.
_____	_____	7. Implement the marketing plan, including initial publicity.
_____	_____	8. Arrange for a grand opening.

BIBLIOGRAPHY

Bagozzi, R. P. *Principles of Marketing Management.* Chicago: Science Research Associates, 1986.

Balderston, J. *Improving Office Operations: A Primer for Professionals.* New York: Van Nostrand Reinhold, 1985.

Bates, O. L., and D. C. Eldredge. *Strategy and Policy: Analysis, Formulation and Implementation,* 2d ed. Dubuque, Iowa: William C. Brown, 1984.

Behrenfeld, W. H., and Andrew R. Biebl. *The Accountant's Business Manual.* New York: AICPA, 1987.

Bolt, G. J. *Market and Sales Forecasting Manual.* Englewood Cliffs, N. J.: Prentice-Hall, 1982.

Clark, J. J., T. J. Hindelang, and R. E. Pritchard. *Capital Budgeting. Planning and Control of Capital Expenditures,* 2d ed. Englewood Cliffs, N. J.: Prentice-Hall, 1984.

Del Mar, D. *Operations and Industrial Management.* New York: McGraw-Hill, 1985.

Diamond, S.Z. *Records Management: A Practical Guide.* New York: American Management Association, 1985.

Donnelly, J. H., Jr., J. L. Gibson, and J. M. Ivancevich. *Fundamentals of Management.* 5th ed. Plano, Texas: Business Publications, 1984.

Guide to Record Retention Requirements, Rev. ed. Chicago: Commerce Clearing House, 1986.

Lorange, P., ed. *Implementation of Strategic Planning.* Englewood Cliffs, N. J.: Prentice-Hall, 1982.

McClain, J., and L. J. Thomas. *Operations Management; Production of Goods and Services.* 2d ed. Englewood Cliffs, N.J.: Prentice-Hall, 1985.

Milling, 8. E. *Business Survival: Strategies for an Uncertain Economy.* Radnor, Pa.: Chilton Book Co., 1983.

Porter, M.E. *Competitive Strategy: Techniques for Analyzing Industries and Competitors.* New York: Free Press, 1980.

Pringle, J. J., and R. S. Harris. *Essentials of Managerial Finance.* Glenview, Ill.: Scott, Foresman, 1984.

23/100 ASSESSING FRANCHISE OPPORTUNITIES

CONTENTS

23/100 ASSESSING FRANCHISE OPPORTUNITIES

23/105 INTRODUCTION

.01 Franchised operations now account for approximately one-third of the retail sales in the United States, with more than two thousand franchisors offering opportunities to own a small business. According to *Franchising in the Economy,* a recent study published by the International Trade Administration, franchised businesses accounted for $419 billion in annual sales, with retail franchising amounting to $368 billion. The types of businesses that are franchised are extremely diverse and include dental practices, funeral homes, beauty shops, maid services, and lawn care, as well as fast-food restaurants and automobile dealerships.

.02 As franchised businesses have grown, practitioners' involvement with the owners has also increased. Both franchisees and franchisors seek accounting and tax assistance from practitioners. However, they also commonly request consulting services, such as preparation of business plans, cash flow projections, and loan packages. Many franchised businesses are in high-growth, volatile industries requiring strong management skills, so potential investors can benefit from professional CPA assistance, especially early in the franchise evaluation process.

23/110 SCOPE OF THIS PRACTICE AID

.01 This section of this manual provides practitioners with information to assist clients in evaluating a potential investment in a new or existing franchised business. Practitioners providing this service usually have experience in the industry the client is considering as well as a general knowledge of franchising.

.02 This section will help practitioners to—

- Evaluate a client's suitability to be a franchisee in the specific situation proposed.
- Market this service to clients.
- Structure and formalize an engagement.
- Identify issues deserving investigation and design investigative procedures.
- Develop and report recommendations to clients.
- Recognize opportunities to provide additional services in follow-up engagements.

.03 The forms and reports provided in the appendixes are for illustrative purposes only. Practitioners may wish to adapt these forms and reports to their own methods and experiences. The questions in each section are not all-inclusive and the practitioner may wish to add questions that are specific to the client and the industry under consideration.

.04 An engagement flowchart is provided in exhibit 23A-3 in appendix 23/A. A brief case study, which is provided in appendix 23 B, illustrates the phases of a franchise evaluation engagement and includes a sample engagement letter, a representation letter, and a client report.

.05 This section does not address tax considerations or reporting requirements for a franchised business. For such information, practitioners should refer to appropriate federal and state tax laws and professional accounting pronouncements and literature. This section does not provide legal advice. However, state and federal laws have a significant impact on franchising and, therefore, the client and practitioner need to consult with legal counsel about such laws.

.06 This section should not be interpreted as setting standards or preferred approaches. It includes some information that is in other sections of this manual and is repeated to present the subject clearly.

23/115 ENGAGEMENT ACCEPTANCE CONSIDERATIONS

.01 Before accepting the franchise evaluation engagement, the practitioner obtains the following background information on the client, especially a new one:

- Most recent accountant
- Referral source
- Banking arrangements
- Credit history
- Business objectives
- Law firm
- Previous business experience and education
- Operating results of businesses controlled or managed
- Financial condition
- Experience in the industry under consideration
- Intention of the client to establish a continuing relationship or to obtain one time-only assistance

.02 In deciding whether to accept the new client, the practitioner seeks answers to the following questions:

a. Would accepting the client be in keeping with professional standards and the practitioner's policies?

b. Does the practitioner believe that the benefits of the engagement will be cost effective?

c. Does the practitioner possess the knowledge and competence to successfully complete the engagement?

23/120 ENGAGEMENT UNDERSTANDING

.01 Once the practitioner has accepted the client, it is preferable to confirm the engagement in a written understanding. The statement specifies the objectives and scope of the engagement and the evaluation activities the practitioner will perform. Clearly delineating scope is desirable because it varies greatly among franchise evaluation engagements.[1] It is also desirable to outline the specific steps the practitioner will take, the areas of investigation, and the form of the report—oral or written. An example of an engagement letter appears in the case study in appendix 23/B. In such a letter, practitioners may want to add information about tax or other services.

.02 In the statement, the practitioner also does not guarantee any specific engagement results that the client may be seeking. The practitioner clearly states the fee (or the manner of computing it), spells out the payment terms, and stipulates that the fee does not depend on the engagement's outcome.

23/125 ENGAGEMENT OBJECTIVES AND BENEFITS

.01 The objectives of the franchise evaluation engagement are to do the following:

- Evaluate the franchisor.
- Evaluate the particular franchise, including its location.
- Evaluate the client.
- Determine whether the client and the franchise fit each other.
- Evaluate alternative franchises (optional).

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[1] For example, one engagement may require only a simple consultation based on the practitioner's knowledge of the situation and the particular franchise organizations. Another engagement may require considerable research and effort, including client assistance in investigating franchisors, preparing necessary documents, and implementing accepted recommendations. The Statement on Standards for Consulting Services (SSCS) No. 1, *Consulting Services: Definitions and Standards* (AICPA, *Professional Standards*, vol. 1, CS sec. 100) defines consultations and other consulting services. The actual extent and nature of each engagement will depend largely on the client's capability and willingness to assist the practitioner.

.02 The engagement has the following benefits:

- The client can select a franchise investment that is consistent with a desired risk level.
- The client who plans to operate the unit personally can select a franchise that is consistent with his or her management experience and ability.
- The client acquires management tools, such as financial projections, that can be valuable in operating the franchise business.
- The client can determine the minimum capital required to purchase and operate the franchise.
- The client can compare the return on investment of alternative franchise opportunities, if they exist.

23/130 NATURE OF THE ENGAGEMENT

.01 A consulting service to assist in franchise selection differs from most consulting services because the practitioner's concern is with the client's potential business investment rather than a current operation. A further contrast is the significant impact of a third party, the franchisor, on the practitioner's recommendations and the client's decision. This type of consulting service is classified as a *transaction service.*

.02 Franchised businesses vary greatly in quality, complexity, and potential. Similarly, franchisors vary greatly in their financial stability, management ability, ethics, and the overall quality of assistance they provide to their franchisees. One frequent criticism of franchisors is that they screen prospective franchisees poorly. Practitioners can provide very valuable services to a potential franchisee by taking a critical, independent look at the franchisee, the franchisor, and the intended business. However, the client needs to be involved throughout the engagement by providing essential personal, business, financial, and franchisor information and by deciding what actions to take during the engagement.

.03 Franchise evaluation engagements may originate as requests from new or existing clients who wish to own a business for the first time, sell their current business and acquire a franchise, or acquire a franchise as an additional business. Engagements may also result from a practitioner's recommendation that a potential or existing client consider purchasing a franchise. Practitioners can inform clients about the diversity of franchise opportunities and explain how CPA firm services can be helpful in evaluating them. Practitioners may also wish to reach potential clients by contacting trade associations or other organizations.

23/135 CONDUCTING THE ENGAGEMENT

Fact-Finding and Document Collection

.01 The practitioner's role in assisting with franchise selection is heavily oriented toward gathering and analyzing pertinent information. In gathering information, the practitioner might ask the client to provide the following (or ask the franchisor, if the client cannot comply with the request):

.02 Client Information and Materials

- *A letter signed by the client, authorizing the practitioner to request information from franchisors on the client's behalf.* Client authorization usually facilitates franchisor cooperation.

- *The business and financial background of the client.* The practitioner uses this business information to evaluate the client's ability to operate and finance the proposed investment.

.03 Financial Information and Requirements of Franchisor and Franchisee

- *Franchisor's financial statements.* The practitioner uses financial statements in evaluating the historical success of the company and its ability to support its franchise offerings.

- *Financial statements of several representative franchisees.* The information in representative franchise statements may establish the profitability of similar franchises and provide some benchmarks for future evaluation of the client's operating results.

- *Financial requirements of the proposed franchise.* Information about financial requirements is essential in determining whether the client has sufficient financial resources to meet the purchase terms.

- *Financial projections for the proposed franchise.*[2] The projections should support any claims of sales volume and profitability the franchisor makes. If a projection is unavailable, the practitioner can assist the client in preparing one.

.04 Franchisor Support

- *Summary of training assistance.* Many franchises involve new business experiences for investors. The practitioner reviews the summary to determine whether the franchisor offers sufficient training to franchisees and their essential staff.

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[2] See Statement on Standards for Accountants' Services on Prospective Financial Statements, *Financial Forecasts and Projections* (AICPA, *Professional Standards*, vol. 1, AT sec. 200) and the *Guide for Prospective Financial Statements* (New York: AICPA, 1986).

- *Summary of advertising and promotion program.* The practitioner needs to assess the extent of the franchisor's commitment to promotional support. The practitioner ascertains whether the commitment includes local, as well as national, advertising and whether mandatory advertising fees and the payment terms are appropriate.

.05 Franchisor Documentation

- *Legal documents*, including the franchise agreement and any related leases. Legal agreements are essential to fully understand the franchise proposition.

- *Franchise offering circular.* The practitioner reviews the circular to determine whether the claimed terms and benefits agree with the other documents and facts.

- *Regulatory registration documents.* The practitioner examines any detailed government filings to determine if they either support or conflict with other claims by the franchisor. Disclosure statements are a key source of information, often revealing problem areas. The Federal Trade Commission's franchise rule (16 CFR Part 436) requires franchisors to provide a disclosure statement to franchisees. In addition, many states[3] require a uniform franchise offering circular (UFOC). These statements and circulars contain such detailed information on important subjects as the following:

    - The names of the franchisor and its affiliates, including officers and directors
    - Lawsuits and bankruptcy history
    - Initial and continuing franchise payments
    - A description of the goods and services the franchise unit sells
    - Franchisor assistance
    - Franchise statistics
    - Franchise restrictions

Information Evaluation

.06 In gathering facts, the practitioner generally conducts several interviews with appropriate parties to obtain relevant data. Appendix 23/A provides a checklist that may be useful in a franchise investigation. The practitioner can adapt the checklist to fit the specific requirements of a particular engagement.

[3] The states are California, Hawaii, Illinois, Indiana, Maryland, Michigan, New York, North Dakota, Oregon, Rhode Island, South Dakota, Virginia, Washington, and Wisconsin.

.07 To help the client make an informed decision about a particular franchise, the practitioner considers the amount and quality of data available on franchisor and franchisee stability, contract conditions, cost, financing, and restrictions. Exhibit 23A-1 in appendix 23/A provides a sample checklist to aid the practitioner in evaluating the quality and quantity of available data. The practitioner can also use the form to compare alternative franchise organizations.

Visits

.08 It is desirable for the practitioner to inspect the proposed franchise location if the client has selected or designated one. Such an observation may yield important information. In addition, discussions with several existing or former franchisees and with one or two competing franchisees (or a similar franchisor, if nearby) may provide comparative information and candid comments about the franchise and the franchisor.

.09 A visit to the franchisor's offices, if the client authorizes it, provides an opportunity to obtain additional information and develop impressions of the franchisor. If a visit is not possible, the practitioner may develop a list of questions for the franchisor and ask the client to seek responses. The checklist provided in exhibit 23A-2 in appendix 23/A includes some appropriate questions.

Evaluation of the Client

.10 Even though the client has retained the practitioner for the primary purpose of studying one or more specific potential franchise investments, the client will gain an important benefit if the engagement includes evaluating the client's suitability for the proposed investment. There are at least two reasons for client evaluation. First, the client may have little business acumen and experience or may have held only executive positions and therefore may lack the skills needed to operate a small franchise. Second, many franchisors have little concern for the franchisee's qualifications. The client will probably appreciate appropriate comments about personal qualifications.

Recommendations to the Client

.11 The practitioner may need to review recommendations with the client before submitting the final report. If it appears the client will proceed with the franchise investment, the practitioner can begin accumulating suggestions about the form of the proposed operation and related tax implications. At this point the client's legal counsel should review the various documents.

Final Report

.12 A franchise evaluation engagement usually concludes with a written communication of the following information:

- A profile of the selected franchise industry, including growth potential and competitive environment
- An evaluation of the franchise and franchisor
- The client's strengths and weaknesses as they relate to operating the prospective franchised business
- A recommendation for franchise selection, if appropriate

.13 The practitioner evaluates the accumulated information, develops prospective financial information, drafts a preliminary report, and then schedules a meeting to review the draft with the client. At the meeting, the practitioner obtains any additional information from the client to complete or revise the report. The client may ask for additional information or clarification and the practitioner can at this time suggest any possible expansion of the engagement. After this meeting, the practitioner prepares a final report and delivers it to the client.

23/140 OPTIONAL ENGAGEMENT ACTIVITIES

.01 The client may request, or the practitioner may recommend, comparing the proposed franchise with similar franchises to determine the reasonableness of the information provided by the franchisor. This comparison may include analyzing fees, training practices, existing franchise failure ratios, and other items.

.02 The client may also ask the practitioner to expand the engagement to include additional comprehensive studies of similar franchises if the client hasn't decided whether to purchase the initial selection or has rejected it. This additional service might be a complete study or partial study, depending on the applicability of the information gathered for the first franchise evaluation.

23/145 FOLLOW-UP ENGAGEMENTS

.01 Postengagement assistance to the client may include the following activities:

- Reformatting the prospective financial information so that it will be appropriate for use by a potential financing source
- Negotiating financing with credit institutions
- Negotiating with franchisors
- Conducting further study of items mentioned in the final report
- Assisting in evaluating alternative or additional sites
- Providing tax planning

- Analyzing lease-versus-purchase options
- Setting up the operation and providing ongoing accounting and tax services

APPENDIX 23/A

ILLUSTRATIVE FORMS AND CHARTS

The following forms and charts are provided for illustrative purposes. Practitioners can adapt the sample evaluation form (exhibit 23A-1) and the sample checklist to particular engagements.

Exhibit 23A-1

Sample Evaluation Form for Franchise Information

Client ______________________ Date ______________________

Franchise Title ______________________

Franchise Unit Address ______________________

____

Instructions: Place a check in the box to the right of each item that best describes the franchisor information provided, and record the value for each response (0–3 points) in the Total Score column. The higher the grand total, the better the overall information the franchisor organization has provided.

	Quality and Quantity Points				
	0	1	2	3	
	Not Given	Vague and Incomplete	Some Detail	Highly Detailed and Complete	Total Score
Years in existence					
Balance sheet					
Profit-and-loss statement					
Franchisee failure rate					
Franchisee turnover rate					
List of franchisees					
Contract conditions					
Renewal					
Transfer					
Termination					
Cancellation					
Market protection					
New lines by same franchisor					
Territory					
Sales by unauthorized dealers and franchisor enforcement					
Officers' and directors' experience					
Litigation history					
Bankruptcy history					
Costs					
Start-up					
Service-consulting fees					
Training					
Renewal fees					
Royalties					
Advertising					
Penalties					
Insurance					
Financing					
Franchisor					
Other (SBA, SBIC, lessor, banks)*					
Celebrity/public figure involvement					
Mandated attendance at meetings, exhibits					
Detailed services provided					
Restrictions					
Other franchise business					
Major shareholder business					
Merchandise vendors					
Advertisers					
Required mail residence					
Lease					
Leasehold improvements					
Excess royalty fee					
Member, International Franchise Association					
Compliance: State UFOC disclosures†					
Compliance: FTC disclosures**					
Total per category					
Grand total					

*SBA= Small Business Administration; SBIC= Small Business Investment Corporation; †UFOC= Uniform Franchise Offering Circular; **FTC= Federal Trade Commission.

Exhibit 23A-2

Sample Checklist for Conducting an Engagement to Assess Franchising Opportunities

General Information

1. Is the franchise in a growing industry, or has the industry reached a plateau?
2. Does the franchisor have a strong position in the industry?

Review of Franchisor Financial Information

3. Are the financial statements audited?
4. How do current financial statements compare with those of the last three years?
5. Does the franchisor depend on just one or two major franchisees?
6. Does the balance sheet indicate financial stability and strength?
7. Is the operation profitable?
8. Is the cash flow positive?
9. Is there any indication that the franchisor overcharges franchisees?
10. Does the franchisor appear to be overly dependent on the sale of new franchises?

History and Management of the Franchisor

11. How old is the company?
12. Do the franchisor, its management, and its products have a good reputation?
13. Does the top management have experience in other companies in the same or a similar field?

Other Franchisor Information

14. Does the company provide the required Federal Trade Commission offering circular?
15. Does the offering circular indicate troublesome litigation?
16. What has been the dropout or failure rate of franchisees? (Obtain names and addresses of several former franchisees to learn directly of their experience.)

Franchise Profitability

17. Are current financial statements of similar franchises and an "average" one available? (Compare these documents to projected financial statements furnished by the franchisor. Study or prepare a modified projection, if appropriate.)

Financial Requirements

18. Are the investment and other start-up costs clearly spelled out and reasonable?
19. Is the return on investment adequate?
20. Are ongoing franchise fees and other charges reasonable?

21. What financing is available?

Location

22. Is the proposed location a good one? (Consider traffic access, visibility, and so on.)
23. Is the location zoned properly?
24. Are alternative locations available?
25. Does the franchisor have market studies to support the selection?
26. Does the franchisor provide facility design and layout?
27. How successful have other franchisees been in similar locations?
28. Is there any danger of saturation in that area?
29. If the franchise agreement does not specify the location, will the franchisor refund any deposits if the client later rejects a proposed location?
30. Are the lease terms reasonable?

Legal Agreements

31. Does the agreement offer the opportunity to acquire other locations or an area franchise?
32. Is there an equitable method of surrendering the franchise?
33. Are there reasonable provisions for reselling the business?
34. What type of exclusivity (territorial or other) does the franchisor offer?
35. Is the franchise term sufficiently long, or does it provide reasonable renewal options?
36. What restrictions apply to the purchase of supplies and services?
37. Does the franchisor provide restricted products in an efficient manner?
38. What restrictions are there on other franchisee activities?
39. Are the franchisor's cancellation clauses reasonable?

Other Benefits and Miscellaneous Matters

40. What initial training does the franchisor offer?
41. What follow-up training is available?
42. Is the local advertising program cost effective in relation to the advertising charges the franchisee pays?
43. Does the franchisor provide a good accounting system?
44. Does the franchisor provide comprehensive operating manuals?
45. What regular financial information does the franchisor require?
46. Does the franchisee have the option to invest in or acquire the real estate?
47. What tax benefits does the franchise offer?

Contacting Present and Former Franchisees

48. Will the franchisor cooperate in permitting open discussions with several existing and former franchisees? (If yes, obtain client permission to interview them in person or by telephone.)
49. Are franchisees' comments generally favorable and consistent?
50. Does any major weakness exist, according to the former franchisees?

Comparative Review of Franchise Terms

51. How do the terms of the franchise unit under consideration compare with other units in the franchise organization?
52. How do the terms compare with those other franchisors offer?

Client Information

53. Does the client have any business background?
54. Has the client ever operated a business?
55. Will the client be a passive or an active owner?
56. Does the client have adequate funds for both capital and operating needs?
57. Will other client interests leave time for sufficient involvement in the proposed venture?
58. Are the client's management skills compatible with the needs of the franchise?

Exhibit 23A-3

Flowchart of a Typical Engagement To Assess Franchise Opportunities

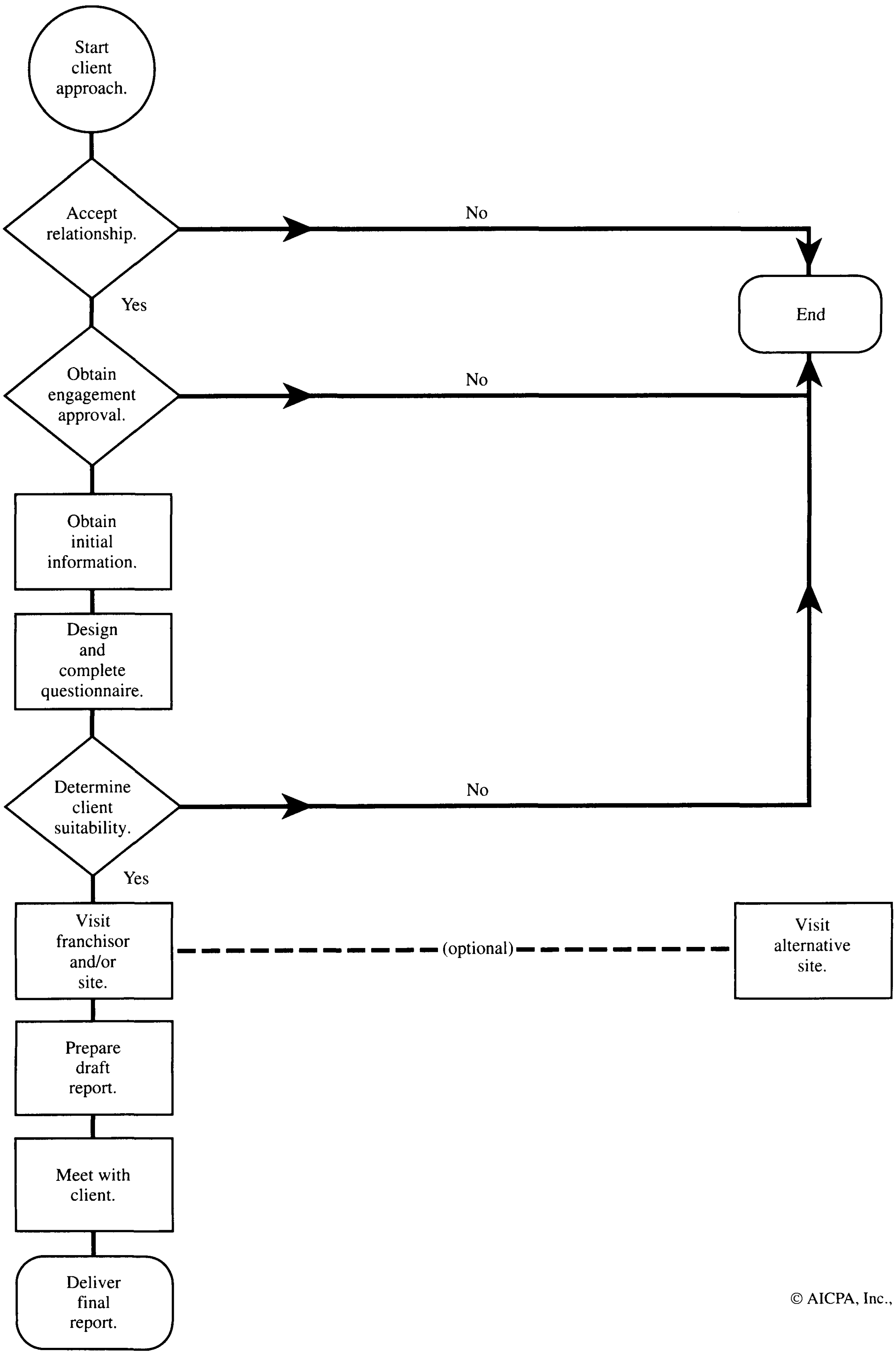

Exhibit 23A-4

Questionnaire for Evaluating a Franchise

The Franchisor

1. What is the franchisor's name, address, and telephone number?

____
____
____

2. Have the name and trademark of the franchise been registered legally?
Yes ☐ No ☐
Explanation: ____
____
____

3. Does the franchisor have a solid business reputation and credit rating?
Yes ☐ No ☐
Explanation: ____
____
____

4. What are the names, addresses, and telephone numbers of three of the franchisor's business references?

____
____
____

5. Did the franchisor ever declare bankruptcy personally or in business ventures not disclosed in the Uniform Franchise Offer Circular (UFOC)?
Yes ☐ No ☐
Explanation: ____
____
____

6. What is the franchisor's position in the industry?

____
____
____

7. How long has the franchisor been in operation?

____
____
____

8. Were there any predecessor companies? If so, what are their names and why are they no longer in business? Yes ☐ No ☐
Explanation:____

9. Has the franchisor a reputation for honesty and fair dealing among those who currently hold a franchise? Yes ☐ No ☐
Explanation:____

10. Has the franchisor ever been sued or prosecuted for criminal activities?
Yes ☐ No ☐
Explanation:____

11. How often are audits of the franchisor conducted?
____

12. Will the franchisor assist the franchisee with financing?
Yes ☐ No ☐
Explanation:____

13. Is the franchisor adequately financed so that it can carry out its stated plan of financial assistance and expansion? Yes ☐ No ☐
Explanation:____

14. Were the UFOC and financial statements submitted by the franchisor in time for analysis?
Yes ☐ No ☐
Explanation:____

15. Does the franchisor carry product/service liability insurance?
Yes ☐ No ☐
Explanation:____

16. Under the laws of which state is the franchise agreement regulated?

17. Is the franchisor a one person company or a corporation with an experienced management trained in depth? Yes ☐ No ☐
Explanation:

18. Have any of the franchises failed? What were the reasons?
Yes ☐ No ☐
Explanation:

19. Exactly what can the franchisor do for the client that the client cannot do for itself?

20. What are the industry's prospects for current and long-term growth in the franchisor's industry?

The Product or Service

21. Is the product or service currently available?
Yes ☐ No ☐
Explanation:

22. How long has it been on the market?

23. In what states, cities, and stores is it sold?

24. Is it priced competitively?
Yes ☐ No ☐
Explanation: ______________________________

25. Is it packaged attractively?
Yes ☐ No ☐
Explanation: ______________________________

26. How does it stand up in use?
____

27. Is it a one shot or a repeat item?
Explanation: ______________________________

28. Is it easy and safe to use?
Yes ☐ No ☐
Explanation: ______________________________

29. Is it a staple, a fad, or a luxury item?
Explanation: ______________________________

30. Is it an all-year seller or a seasonal one?
____

31. Is it patented?
Yes ☐ No ☐
Explanation: ______________________________

32. Does the franchisor manufacture it or merely distribute it?

____

____

____

33. Does the product or service comply with all applicable laws?
Yes ☐ No ☐
Explanation:__________________________________

____

____

34. How well does it sell elsewhere?

____

____

____

35. Five years from now, will the demand for the product or service be greater, about the same, or less?

____

____

____

36. Is the product manufactured under quality standards?
Yes ☐ No ☐
Explanation:__________________________________

____

____

37. Must the product or its materials be purchased exclusively from the franchisor or a designated supplier?

____

____

38. Are the prices competitive?
Yes ☐ No ☐
Explanation:__________________________________

____

____

The Territory

39. Has the franchise company many available locations?
Yes ☐ No ☐
Explanation:__________________________________

____

____

40. Is the territory completely, accurately, and understandably defined?
Yes ☐ No ☐
Explanation:______________________________
____
____

41. Is "exclusive representation" clearly spelled out and protected?
Yes ☐ No ☐
Explanation:______________________________
____
____

42. Does the franchisor provide site selection services and at what cost?
Yes ☐ No ☐
Explanation:______________________________
____
____

43. Does the franchisor guarantee a new holder against any infringement of territorial rights? For how long?
Yes ☐ No ☐
Explanation:______________________________
____
____

44. Is the territory large enough to provide an adequate sales potential?
Yes ☐ No ☐
Explanation:______________________________
____
____

45. Is the territory's per capita income above or below average?
Yes ☐ No ☐
Explanation: ______________________________
____
____

46. Is the territory's population increasing or decreasing?
____
____
____

47. Are competing businesses well entrenched in the territory?
Yes ☐ No ☐
Explanation:______________________________
____
____

48. Has the franchisor previously had a franchise in the territory?
Yes ☐ No ☐
Explanation:____

49. How are franchise locations settled on?

The Franchise Agreement

Contract

50. What is the duration of the contract? Can it be renewed?

51. Under what conditions can a franchisee forfeit the franchise?

52. Can a franchisor engage in other business activities?
Yes ☐ No ☐
Explanation:____

53. Are there restrictions on selling the franchise after purchase?
Yes ☐ No ☐
Explanation:____

54. What is the duration of the agreement? How often is it renewable?

55. Can the franchise agreement be terminated by the franchisee?
Yes ☐ No ☐
Explanation:______________________________

56. Under what conditions can an agreement be terminated by the franchisor?

57. Are franchisees subject to inspections and evaluation by the franchisor?
Yes ☐ No ☐
Explanation:______________________________

58. Has the franchise set a deadline for the franchisee to begin operations?
Yes ☐ No ☐
Explanation:______________________________

59. What happens if the deadline is missed?

60. Is the franchisee required to actively manage the franchise?
Yes ☐ No ☐
Explanation:______________________________

61. Will the franchisor buy back the franchise if the franchisee dies or is disabled?
Yes ☐ No ☐
Explanation:______________________________

62. Are there restrictions on the form of entity to be established? If not, what are the restrictions?
Yes ☐ No ☐
Explanation:______________________________

63. Is the franchisee clearly exempt from any responsibility for debts, liabilities, or taxes of the franchisor?
Yes ☐ No ☐
Explanation:____

64. Is the franchisee required to have an audit of its financial statements?
Yes ☐ No ☐
Explanation:____

65. Who is responsible for the fee?

Franchise Fee

66. Are full or partial refunds of the franchise fee provided to franchisees who wish to back out of the agreement? Yes ☐ No ☐
Explanation:____

67. How is the franchise fee computed?

68. Is the franchise fee appropriate for the value received?
Yes ☐ No ☐
Explanation:____

Advertising

69. Does or will the franchisor advertise in the territory?
Yes ☐ No ☐
Explanation:____

70. Can the franchise use local media for advertising if broader media is effective? Are there any restrictions?
Yes ☐ No ☐
Explanation:__________

71. Does the franchise contribute to the cost of advertising? How often?
Yes ☐ No ☐
Explanation:__________

72. If yes, how is the cost for advertising computed?

Training

73. Is the initial training sufficient to enable the franchisee to operate the business?
Yes ☐ No ☐
Explanation:__________

74. Does the franchisor provide continuing education?
Yes ☐ No ☐
Explanation:__________

75. Is a manual or similar study guide available?
Yes ☐ No ☐
Explanation:__________

76. Does the manual address all key subjects?
Yes ☐ No ☐
Explanation:__________

Continuing Assistance

77. Does the franchisor have a hot-line or other means to resolve franchisee problems?
Yes ☐ No ☐
Explanation:____

78. Does the franchisor conduct advertising and marketing surveys?
Yes ☐ No ☐
Explanation:____

79. Does the franchisor assist with modifications to store layout, design, and display?
Yes ☐ No ☐
Explanation:____

The Franchisee

80. What are the financial and personal goals of the franchisee?

81. Does the franchisee have adequate financial resources to purchase and operate the franchise?
Yes ☐ No ☐
Explanation:____

82. Does the franchisee have the appropriate work ethic and temperament to operate a business?
Yes ☐ No ☐
Explanation:____

83. Does the franchisee have experience in the industry? Did it include management experience?
Yes ☐ No ☐
Explanation:____

84. Has the franchisee managed or owned a business before? If so, was it successful?
Yes ☐ No ☐
Explanation:__________

85. Is the franchisee willing to allow the franchisor to have some control over the business?
Yes ☐ No ☐
Explanation:__________

86. Is the franchisee physically and mentally capable of operating the franchise vigorously?
Yes ☐ No ☐
Explanation:__________

87. Do the selected industry and the franchisee's business background match?
Yes ☐ No ☐
Explanation:__________

88. Does the franchisee have the leadership, communications, and analytical skills necessary to succeed with the franchise?
Yes ☐ No ☐
Explanation:__________

89. Will the client be able to make and enforce difficult decisions?
Yes ☐ No ☐
Explanation:__________

90. Is the franchisee prepared to accept a reasonable business risk?
Yes ☐ No ☐
Explanation:__________

Exhibit 23A-5

Questionnaire for Evaluating the Feasibility of Franchising a Business

1. Does the client currently own a profitable business? ☐ Yes ☐ No
   Explanation:____

2. Does the client have an established set of operating procedures? ☐ Yes ☐ No
   Explanation:____

3. Does the client desire to expand the business? ☐ Yes ☐ No
   Explanation: ____

4. Can the client's business processes be readily systematized and broken into its essential components?
   ☐ Yes ☐ No
   Explanation: ____

5. Is the business in a loosely organized industry, characterized by a great many small mom-and-pop businesses? ☐ Yes ☐ No
   Explanation: ____

6. Is the industry lacking a significant number of large franchises or franchises owned by conglomerates? ☐ Yes ☐ No
   Explanation: ____

7. Is the business in the service sector of the economy? ☐ Yes ☐ No
   Explanation: ____

8. Is the business in an established market? ☐ Yes ☐ No
   Explanation: ____
   ____
   ____

9. Is the client's product well known in the marketplace?
   ☐ Yes ☐ No
   Explanation: ____
   ____
   ____

10. Is there a public demand for the service or product?
    ☐ Yes ☐ No
    Explanation: ____
    ____
    ____

11. Is the business relatively simple to operate? Can the business be learned quickly and easily by other business people? ☐ Yes ☐ No
    Explanation: ____
    ____
    ____

12. Does the business generate enough revenue for both the franchisee and franchisor to share in the wealth?
    ☐ Yes ☐ No
    Explanation: ____
    ____
    ____

13. Can the business be duplicated easily at a reasonable cost?
    ☐ Yes ☐ No
    Explanation: ____
    ____
    ____

14. Can the business be duplicated at several locations? Could the concept work in markets nationwide?
    ☐ Yes ☐ No
    Explanation: ____
    ____
    ____

15. Can the business be operated on a modest inventory?
☐ Yes ☐ No
Explanation: ____
____
____

16. Is the business based on a trend rather than a fad?
☐ Yes ☐ No
Explanation: ____
____
____

17. Could the business break even in a year or less?
☐ Yes ☐ No
Explanation: ____
____
____

18. Could the business generate enough revenue to attract potential franchisees? Would a reasonable person be happy working for the return the business could provide?
☐ Yes ☐ No
Explanation:____
____
____

19. Does the business offer something new or improved? A better product or service?
☐ Yes ☐ No
Explanation: ____
____
____

20. Does the product or service generate interest on its own?
☐ Yes ☐ No
Explanation: ____
____
____

21. Has the client ever been approached by someone interested in buying the business as a franchise?
☐ Yes ☐ No
Explanation: ____
____
____

22. Is the business prepared to enter long-term business relationships with independent operators?
☐ Yes ☐ No
Explanation: ____________________
____
____

23. Can the client offer franchisees training, advice, other support services, and administer a network of independent businesses? ☐ Yes ☐ No
Explanation: ____________________
____
____

24. Is the client capable of handling a more complex and expanded regional or national franchising operation? ☐ Yes ☐ No
Explanation: ____________________
____
____

25. Can the business afford to invest in a franchise program?
☐ Yes ☐ No
Explanation: ____________________
____
____

APPENDIX 23/B

CASE STUDY: ASSESSING THE ACME FAST FOOD FRANCHISE

Background Information

John Trion, a partner in the firm of Smith & Trion, CPAs, receives a call from Jeff Willard, a potential new client. Willard, who was referred by a banker, indicates that he is seriously considering acquiring an Acme Fast Food franchise in a neighboring town and wishes an appointment. They agree to meet the next day.

At the meeting, Trion asks Willard about his professional background and financial resources. He learns that Willard operated a full-service restaurant in the suburbs, which he recently sold at a profit. He appears knowledgeable about the food industry. He also appears to have the financial resources to buy a franchise.

Trion also asks Willard for all the data he has obtained so far about the franchisor, Acme Fast Food International, Inc. The meeting concludes with Willard's agreeing to sign an engagement letter (exhibit 23B-1). Trion will inform the franchisor that his firm has been retained to conduct a franchise evaluation engagement.

The Engagement

Trion drafts an overall work plan and decides to use a fact-finding approach (using forms and checklists similar to those provided in appendix 23 A). He learns that Acme Fast Food International, Inc., has a regional office in the city and arranges to visit it. Lionel Rhodes, the local district manager, meets with him and provides him with a comprehensive package that includes—

- The franchise offering circular, as required by the Federal Trade Commission.
- Acme's financial statements.
- A franchise information brochure.
- A letter outlining details about the proposed location.

Rhodes cooperates fully and goes through the detailed checklist with Trion. Rhodes provides all the information Trion requests, including the names and telephone numbers of all existing and two former franchisees located in the area.

Reviewing the Questionnaire and Material

Trion reads through the material he has received and learns that Acme Fast Food International, Inc. is a strong company and that its franchises are growing in number and have been very successful. The offering circular provides detailed information about Acme's management and the typical financial requirements. The circular includes sample legal agreements required of all franchisees and details on operating conditions and restrictions. The material also presents schedules listing financial requirements and typical operating costs.

Holding Discussions With Franchisees

Trion decides to save time by telephoning two existing and two former franchisees. Both existing franchisees describe their operations as being well managed and indicate a generally good relationship with Acme Fast Food. They indicate that long hours and hard work are essential to successfully operate the franchise.

The two former franchisees are initially reluctant to speak but finally explain why they sold out. Their reasons for reselling differ. The first became ill and could not continue to operate the franchise. The second franchisee underestimated the total work obligation and preferred another business that put fewer demands on his time.

Evaluating the Proposed Location

Trion drives to Wilson Street, the location of the available franchise, Good Food, Inc., doing business as Acme Fast Food, Inc. He observes that it is at the corner of two heavily traveled streets. The location is in a growing middle-class neighborhood and appears to be ideal for a fast-food restaurant. Trion does not evaluate the demographics of the proposed location because Jones & Company has already conducted a demographic and marketing study of the area. (See section 6 in exhibit 23B-3, "Summary of Significant Assumptions . . . ".)

Concluding the Engagement

Trion speaks to Jeff Willard several times as he proceeds. His client advises Trion that he need not take the time to gather information about a competing franchise. Trion prepares his final report and invites Willard to his office for a meeting.

Trion describes his procedures to his client and relates the pros and cons of the proposed investment. He also says he likes the fact that his client is familiar with the industry that he may be re-entering, although the new place is a fast food operation not a restaurant, as before.

Trion has previously received financial information from both Willard and the franchisor. Using the franchisor's data, Trion prepared comprehensive prospective financial statements[4] and discusses them with Willard. Trion also notes that he likes the franchise site. Willard concludes that he will pursue the investment, and the meeting ends.

---

[4] See *Guide for Prospective Financial Statements* (New York: AICPA, 1986).

Exhibit 23B-1

Sample Engagement Letter

Smith & Trion, CPAs
1123 Main Street
Anytown, California 95845

May 6, 19XX

Mr. Jeff Willard
3445 First Street
Anytown, California 95845

Dear Mr. Willard:

This letter confirms our arrangements to evaluate your proposed franchise investment in an Acme Fast Food outlet located in Nexttown, California.

The objectives of our evaluation are to—

1. Investigate the strengths and weaknesses of the Acme Fast Food International franchisor organization and the selected franchise.
2. Provide you with our comments about your suitability for this type of investment. Later, we will decide together whether to obtain information about competing franchises and prepare a comparative study.

We presume you will seek third-party financing if you decide to purchase the franchise. Therefore, in accordance with standards established by the American Institute of Certified Public Accountants, we will use information you[5] provide to compile projected balance sheets, statements of income and changes in cash position, and related summaries of significant assumptions and accounting policies of Good Food, Inc., d/b/a Acme Fast Food, Inc., as of December 31, 19XX, and December 31, 19XY. We will compile our report from information you provide, including assumptions about conditions you expect to exist and actions you expect to take during the projection period, assuming the business is operated. We will not express any form of assurance about the achievability of the projection or about the reasonableness of the underlying assumptions.

We will base our evaluation on information that you and the franchisor provide, as well as information we are able to obtain concerning competitor franchisors. Our report to you will be in writing and will be delivered no later than June 15, 19XX. We have no responsibility to update our report to take account of circumstances occurring after the date of the report.

---

[5] Throughout this appendix, the word *you* refers to management as defined in the Statement on Standards for Accountants' Services on Prospective Financial Statements, *Financial Forecasts and Projections* (New York: AICPA, 1985).

We do not guarantee that our evaluation will produce the results you are seeking, and our fee is not contingent on the results in any manner. Our billings are based on our standard hourly rates plus out-of-pocket expenses.

You should anticipate that there will usually be differences between projected and actual results, even if the business is operated, and that those differences may be material because events and circumstances frequently do not occur as expected. Our report will contain a statement to that effect.

You are responsible for representations about plans and expectations and for disclosure of significant information that might affect the ultimate realization of the projected results. Therefore, at the conclusion of the engagement, you agree to supply us with a representation letter, which, among other things, will confirm your responsibility for the underlying assumptions and the appropriateness of the financial projection and its presentation.

If for any reason we are unable to complete our compilation of your financial projection, we will not report specifically on such information. In order for us to complete this engagement, you must provide assumptions that are appropriate for the projection. If the assumptions are inappropriate and you do not revise them to our satisfaction, we will be unable to complete the engagement and, accordingly, we will not issue a report on the projection.

We understand that the projection and our report on it are solely for your use in considering the proposed investment. If you would like a report to distribute to third parties, we may need to perform additional procedures to provide you with it.

We shall be pleased to discuss this letter with you at any time. If the above is in accordance with your understanding, please sign this letter and return one copy to us.

Sincerely,

____

John Trion, CPA
Smith & Trion

JT:rh

Exhibit 23B-2

Sample Report and Projections

Smith & Trion, CPAs
123 Main Street
Anytown, California 95845

June 15, 19XX

Mr. Jeff Willard
3445 First Street
Anytown, California 95845

Dear Mr. Willard:

We are pleased to provide you with the following analysis of Good Food, Inc., d/b/a Acme Fast Food, Inc. In preparing this report, we reviewed the documents you provided on the franchisor, Acme Fast Food International, Inc. We also visited the Acme Fast Food, International, Inc., regional office and discussed your franchise proposal with Lionel Rhodes, the company's district manager, who gave us information regarding all existing and former franchises in the area. In addition, we reviewed the records you provided about your financial resources, experience, and personal and business objectives to evaluate your suitability to own and operate an Acme franchise. The analyses contained in our report are also based on information supplied to us by Acme Fast Food International, Inc., and Good Food, Inc., d/b/a Acme Fast Food, Inc., and by their directors, officers, and employees. They represented that the data they supplied to us was complete and accurate. We have not audited this data and, accordingly, we express no opinion about its completeness and accuracy.

We have compiled the accompanying projected balance sheets and statements of income and changes in cash position of Good Food, Inc., d/b/a Acme Fast Food, Inc., as of December 31, 19XX and 19XY in accordance with standards established by the American Institute of Certified Public Accountants. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

We prepared the accompanying projection and this report on Good Food, Inc., a franchised restaurant, to assist you in determining whether to purchase and operate the restaurant, and you should not use these documents for any other purpose.

We limit a compilation to presenting, in the form of a projection, information that is your representation. We do not evaluate the assumptions underlying the projection. We have not examined the projection and, accordingly, do not express an opinion regarding its credibility, nor do we offer any other form of assurance about the accompanying statements or assumptions. Furthermore, even if you do operate the business, you should anticipate that differences usually appear between projected and actual results because events and circumstances frequently do not occur as expected; and those differences may be material.

This report does not cover the tax aspects of the purchase. Since the proposed business would be an S Corporation for federal income tax purposes, you should obtain professional counseling on the tax consequences of the venture.

After reviewing the foregoing information, we conclude that the following are the main strengths and weaknesses of the franchise.

Summary of Apparent Strengths

1. The projected balance sheets, statements of income, and changes in cash position (attached) suggest that if the franchise can attain management's projected numbers, there should be a positive cash flow after the first month and an acceptable rate of return on the initial investment. We project that the stockholder's equity will increase from $100,000 to $128,836 in the first year. We also project a substantial increase in profits for 19XX.

2. The franchisor has been in business since 19MM and now has over four hundred franchises. Its audited financial statements, which the franchisor provided to us, indicate the business has made a profit over the last five years and has a working capital ratio of more than 1.5 to 1. The franchisees we contacted appear, on the whole, to be satisfied with the franchisor, judging by our discussions with them.

3. The training the franchisor provides appears to be extensive and includes over two hundred hours of on-site training. The discussions we had with other franchisees suggest that the training is very thorough.

4. Our review of your financial statement indicates that you have more than the minimum required to capitalize this business in accordance with the franchisor's proposal.

5. You are not required to purchase food from the franchisor or its sources, but only to obtain company approval of your suppliers.

Summary of Apparent Weaknesses

1. Our review of the franchise agreement with the franchisor indicates that you have a very limited exclusive territory. Other Acme Fast Food franchises can locate outside a two- mile area of your franchise. This may limit your market share and make advertising less cost-efficient.

2. The location that you selected would be the first fast-food franchise in the area. The traditional wisdom is that it is safer for a fast-food franchise to go into an area where there are other fast-food franchises.

3. The franchise will cost you approximately $300,000 to purchase, and you will require at least $50,000 to operate the business. This is considerably more than the opening and initial operating costs of other popular fast-food franchises.

4. The franchise agreement is for a ten-year period with only one three-year renewal option. This is short compared to the industry standard of ten years and two five-year renewal options.

You should consider these strengths and weaknesses and other factors before deciding whether to invest in the franchise.

Personal Suitability for Acme Franchise Ownership

Based on the information you provided to us, you appear well suited to own and operate an Acme franchise. Your capital resources are adequate for the purchase and operation of the business. Your significant experience as a restaurant operator suggests adequate knowledge of the food service industry. Finally, your personal and business objectives appear attainable through ownership of an Acme Fast Food franchise.

We appreciate this opportunity to serve you. If we can be of any further assistance in reviewing this franchise proposal or in implementing the acquisition should you proceed with it, please call us.

Sincerely,

John Trion, CPA
Smith & Trion
JT:rh

Exhibit 23B-2.1

Good Food, Inc., d/b/a Acme Fast Foods. Inc.
Projected Balance Sheets Assuming Adequate Capitalization and Operation
December 31,19xx and December 31, 19XY

Assets	19XX												
	Jan.	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Dec. 31 19XY*
Current Assets													
Cash		$60,000	$60,000	$50,000	$68,000	$23,000	$25,447	$34,194	$ 45,402	$ 56,609	$ 67,816	$79,023	$210,756
Total current assets	0	60,000	60,000	50,000	68,000	23,000	25,447	34,194	45,402	56,609	67,816	79,023	210,756
Property and equipment, at cost													
Equipment, furniture, and fixtures						120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
Leasehold improvements				10,000	30,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
	0	0	0	10,000	30,000	210,000	210,000	210,000	210,000	210,000	210,000	210,000	210,000
Less accumulated depreciation							1,500	3,000	4,500	6,000	7,500	9,000	27,000
	0	0	0	10,000	30,000	210,000	208,500	207,000	205,500	204,000	202,500	201,000	183,000
Other Assets													
Deposits						5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Franchise fee, net of accumulated amortization		40,000	40,000	40,000	40,000	40,000	39,366	38,732	38,098	37,464	36,830	36,196	28,588
Start-up cost, net of accumulated amortization					2,000	22,000	21,634	21,268	20,902	20,536	20,170	19,804	15,412
Total other assets	0	40,000	40,000	40,000	42,000	67,000	66,000	65,000	64,000	63,000	62,000	61,000	49,000
Total assets	0	100,000	100,000	100,000	140,000	300,000	299,947	306,194	314,902	323,609	332,316	341,023	$442,756

Liabilities and Stockholders Equity

Current Liabilities													
Current maturities of long-term debt						17,000	17,000	17,000	17,000	17,000	17,000	17,000	19,000
Accounts payable and accrued expenses							20,000	20,000	20,000	20,000	20,000	20,000	20,000
Total current liabilities	0	0	0	0	0	17,000	37,000	37,000	37,000	37,000	37,000	37,000	39,000
Long-term Debt													
Shareholder loans					40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
National Bank						160,000	158,727	157,442	156,147	154,838	153,519	152,187	135,212
Less current portion above						(17,000)	(17,000)	(17,000)	(17,000)	(17,000)	(17,000)	(17,000)	(19,000)
Total long-term debt	0	0	0	0	40,000	183,000	181,727	180,442	179,147	177,838	176,519	175,187	156,212
Stockholders' equity													
Capital stock, common, $10 par value 5,000 shares authorized, 1,000 shares issued		10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Additional paid-in capital		90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
Net profit (loss)	0	0	0	0	0	0	(18,780)	(11,248)	(1,245)	8,771	18,797	28,836	147,544
Total stockholders' equity	0	100,000	100,000	100,000	100,000	100,000	81,220	88,752	98,755	108,771	118,797	128,836	247,544
Total liabilities and stockholders' equity	0	$100,000	$100,000	$100,000	$140,000	$300,000	$299,947	$306,194	$314,902	$323,609	$332,316	$341,023	$442,756

See accompanying accountant's report and the summary of significant assumptions.

Exhibit 23B-2.2

Good Food, Inc., d/b/a Acme Fast Foods, Inc.
Projected Statements of Income and Changes in
Cash Position Assuming Adequate Capitalization
and Operation for the Two Years Ending December 31. 19XY

	19XX													
	Jan.	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*TOTAL*	*Dec. 31 19XY*
Sales							$70,000	$95,000	$110,000	$110,000	$110,000	$110,000	$605,000	$1,320,000
Cost of Sales														
Food							35,000	37,050	42,900	42,900	42,900	42,900	243,650	514,600
Wages							30,000	23,750	27,500	27,500	27,500	27,500	163,750	330,000
Fringe benefits							4,800	3,800	4,400	4,400	4,400	4,400	26,200	52,800
Gross profit	0	0	0	0	0	0	200	30,400	35,200	35,200	35,200	35,200	171,400	422,400
General and Administrative Expenses														
Advertising							1,400	1,900	2,200	2,200	2,200	2,200	12,100	26,400
Auto and truck							300	300	300	300	300	300	1,800	3,780
Franchise fees							3,500	4,750	5,500	5,500	5,500	5,500	30,250	66,000
Insurance (business)							300	300	300	300	300	300	1,800	3,760
Dues and subscriptions							120	120	120	120	120	120	720	1,512
Laundry							125	125	125	125	125	125	750	1,575
Miscellaneous and licenses							310	310	310	310	310	310	1,860	3,906
Office supplies							250	250	250	250	250	250	1,500	3,150
Operating supplies							1,400	1,900	2,200	2,200	2,200	2,200	12,100	26,400
Professional fees							350	350	350	350	350	350	2,100	4,410
Rent							4,200	5,700	6,600	6,600	6,600	6,600	36,300	79,200
Repairs and maintenance							175	175	175	175	175	175	1,050	2,205
Taxes (business							420	570	660	660	660	660	3,630	8,316
Telephone and utilities							1,830	1,830	1,830	1,830	1,830	1,830	10,900	23,068
Depreciation and amortization							2,500	2,500	2,500	2,500	2,500	2,500	15,000	30,000
Total G&A Expense	0	0	0	0	0	0	17,180	21,080	23,420	23,420	23,420	23,420	131,940	283,692

Income (loss) operations	0	0	0	0	0	0	(16,980)	9,320	11,780	11,780	11,780	11,780	39,460	138,708
Less interest expense							1,800	1,788	1,777	1,764	1,754	1,741	10,624	20,000
Net income/(loss)	0	0	0	0	0	0	(18,780)	7,532	10,003	10,016	10,026	10,039	28,836	118,708
Add Noncash expense:														
Depreciation and amortization							2,500	2,500	2,500	2,500	2,500	2,500	15,000	30,000
Cash provided by operation	0	0	0	0	0	0	(16,280)	10,032	12,503	12,516	12,526	12,539	43,836	148,708
Add (deduct):														
Capital stock purchased		100,000											100,000	
Shareholder loans					40,000								40,000	
Loans (National Bank)						160,000	(1,273)	(1,285)	(1,295)	(1,309)	(1,319)	(1,332)	152,187	(16,975)
Accounts payable (operations)							20,000						20,000	
Equip, furniture, and fixtures						(120,000)							(120,000)	
Leasehold improvements				(10,000)	(20,000)	(60,000)							(90,000)	
Franchise fee		(40,000)											(40,000)	
Deposits						(5,000)							(5,000)	
Start-up expenses					(2,000)	(20,000)							(22,000)	
Increase/decrease) in cash	0	60,000	0	(10,000)	18,000	(45,000)	2,447	8,747	11,208	11,207	11,207	11,207	79,023	131,733
Cash beginning of period	0	0	60,000	60,000	50,000	68,000	23,000	25,447	34,194	45,402	56,609	67,816	0	79,023
Cash end of period	$0	$60,000	$60,000	$50,000	$68,000	$23,000	$25,447	$34,194	$45,402	$56,609	$67,816	$79,023	$79,023	$210,756

See accompanying accountant's report and the summary of significant assumptions.

Exhibit 23B-2.3

Good Food, Inc., d/b/a Acme Fast Food, Inc.
Summary of Significant Assumptions Employed in Preparing the Projected Balance Sheets and Statements of Income and Changes in Cash Position for the Two Years Ending December 31, 19XY

These projected balance sheets and statements of income and changes in cash position present, to the best of your knowledge and belief, the expected financial position, results of operations, and changes in cash position for the projection period if the business is capitalized and operated. These projections assume the practitioner has determined that the business is a reasonable investment. Accordingly, the projection reflects your judgment as of June 15, 19XX, this projection's date, about expected conditions and actions if such business is operated. The presentation provides information for determining the feasibility of operating the franchise and cannot be considered a presentation of expected future results. Accordingly, this projection may not be useful for any other purposes. The assumptions disclosed herein are those that you believe are significant to the projection; however, you have not decided to operate the business. After a business becomes operational, projected and actual results usually differ because events and circumstances frequently do not occur as expected; such differences may be material.

1. Summary of Significant Accounting Policies

The accounting policies relative to balance sheet accounts are indicated in the captions on the balance sheet. Depreciation is calculated over the estimated useful lives of the equipment, using the straight-line method. Start-up expenses are amortized over a sixty-month period.

2. Hypothetical Assumption: Successful Negotiation of a $160,000 Loan

The projections assume that the corporation will successfully negotiate a $160,000 equipment and leasehold improvement loan. You have calculated interest on this $160,000 loan at 1.5 percent over the prime rate of 10 percent, with an amortization period of seven years. The payment has been calculated at $2,740 per month.

3. Hypothetical Assumption; Capitalization of the Corporation

You intend to capitalize the corporation with $100,000 of stock purchased at 1,000 shares of $10 at par value with 90,000 of additional paid-in capital. You also intend to loan the corporation $40,000 at 10-percent interest. The corporation will pay only interest during the first ten years and will make a balloon payment at the end of the ten-year period.

4. Franchise Fee

The franchise fee consists of a one-time payment of $40,000 plus continuing monthly payments of 7 percent of gross sales, with 2 percent of that going for advertising.

5. Start-up Expenses

Start-up expenses are projected at $22,000, including organizational expenses of the corporation and initial training of the staff before the store opens.

6. Sales

Sales are based on the national averages for Acme Fast Food franchises and the findings of a demographic and marketing study of the potential site conducted by Jones & Company and obtained through Good Food, Inc., d/b/a/ Acme Fast Food, Inc.

7. Cost of Sales

Cost of sales is based on the following national averages for Acme Fast Food franchises: food, 39 percent; wages, 23 percent; fringe benefits, 4 percent.

8. Rent

Rent is $4,200 per month or 6 percent of sales, whichever is higher, based on management's initial agreement with the property owner.

9. Other

The projections for general and administrative expenses, such as advertising costs, are based on national Acme Fast Food franchise information and your knowledge of the restaurant industry and local-area expenses. Advertising and other costs are expected to increase in line with the consumer price index.

10. Income Tax

You intend to establish the venture as an S-Corporation. Under this election, stockholders pay personal income tax on net earnings. Accordingly, the projection makes no provision for corporate payment of federal and state income taxes.

Exhibit 23B-3

Sample Representation Letter

Jeff Willard
3445 First Street
Anytown, California 95845

May 10, 19XX

Mr. John Trion
Smith & Trion, CPAs
1123 Main Street
Anytown, California 95845

Dear Mr. Trion:

As we agreed, you are to compile projected balance sheets, statements of income and changes in cash position, and summaries of significant assumptions (including the assumption that the business is operated) for Good Food, Inc., d/b/a Acme Fast Food, Inc. (the "company"), for the two years ending December 31, 19XX and 19XY. I make the following representations about the accounting policies and other information I provided to you for these projections:

1. The financial projection presents my assumptions and, to the best of my knowledge and belief, the company's expected financial position, results of operations. and changes in cash position for the projection period, assuming the business is operated.

2. The accounting principles underlying the financial projection are in accordance with the generally accepted accounting principles the company expects to use during the projection period. The company expects that the principles will be consistent with those it will use in preparing its historical financial statements.

3. The financial projection is based on my judgment, considering present circumstances, of the expected conditions and actions, assuming I operate the business and it is adequately capitalized.

4. I have provided you with all significant information that I believe is relevant to the projection.

5. I believe the assumptions underlying the projection are appropriate and reasonable, provided the business is operated.

6. To the best of my knowledge and belief, the documents and records supporting the assumptions are appropriate.

7. I intend this projection to serve solely for my use in considering the proposed investment.

Sincerely,

____

Jeff Willard

BIBLIOGRAPHY

American Bar Association. *Franchise Law Journal.* (monthly)

Bond, Robert E. *The Sourcebook of Franchise Opportunities.* New York: Dow Jones-Irwin, 1984.

Dixon, Edward L. *The Franchise Annual Directory.* New York: Information Press.

Friedlander, Mark, Jr., and Gene Gurney. *Handbook of Successful Franchising.* New York: Van Nostrand Reinhold, 1982.

Gross, Harry, and Robert S. Levy. *Franchise Investigation and Contract Negotiation.* New York: Pilot Books, 1975.

Hjelmfelt, David C. *Understanding Franchise Contracts.* New York: Pilot Books, 1974.

Kostecka, Andrew. *Franchising in the Economy.* Washington, D.C.: U.S. Government Printing Office, 1987.

______. *Franchising Opportunities Handbook.* Washington, D.C.: U.S. Government Printing Office, 1988.

Norback, Peter G., and Craig T. Norback. *The Dow Jones-Irwin Guide to Franchises.* New York: Dow Jones-Irwin, 1983.

Scher, Bruce. *Franchising: How to Successfully Select a Money Making Business of Your Own.* New York: Bay Publishing, 1978.

Seltz, David D. *Complete Handbook of Franchising.* Reading, Mass.: Addison-Wesley, 1982.

Siegel, William L. *Franchising.* New York: John Wiley & Sons, 1983.

Small, Samuel. *Directory of Franchising Opportunities.* New York: Pilot Books, 1986.

IV

Organization and
Human Resources Services

Part IV—Organization and Human Resources Services

30/100 ASSISTING A CLIENT IN DEVELOPING AN EMPLOYEE HANDBOOK

CONTENTS

30/100 ASSISTING A CLIENT IN DEVELOPING AN EMPLOYEE HANDBOOK

30/105 SCOPE OF THIS PRACTICE AID

.01 Some business owners are not comfortable with formalized policies for hiring, firing, rewarding, or developing employees. Instead, they make personnel policy decisions based on personal preferences. But that is an inconsistent and time-consuming way of managing personnel and can breed employee resentment. Eventually, most business owners find that personnel administration is more successful when personnel policies are uniformly applied and documented in a handbook accessible to everyone.

.02 Most companies, even those with just a few employees, would benefit from an employee handbook. Usually this handbook answers the most important questions employees ask about such subjects as salary review, holidays, benefit programs, and leaves of absence. It keeps all employees informed about company regulations regarding such items as working hours and meal breaks and advises them about policy changes. The handbook may also contain information about procedures required to comply with the policies. In addition, it provides supervisors with the support needed to enforce policies. A well-drafted handbook can inspire employee loyalty and productivity, but a poorly drafted handbook can tie a company's hands and result in disputes on policies.

.03 This practice aid provides guidance to practitioners who assist clients in writing an employee handbook. The appendix presents illustrative material, including a sample engagement letter, a sample project schedule, and a sample handbook outline. Employee handbooks can be legally binding for both the employer and employees. Since each state's employment laws vary, the practitioner or client should consult legal counsel before issuing an employee handbook to make sure that it does not contradict federal or state law.

30/110 DEFINITIONS

.01 The following terms are defined as they are used in this section.

.02 **Policy.** A rule governing organizational behavior. A policy may be developed to prevent recurrence of problems that have arisen in the past, as well as to prevent employee confusion in areas that management considers important. Using established policies helps managers make decisions in areas outside their expertise. Policies ensure some consistency in behavior and allow managers to concentrate on decisions in areas where they are most experienced and knowledgeable.

.03 Procedure. A specific direction on how to perform a particular activity. Organizations need consistent decision making based on well-developed, but not excessively restrictive, policies and procedures. Written procedures are needed only for the most vital areas. Some organizations discourage managerial initiative by developing procedures for everything.

.04 Handbook. A book or booklet containing information on a particular topic. An employee handbook consists of management's specific policies related to personnel issues and procedures for complying with the policies. Usually, the handbook explains the reasoning and other details about the policies.

30/115 TYPICAL ENGAGEMENT SITUATIONS

.01 In the following situations, an employer would benefit from developing an employee handbook.

- Informal policies are applied inconsistently. *Example:* Two supervisors are given different sick leave benefits for similar situations.
- Lines of personnel policy authority and responsibility are unclear. *Example:* Not all staff members know who recommends and approves raises.
- The organization's workforce has grown or is expected to grow rapidly. *Example:* A company will increase its workforce because it is expecting sales to increase substantially in the next six months. Management wants policies communicated clearly and uniformly.
- Certain business decision making is becoming decentralized. *Example:* The owner plans to delegate more decision-making power to management but wishes to ensure consistent personnel policies.
- Because of expansion, an organization requires a more formal method of communicating policies. *Example:* A company plans to open another warehouse or branch sales office with fewer management and administrative personnel present to communicate policies.
- Government regulations require compliance. *Example:* Policies of the Occupational Safety and Health Administration (OSHA) and the Equal Employment Opportunity Commission (EEOC) mandate adherence to certain standards and consistency of employee treatment.
- New owners plan to implement certain employee policies that have been effective in other situations. *Example:* A privately held company plans to adapt and implement its policies in a newly acquired, publicly held corporation.

30/120 ENGAGEMENT CONSIDERATIONS

.01 In deciding whether to accept an engagement to prepare an employee handbook, the practitioner considers the following factors:

- Will client management help the practitioner develop and review the handbook?
- Will client management actively use and support the handbook?
- Does the practitioner know or can he or she learn about regulations affecting personnel policies?
- Has the practitioner developed a handbook for his or her own firm?
- Can the client describe existing personnel policies?

30/125 UNDERSTANDING WITH THE CLIENT

.01 When undertaking an engagement to develop an employee handbook, the practitioner needs to reach an understanding with the client. Certain common elements of this understanding, such as the engagement's objectives, benefits, scope, scheduling, and the roles of the client and the practitioner, are discussed in the following paragraphs. An engagement letter is recommended. Exhibit 30-1 provides a sample engagement letter.

Engagement Objectives

.02 The client's purposes for developing an employee handbook can vary greatly, depending on the client's situation, and therefore need to be clearly established. Some typical objectives are to—

- Communicate the company's mission and related goals.
- Establish a current and comprehensive source of company personnel policies.
- Communicate employees' legal rights and obligations to employees and employers.
- Clearly define lines of authority for personnel matters within the organization.
- Provide an instrument for consistent application of personnel policies.
- Provide uniform use of personnel-related documents and software.

Engagement Benefits

.03 Typical engagement benefits include:

- Goals that are consistent with the mission statement.
- Consistency and objectivity in administration of policies.

- The avoidance of problems before they develop, thereby minimizing crisis management.
- A fresh look at existing policies to determine the need for revision.

Engagement Scope

.04 The scope of the engagement may be narrow, limited to only documenting existing policies, or it may be broad, including updating existing policies and recommending new policies. It may also include provisions for supplements to the handbook and periodic review.

Scheduling

.05 A schedule for all engagement activities, including starting and ending dates, is important. The practitioner and the client can then allocate staff resources on a timely basis. Exhibit 30-2 provides a sample project schedule.

Roles of the Practitioner and the Client

.06 The roles of client management and staff and the practitioner need to be clearly defined. To ensure the engagement's success, the practitioner needs to determine who has authority and responsibility to speak for management. This step is important because the handbook will have no value or use if it contains incorrect information.

30/130 ENGAGEMENT APPROACH

Fact-Finding

.01 The practitioner can gather pertinent information through observation, interviews, and review of written materials. A physical inspection of the client's premises provides an excellent overview of operations and helps the practitioner gain insight into the level of detail required for the policy handbook. The practitioner may be accompanied by a client representative or may walk through alone.

.02 To elicit careful responses in interviews, the practitioner needs a comfortable environment that is free of distraction. Talking with key management is especially important because policies are issued by those in higher authority. In particular, the chief operating officer or owner-manager, financial officer, personnel director, and line managers need to be interviewed. Exhibit 30-3 provides suggested questions for these individuals. Not every question will result in a response reflected in the personnel handbook, but the practitioner needs to gather pertinent information to allow management to determine the handbook's scope.

.03 Even a client who does not have an existing employee handbook probably has a good deal of written material relating to policies and overall operations. Such materials as employee policy memos, annual reports, advertising literature, and financial statements can help the practitioner learn about current policies.

Preparing the Outline

.04 After completing the fact-finding phase, the practitioner analyzes the policy and operations information and develops a moderately detailed outline of the handbook. The outline's purpose is to present a proposed content structure to client management, so it need not be overly detailed. Management reviews the outline before the practitioner drafts the handbook. Exhibit 30-4 provides a sample outline. Since the contents of an employee handbook may vary based on company circumstances and management's instructions, the information listed in exhibit 30-4 should serve as a guide, not a model, for actual content. Subjects not listed in the sample outline may be appropriate for specific clients.

Drafting the Employee Handbook

.05 In most states, a nonunion worker, unless he or she has an individual contract, is employed at will. Either the employee or employer can terminate the employment relationship at any time for any legal reason. "Just cause" is not necessary. A poorly drafted handbook can change that relationship. In states where employee handbooks are enforceable, the courts will interpret vague provisions of the handbook in favor of the employee. For example, if a handbook lists specific work rules, a court might say that an employee cannot be disciplined for conduct that is not prohibited.

.06 The employee handbook needs to be written so that it does not restrict the company's flexibility to manage properly and, when necessary, to discipline employees. It should also state that it does not constitute an employment contract and that employees work at the company's will. The handbook needs to specify that it is only a source of general information and is subject to modification. Exhibit 30-5 provides a sample disclaimer covering these points.

.07 A few of the topics for which discussions in employee handbooks require particularly careful drafting include work hours and vacations, overtime and holiday pay, drug and alcohol policies, and employee benefit plans.

.08 **Hours and Vacations.** The handbook should specifically state that the company reserves the right to change work hours and vacations due to business conditions and company needs. If employees are aware of this possibility in advance, it will lessen discontent. The handbook also needs to specify at what point an employee earns vacations and what happens if an employee leaves the company before taking earned vacation time.

.09 **Overtime and Holiday Pay.** These provisions require careful wording to prevent excessive overtime and stop employees from using the same hours more than once in calculating overtime.

.10 **Drug and Alcohol Policies.** To protect themselves and their employees, many companies have instituted drug and alcohol policies, including preemployment screening, postaccident testing, and the right to conduct searches. A clearly written policy makes it harder for employees to assert a right of privacy that allows them to hide drugs or alcohol.

.11 **Employee Benefit Plans.** The employee handbook should not attempt to describe the benefits available under the plans. It should only mention that the plans exist and refer readers to informative literature describing the plans in detail. If the handbook does describe specific benefits, the company risks exposing itself to liability if the information is vague or incorrect.

.12 A good employee handbook presents facts and ideas so that readers easily understand them and focus on what is being said rather than how it is said. Clarity and conciseness are vital. If readers do not understand what is written, they cannot use it. If the material conveys the wrong meaning, it can be even more harmful. In addition, unnecessary and irrelevant information should be excluded.

.13 Each chapter section, paragraph, and sentence should have a central purpose, and everything in each of the elements should contribute to its development. Sentence length requires careful study. Lengthy sentences can be broken into smaller units. Too many short sentences, however, may weaken cohesiveness. As with sentences, paragraphs should vary in length, with the aim of avoiding several consecutive long or short paragraphs.

.14 Abbreviations should be used sparingly. The first time a term with an abbreviated form appears, the abbreviation should be placed in parentheses after the term. This method enables the reader to recognize the abbreviation when it appears again.

.15 The handbook may use capitalizing, underlining, and italics to stress certain points. Overuse of these devices, however, may weaken their effectiveness and decrease readability,

.16 The practitioner should set a rule for treating numbers. For example, all numbers under ten may be spelled out when they appear in text matter, and figures may be used for numbers ten and higher.

.17 Exhibit 30-6 presents additional illustrative sections of an employee handbook. Exhibit 30-7, "Rules-of-Conduct Agreement," is a sample of the type of agreement many employers require their employees to sign.

Reviewing of Draft by Management

.18 The practitioner distributes a draft of the handbook to all key management personnel, including everyone who provided policy input and others identified by top management. After reviewing their comments, the practitioner prepares the final draft and presents it to the client for approval and sign-off. Management has responsibility for the final content of the handbook, and a statement to that effect in the sign-off form is appropriate.

Determining the Handbook's Structure

.19 Two basic page-numbering systems are available. In one system, the pages in the entire handbook are numbered consecutively. For example, a 150-page handbook would be numbered 1 through 150. The second system numbers each section of the handbook individually and has page numbers begin again with each new section (for example, 1-1, 1-2, 1-3; 2-1, 2-2, 2-3). The latter method allows easier revision within sections.

.20 A practitioner who chooses to number the pages consecutively may want to leave space on each page to allow for revisions. Then the pagination will change only slightly with each revision. In addition, a revision date may be added in the bottom left corner. For example:

Revised 1/XX	Personnel Policies and Procedures	17

.21 If users are to insert the revisions into the handbook, insertion instructions and a master page index need to be issued along with the new pages. The index provides users with a current list of page numbers and date codes so that they can be sure their manuals are up to date.

.22 Tabbed index pages are valuable to people who refer to the handbook regularly. Tabbed pages make it easy to locate information, thereby saving time and encouraging greater use of the manual.

.23 The practitioner considers several factors before selecting the binding for the handbook. These factors fall into the categories of updating requirements, quantity, and use.

.24 **Updating.** A loose-leaf or three-ring binder makes it easy to remove or replace individual pages or small sections that require frequent updating. A client who makes major revisions according to a predetermined schedule may prefer to use a more permanent binding and replace the entire handbook periodically.

.25 **Quantity.** A client who needs a small quantity of handbooks will probably want to use a stock-item, rather than a custom-made, binder. A stock-item binder can be customized by hot stamping, silk screening, or inserting printed cardstock paper into the front and spine.

.26 **Use.** For easy handling, the handbook's bulk and weight need to be kept within reasonable bounds. Plastic comb bindings, although attractive, lie flat and usually are not durable.

APPENDIX 30

ILLUSTRATIVE MATERIAL

Exhibit 30-1

Engagement Letter

CPA & Company
One Citicenter Place
Anywhere, USA 11111

January 5, 19XX

Mr. John Smith
ABC Company
10 Maney Street
Anytown, USA 00000

Dear Mr. Smith:

This letter confirms our understanding that CPA & Company will assist ABC Company in developing an employee handbook. ABC management will use the handbook as a general guide to personnel-related decision making and will give it to employees for specific information on personnel policies and procedures. ABC Company is responsible for the handbook's content, which may be considered legally binding. Therefore, ABC Company should have legal counsel review the handbook before distributing it.

Engagement Approach

We request that you appoint an individual on your staff as project coordinator and that this individual help us assemble all existing written personnel policies and procedures before the engagement starts. After reviewing the documentation, we will interview you and other key personnel to better understand current personnel practices and solicit suggestions for improvement or additions. We will also review available handbooks used by other businesses in your industry to determine if any industrywide personnel practices are appropriate for your organization.

We will then prepare a draft handbook based on the fact-finding information. At a minimum it will cover the following topics, which you have identified as necessary:

- Code of business conduct
- Employment laws

- Employment policies
- Work rules and habits
- Security
- Attendance and work hours
- Wages and salary
- Benefits
- Staff development
- Change in status

ABC staff designated by you will review the draft, and CPA & Company will revise it as appropriate. CPA & Company will also prepare suggested procedures for maintaining the handbook and internal controls for assessing compliance with applicable law.

The engagement will be complete when we deliver a final management-approved version of the employee handbook to you. Subsequent review by legal counsel is not within the scope of this engagement.

Timing and Fees

We anticipate starting our engagement on June 1 and completing it within three months. We base our fees on time expended at our standard hourly rate, plus any out-of-pocket expenses. We estimate the fee for this engagement at $XX,XXX. We will bill you monthly, and the invoices are payable on receipt. If you wish to increase or decrease the engagement's scope, we will discuss it with you and adjust the fees as necessary.

Please signify your acceptance of this engagement by signing this letter and returning one copy to us.

Sincerely,

____

Peter Jones, CPA & Company

Accepted by______________________________

John Smith, ABC Company

____

Date

Exhibit 30-2

Project Schedule

Task	*Dates* Begin	End
Practitioner gathers and reviews initial information.	______	______
Practitioner interviews key personnel.	______	______
Practitioner prepares a detailed outline of handbook for management approval.	______	______
Practitioner develops and sends rough draft to managers.	______	______
Managers review draft handbook and prepare comments for discussion.	______	______
Managers meet with practitioner to discuss changes in rough draft.	______	______
Practitioner prepares and sends second draft to managers.	______	______
Managers and practitioner meet to discuss final changes.	______	______
Practitioner makes appropriate changes and sends final draft to designated department or printer for final copies.	______	______
Managers receive final copies and schedule meetings to discuss formalized policies with entire staff.	______	______

Exhibit 30-3

Suggested Interview Questions

The following questions are typical for interviews during an engagement to develop an employee handbook. Most have a direct bearing on the contents of the employee handbook. Others provide the practitioner with necessary client background information. The practitioner may have already received answers to some of these questions during preliminary research. Additional questions may come to mind as the interview progresses.

Questions for the Chief Executive Officer

1. What is the history of this company? How did it achieve its current status?

2. What goals do you have for the company regarding dollar volume, expansion, other activities, new products, staff, and so on?

3. What are the company's major strengths and weaknesses?

4. What is the company's business philosophy?

5. What is the company's organizational structure?

6. Has the company made any unannounced plans that may affect the preparation of the employee handbook?

7. Does the company hire executives from outside or does it develop and promote them from within?

8. What are the company's procedures for hiring top executives?

9. Broadly describe the company's employee benefit program.

Questions for the Chief Financial Officer

1. What is the company's policy for travel and entertainment expenses and how are such expenses monitored?

2. What systems and controls are used to detect and prevent staff theft of assets, such as cash, supplies, and tools?

3. Who signs company checks?

4. What is the company's policy toward employees who accept bribes or convert company funds or property? Exactly how is this policy implemented?

Questions for the Director of Personnel or the Manager Responsible for Personnel Matters

Personnel Department Organization

1. If a formal organizational chart does not exist, can you describe the chain of command in your department?

2. Do you currently have a formal set of personnel policies?

3. If not, what policies are there and how are they enforced?

4. Is a brochure or other means used to welcome new staff and explain essential company policies?

5. If not, how is this function handled?

6. Does the company have a policy for—

    a. Giving references for former staff members?

    b. Checking references and educational claims of prospective new staff?

    c. Employing people who have an arrest record?

    d. Employing people who have a prison record?

    e. Employing people who have physical disabilities or health problems?

    f. Employing people who have worked for competitors?

    g. Employing people under the age of eighteen?

7. If there are periodic company social functions, what are they, when do they occur and how are they planned? By whom are they administered? Who establishes and controls budgets?

Employee Wages and Benefits

8. What benefits do staff members receive?

9. Does the company have a wage-administration system, and if so, how does it operate?

Recruitment and Termination

10. How are prospective new staff members located, evaluated, hired, and trained?

11. Does the Personnel Department use any manual or set of procedures for—

    a. Preparing Help Wanted ads?

    b. Conducting executive searches?

    c. Evaluating resumes?

    d. Interviewing prospective staff members?

12. Who decides to discharge staff members?

13. Explain the full procedure for discharging staff members.

14. Does the company conduct an exit interview? If yes, who conducts it? If no, why not? What are its objectives?

15. How extensively are departmental managers involved in the hiring process? How does this work?

16. Does the company use employment agencies? Does it pay fees?

17. What is the policy on using temporary staff? Who determines the need? How is continuation of need monitored? Who purchases such services?

Promotion

18. What are the company's policy and system for internal advancement?

Evaluation, Review, and Awards

19. Is there a system for periodic staff member review and evaluation? What role do department managers play?

20. Does the company give awards for—

    a. Outstanding services?

    b. Suggestions?

    c. Referrals?

    d. Anniversaries of employment?

    e. Retirement?

    f. Safety?

21. Who determines the budget for such awards and how is it administered? If awards are tied to company functions such as banquets, luncheons, and picnics, who plans and administers them? Explain the entire process.

Education

22. Does the company encourage continuing education? If yes, how does it do so?

Retirement

23. Does the company have a retirement program? If yes, explain how it works.

Records

24. How are personnel records maintained? Who is responsible for maintaining them? Who has access to personnel records?

25. What is the system for keeping records of staff work hours (for payroll), authorized and unauthorized days off, and so on?

Strengths and Weaknesses

26. What are the company's greatest strengths in its personnel practices?

27. What are the company's greatest weaknesses in its personnel practices, and what are your recommendations for improvement?

Questions for the Production Manager

1. If a formal organizational chart does not exist, can you describe the chain of command in your department?

2. Are you kept informed of company objectives? How?

3. Is there a company safety program? How is it promoted and administered? Who is in charge of it?

4. What is the procedure for taking care of staff members who are injured on the job? How and to whom are injuries reported?

5. What is the system for—

   a. Scheduling vacations?

   b. Reporting absences?

   c. Reporting tardiness?

Exhibit 30-4

Outline for an Employee Handbook

I. Introduction

   A. Brief company history

   B. Company philosophy

   C. Directions for using and updating the manual

II. Code of Business Conduct

   A. Drugs and intoxicants

   B. Outside activities

   C. Community, charitable, and other activities

   D. Statement of confidentiality

   E. The company and politics

   F. Summary

III. Employment Laws

   A. Affirmative action

   B. Age Discrimination Act

   C. Federal Child Labor Law

IV. Employment Policies

   A. Hiring procedures

   B. Employment application

   C. The interview

D. Checking references

E. Recruitment procedures

F. Probationary status

G. Required personnel papers

H. In-house transfers

I. Rehiring former staff members

J. Employment of handicapped

K. Employment of veterans

L. Retention of applications

M. Fair Labor Standards Act

N. Staff member classification

0. New staff member orientation

P. Employment at will

Q. Termination statement

R. Cross-training

V. Work Rules and Habits

A. Occupational Safety and Health Act (OSHA)

B. Emergency procedures

C. Staff safety training

1. First aid

2. Accident prevention

D. Customer injuries

E. Solicitations

F. Accepting gifts

G. Dress and grooming

H. Smoking

I. Outside employment

J. Customer service

K. Personal telephone calls

L. Mailing system

M. Sexual harassment

N. Disciplinary procedure

0. Memo on staff counseling

P. Reimbursement approval

Q. Company purchase and supply

VI. Security

A. Theft

B. Bomb threats

C. Fire

D. Weather-related catastrophes

E. Flood

F. Arrival-departure security

G. Access before and after hours

H. Access to records and software

VII. Attendance and Hours of Work

A. Attendance

B. Rest periods and meal breaks

C. Hours of work

D. Records of hours worked

E. Overtime

F. Absences

G. Punctuality

VIII. Wages and Salary

A. Administrative guidelines

B. Merit increases

C. Pay periods

D. Payroll deductions

E. Social security

F. Unemployment compensation

G. Garnishments

H. Equal Pay Act

IX. Benefits

A. Disclosure of benefits

B. Health care

C. Worker's compensation

D. Sickness and disability

E. Medical leave of absence

F. Accidental death and dismemberment

G. Credited services

- H. Vacations
- I. Length of service
- J. Holidays
- K. Leave of absence
  1. Military
  2. Child care
  3. Educational
  4. Personal
  5. Maternity-paternity
- L. Marriage
- M. Jury duty
- N. Voting
- 0. Funeral leave
- P. Parking
- Q. Employee activities
- R. Employee suggestions
- S. Company privileges
- T. Tuition reimbursement

X. Staff Member Development

- A. Schools and training
- B. Seminars and workshops
- C. Nonexempt employee performance appraisals
- D. Exempt employee performance appraisals

XI. Change in Status

A. Change of personal status

B. Promotions

C. Internal staff member status change

D. Terminations

E. Resignations

F. Exit procedures

Exhibit 30-5

Disclaimer

Confidential

For internal use by company staff members only. Not to be published or reproduced.

This employee handbook does not constitute an employment contract for any period of time but merely sets forth policies and procedures in effect on the date it was issued. This handbook may be amended periodically without prior notice to staff members.

Initial and ongoing employment is based on employment-at-will principles. Each staff member has the right to sever his or her employment with the company. The company retains the right to terminate the employment of any staff member, with or without notice and with or without cause.

Exhibit 30-6

Personnel Policies

Work Hours

The normal work day schedule is eight hours, on average, plus a meal break of one hour. The regular work week is forty hours, plus meal breaks. Actual starting and quitting times vary from department to department, depending on the work flow in the department. Generally, the clerical staff works from 8:00 A.M. to 5:00 P.M. and all other employees work from 7:30 A.M. to 4:30 P.M.

Work includes the following:

- Working on the job
- Participating and contributing toward the principal activity of the company
- Preparing the work area
- Learning a job
- Correcting work

Work includes travel time if it is—

- During regular working hours.
- The result of an emergency call outside regular working hours.
- Outside regular working hours as the result of a one-day special assignment.
- Time spent by a driver transporting fellow employees to a work assignment.

Work does not include meal breaks, travel time as a passenger outside regular working hours, and unauthorized time spent getting ready for work prior to regular working hours.

Meal Breaks

One meal break of a maximum of one hour is to be provided during each work shift. Employees working beyond the eight-hour work day receive a meal break for each additional four hours worked. Changes in the time employees take meal breaks must be approved by a supervisor. Employees use the time clock to report meal breaks.

Meal breaks are not work time and are not compensated. Employees may not waive their meal breaks.

Each department schedules its own meal breaks. It is important that each employee leave for meals on time to prevent delays that upset the schedules of others.

Truck drivers take one-hour meal breaks. Shipping/receiving area personnel take meal breaks from 12:00 PM. to 1:00 P.M. Freight will not be received or signed for during this time. Store employees take meal breaks in hourly shifts as assigned by the supervisor.

Accounting department employees take meal breaks from 12:00 P.M. to 1:00 P.M., except for one person, who remains to answer telephone calls. The telephone assignment may be rotated among employees. The telephone answerer's meal break will be from either 11:00 A.M. to 12:00 P.M. or 1:00 P.M. to 2:00 P.M.

Records of Work Hours for Employees Paid by the Hour

Employees use a time card to keep an accurate record of hours worked. Employees clock in and out daily as follows:

- When reporting to work, employees are to clock in.
- Employees are to clock out at the beginning of their meal break and clock in when the lunch break is over.
- At the end of the day, employees are to clock out.

Time cards are for two-week periods. Any time off should be designated as due to sickness, personal emergency, holidays, and so on. At the end of each two-week period, the employee signs his or her time card, certifying correctness. An employee who falsifies a time card is subject to discipline and possible termination.

Employees are not to clock in or out for other employees. An employee who breaks this policy is subject to discipline and possible termination.

If an employee forgets to clock in or out, the supervisor needs to approve the written-in time on the same day it occurred, not at the end of the pay period.

Supervisors are required to maintain control of employees' time cards. Supervisors review time cards for accuracy, verifying time recorded and accumulated regular hours and overtime hours. Supervisors then sign the cards.

Overtime

Work assignments within the company are completed during normal work hours. The department manager authorizes any overtime work ahead of time.

Overtime begins when a nonexempt employee works more than forty hours in a one-week period. Paid holidays, paid leave days, paid vacation days, and unauthorized absences, during which an employee did not work, will not be counted as hours worked in computing weekly overtime.

The rate of pay for overtime is 1 1/2 times the employee's normal pay rate. Time off, in lieu of overtime pay, is an option available to the employee if approved by the supervisor.

Casual Overtime

Casual overtime is unscheduled and not expected to continue for more than a few days. It occurs infrequently and cannot be predicted. An example is overtime required to meet an emergency caused by machine breakdown, unexpected absenteeism, or temporary heavy production demand. Supervisors must approve casual overtime beforehand.

Scheduled Overtime

Scheduled overtime occurs with regularity and usually can be predicted. For instance, if a supervisor announces that a certain number of people will have to work ten hours overtime for the next six weeks to meet an unusual production demand, this is classified as scheduled overtime. Supervisors must approve this overtime beforehand.

Miscellaneous

An employee eligible for overtime is paid according to policy and may not waive the right to overtime compensation. Compensatory time off may be granted to exempt employees at the discretion of the appropriate supervisor.

Attendance

All employees work their full shift when possible. All absences are reported, and the office manager records them. A dependable attendance record is extremely important. Because of the nature of our work, most positions are hard to fill with substitutes.

Employees are not expected to work, however, when illness or a personal emergency makes absence necessary. Employees should take reasonable care of their health to maintain a prompt and regular attendance record.

Absences

Even if an absence involves consecutive days, each instance is recorded as one occurrence for performance appraisal purposes.

Excused Absences

When approved by the appropriate supervisor, absences for the following reasons are excused and may be eligible for full or partial compensation according to the policy governing that absence: holidays, vacation, jury duty, military leave (for example, National Guard duty), and other approved absences.

Unexcused Absences

An employee contacts the supervisor as soon as possible on the date of an absence, but no later than one hour after the beginning of the work shift. Failure to do so results in an unexcused absence, which will not be compensated.

Exhibit 30-7

Rules-of-Conduct Agreement

Everyone at [organization] is working for the same goals: growth, profit, security, and career success. We expect you to obey company policies and set high personal standards to help yourself and the organization achieve these goals.

If you engage in any of the following activities, which are harmful to the success of our company, you will be subject to immediate dismissal:

- Theft
- Destruction or misappropriation of property
- Dishonesty of any kind
- Manipulation of documents
- Alteration or falsification of records
- Use of or impairment by alcohol and marijuana and the illegal use of controlled drugs while on the premises
- Unauthorized disclosure of confidential information

We are confident that you will always observe the rules of good conduct. Please read the employee handbook to become familiar with the policies and procedures that govern you on your job. Your signature on this form attests to the fact that you have read and understood the handbook and will abide by the policies set forth in it.

I have read the above statements. The personnel manager has explained the policies and procedures governing the company and my job. I understand what is expected of me as an employee.

_______________________________ ____________________________
Employee Signature Date

_______________________________ ____________________________
Personnel Manager Signature Date

BIBLIOGRAPHY

Armstrong, M., and J. Lorentzen. *Handbook of Personnel Management Practice;Procedures, Guidelines, Checklists, and Model Forms.* Englewood Cliffs, N.J.: Prentice-Hall, 1982.

Gordon, J. *Human Resource Management.* Englewood Cliffs, N.J.: Prentice-Hall,1986.

Human Resources Management. *Personnel Practice/Communications.* Chicago: Commerce Clearing House, 1981.

Klarreich, S. *Human Resources Management Handbook: Principles and Practices of Employee Assistance Programs.* New York: Praeger, 1985.

Kravitz, D. *The Human Resources Revolution; Implementing Progressive Management Practices for Bottom Line Success.* San Francisco: Jossey-Bass, 1988.

Managing Personnel and Human Resources—Strategies and Programs. Homewood, Ill.: Dow Jones-Irwin, 1981.

Norback, C.T. *Human Resources Yearbook.* Englewood Cliffs, N.J.: Prentice-Hall, 1979.

Small Business Administration. *Pointers on Preparing an Employee Handbook.* SBA Management Aid No. 179. Washington, D.C., 1974.

Tracey, W. *Human Resources Management & Development Handbook.* New York: AMACOM, 1984.

Yoder, D., and H. Heneman. *ASPA Handbook of Personnel and Industrial Relations.* Washington, D.C.: Bureau for National Affairs, 1979.

The following are sources of additional information:

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31/100 DEVELOPING AND IMPROVING CLIENTS' RECRUITMENT, SELECTION, AND ORIENTATION PROGRAMS

CONTENTS

31/100 DEVELOPING AND IMPROVING CLIENTS' RECRUITMENT, SELECTION, AND ORIENTATION PROGRAMS

31/105 SCOPE OF THIS PRACTICE AID

.01 Effective policies and practices for recruiting, selecting, and orienting personnel are critical to every business. To succeed, an organization needs qualified, informed, and motivated personnel. Securing such personnel is not a matter of chance, but of attracting the right candidates and selecting the best among them. Once the company hires the best people, it needs to orient them to its goals, objectives, and policies and procedures so that they can quickly become effective and committed members of the organization.

.02 During an engagement to assist in developing or improving a recruitment, selection, and orientation program, the practitioner needs to tailor the engagement approach and recommendations to the requirements and situation of each client. Methods for recruiting and selecting technical professionals differ from those used for managers and clerical and production workers. Specific industries may require particular techniques. Furthermore, the experience and skills of the personnel who implement these programs will influence their nature.

.03 The purpose of this practice aid is to provide practitioners and members in industry with information they can use to establish or enhance policies and procedures for the recruitment, selection, and orientation of personnel. In the appendixes, a case study and sample forms provide specific examples of how practitioners may apply the general information.

31/110 TYPICAL ENGAGEMENT SITUATIONS

.01 A client may need assistance in developing policies and procedures for recruiting, selecting, and orienting personnel as a result of a variety of circumstances. The following are some typical situations:

- A new or growing organization is establishing a personnel department for the first time.
- A company wishes to develop a personnel policies and procedures manual[1] to standardize and document existing personnel practices. One section of such a manual needs to address the topic of recruiting, selecting, and orienting personnel.

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[1] For information on developing policy manuals, see section 30/100, "Assisting a Client in Developing an Employee Handbook."

- The organization is experiencing personnel problems, such as difficulty in attracting qualified candidates, retaining good employees, or matching of skills with job requirements.

- The organization's problems in productivity and quality appear to be rooted in the orientation and motivation of the work force.

.02 Practitioners can help clients diagnose problems that may result from inappropriate recruitment, selection, and orientation practices, and can also help them make beneficial changes. Such changes, however, cannot eliminate problems that result from uncompetitive compensation, poor working conditions, and similar situations. To effect improvements in these situations, practitioners may need to recommend revisions of compensation policies and strategy, office or plant layout and environment, fringe benefits, and many other areas.

31/115 PRELIMINARY SURVEY

.01 Before beginning the engagement, the practitioner defines the scope of the work to be performed and determines appropriate fees for the work. Accordingly, the practitioner may conduct a brief, preliminary fact-finding survey to better understand the client's needs and engagement benefits. The survey will also help the practitioner define the engagement elements and approach, and may enable him or her to determine the product to be delivered to the client, such as a report of findings and recommendations or a policy and procedures manual for recruitment, selection, and orientation, or both.

.02 A survey of an existing client requires less time than one for a prospective client because the practitioner knows the operations, policies, and other pertinent factors associated with its recruitment, selection, and orientation problems or needs. The factors to consider include the adequacy of staffing, the morale of employees, the growth objectives of the company, and the practices of competitors. The preliminary survey may be phase one of an engagement or a brief preengagement review.

Current Personnel Policies, Procedures, and Related Documents

.03 Practitioners often find that few organizations, except very large ones, have policies and procedures covering recruitment, selection, and orientation. Most organizations leave these important personnel matters to the discretion of managers who have hiring authority. As a result, the recruitment process uses no standard sources and methods, the selection is primarily subjective, and orientation lacks substance and uniformity. If policies and procedures exist, they may be outdated or may violate labor laws. The practitioner needs to know the current situation, however, in order to effect change.

Organization Charts and Personnel Rosters

.04 The types and numbers of positions in an organization and its structure usually have a significant bearing on policies and procedures for recruitment, selection, and orientation. This information may also reveal sources of personnel problems.[2]

Adequacy of Staffing

.05 The practitioner examines positions that have significantly high turnover or that are low in productivity or high in error or waste. Causes of these problems may be inadequacy or absence of job descriptions, insufficient skills of the assigned personnel, or understaffing. Improved recruitment and selection techniques or perhaps other changes may be needed to reduce turnover.

Capabilities of Management and Key Personnel

.06 If senior management lacks confidence in key personnel, the perceived weaknesses and desired strengths can provide clues about changes needed in the recruitment, selection, and orientation policies and practices. The limitations of employees responsible for hiring may cause significant personnel problems. The practitioner therefore needs to assess their skills to determine whether hiring responsibilities need to be shifted.

Growth Objectives

.07 The practitioner studies the client's plans for growth to determine whether recruitment and selection activities are appropriate for meeting future personnel requirements.

.08 Personnel problems are sometimes attributable to recruiting and selection delays. The delays may stem from an inadequate system of reporting current and prospective vacancies, new positions, and other information the human resources staff needs in order to hire staff in a timely way.

Competitive Information

.09 The inability to recruit appropriate personnel may result from local or industry competition. Knowledge of the competition and their compensation rates, benefit programs,

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[2] Information on helping clients improve their organization is available in section 33/100, "Organizational Structure."

recruiting programs, and related information will help in formulating changes needed to attract qualified personnel.

Morale Level

.10 If a morale problem exists, the practitioner determines its root causes. Poor morale not only produces high turnover, but also causes prospective employees who are familiar with the organization to ignore recruitment efforts.

31/120 ENGAGEMENT UNDERSTANDING

.01 After defining the scope of the work to be performed and determining appropriate fees, the practitioner develops an understanding with the client. In a letter, the practitioner outlines this understanding of the engagement's scope, objectives, expected benefits, and fees. An illustrative engagement letter is included as exhibit 31A-1 in appendix 31/A, "Case Study: Developing a Recruitment, Selection, and Orientation Plan for ABC Company."

31/125 ENGAGEMENT OBJECTIVES AND BENEFITS

.01 The objectives of the engagement generally are to define or revise, document, and establish formal policies and procedures for employee selection, recruitment, and orientation. As a result of the engagement, the client will have clear policies and procedures that it can apply uniformly. All sources of candidates for employment will be documented for future reference. Clear policies and procedures will also facilitate the process of assessing these candidates. For example, recruiters will be able to compare each candidate's qualifications with specific job requirements and base their final selections on relevant criteria. Finally, a well-designed training program will increase employee effectiveness by providing information about organizational and departmental objectives, the firm's culture, and management's expectations.

31/130 ENGAGEMENT APPROACH

Fact-Finding

.01 In the initial phase of the engagement, practitioners collect information about the client's current recruitment, selection, and orientation policies and procedures that they did not get during the preliminary survey. This information includes all documents the client uses to orient new personnel. Many of these documents, such as job descriptions, the employee handbook, maps of facilities' layouts, and policy and procedure manuals, may be in print.

.02 Additional information that practitioners document which may not already be in print includes—

- A brief history of the company. This history describes the company's mission; its key future plans, beliefs, and principles; its position in the industry; its founders; and its current organization and key executives.

- Company training policies, including the training process, content, and sequence.

- The employee evaluation process and its frequency.

- The process for management follow-up with a new employee.

.03 The practitioner's fact-finding will include conducting interviews, soliciting information with questionnaires, reviewing the use of forms, and observing the activities of client personnel involved in recruitment, selection, and orientation.

Assessing the Current Recruitment, Selection, and Orientation Process

.04 After gathering information during the fact-finding phase, the practitioner reviews the client's current policies and procedures. The following guidelines for effective recruitment, selection, and orientation programs will help the practitioner assess the policies and procedures and formulate recommendations for client management.

.05 **Recruitment.** The recruitment process will be effective if the description of job requirements is accurate and clear, suitable candidates are available, and a method for authorizing the process is in place.

.06 *Defining job requirements*. When a client identifies a need for personnel, it also needs to describe the job and its requirements. At a minimum, the description needs to include a summary of the work to be performed and the performance standards, the reporting relationships, compensation, the required equipment skills and technical knowledge, the desired levels of education, experience, and skills, and any other information needed for recruiting an appropriate candidate.

.07 The client can use the job description to evaluate the work being performed by the incumbent or a new hire. If the description is effectively prepared, it will be perfectly clear to the employee. During the final stages of the recruitment process, the prospective employee reviews the description. This final review ensures that the employee is not surprised by performance requirements.

.08 *Locating candidates*. Current employees are an excellent source for qualified candidates. Promoting employees or filling jobs from their ranks fosters high morale. The client also benefits because current employees usually understand the organization and can contribute in the new position quickly without incurring the costs associated with hiring new personnel.

.09 In addition, current employees may know qualified candidates whom they can refer to the recruiter. If the client is unable to promote a current employee or locate a candidate from employee referrals, the company could use an outside source such as a personnel agency or an executive search firm. These firms provide the expertise and resources to locate qualified candidates. Practitioners need to be aware that such firms provide these services on the basis of a variety of fee arrangements. The primary disadvantages of these firms, however, are greater recruitment costs and the lack of understanding of the client organization's culture.

.10 Another possible source is contacts within the industry who frequently know who is available for various positions. If industry knowledge is important, such contacts can be a good source. The client can also recruit industry-knowledgeable candidates by placing advertisements in selected trade magazines and other periodicals. Although these sources are specialized, they usually reach larger audiences. This approach, however, requires much time, which is a disadvantage when time is critical. Network sources, such as lawyers, bankers, and professional and civic organizations, may provide suitable candidates. Usually, candidates from a wider range of industries are available from network sources.

.11 Colleges and universities often have recent graduates and alumni available for employment. These sources, however, usually provide many candidates who lack the specific qualifications for the current position. Similarly, advertisements in newspapers will usually generate a large number of responses immediately, but this approach also requires a lot of time to sift through the responses to find a qualified candidate.

.12 *Initiating the recruitment process.* Depending on the size of the organization, the client begins the recruitment process by requisitioning the required personnel. If a personnel requisition form is used, its content is based on the job requirements. The requisition allows the individuals responsible for filling the position to begin their work. The requisition is also an authorization for recruitment expenses and future payroll expenses. In effect, it is a purchase order. Exhibit 31B-1 in appendix 31/B is a sample personnel requisition form.

.13 **Selection.** The recruitment process may generate a large amount of resumes. If, for example, a newspaper ad produces many resumes or a bank of resumes has been accumulated over a period of time, the client should exercise judgment in reviewing them and may also need to do some preliminary telephone screening.

.14 In addition to screening candidates carefully, the selection process involves conducting interviews, checking references thoroughly, and matching candidates to the position requirements. Testing sometimes is a suitable tool for selecting candidates. An effective selection process also includes established procedures for keeping records of interviews and for offering employment.

.15 *Classifying resumes.* In general, reviewers look for relevant job experience, stability, advancement and promotions, appropriate educational and general background, and an ability to present qualifications effectively. Some applicants who are suitable for one type of position or industry may be inappropriate for another. For example, a person employed twenty years with a single company performing the same function may demonstrate loyalty and stability but may be unsuitable for a general consulting position that requires job experience with various industries. An effective way to screen resumes is to classify candidates into several groups and sort their resumes as they are received. The recruiter may, for example, classify the resumes according to the following categories:

a. Candidates have current or immediate job experience in the same industry as the client and meet all other qualifications.

b. Candidates' current job experience is outside the client's industry, but they meet all other qualifications.

c. Candidates have partial or limited job experience outside the client's industry, but they meet other qualifications or have minor variances.

d. Candidates are unsuitable for the position.

.16 After compiling a list of candidates from the resumes, the client conducts preliminary interviews. A telephone call to the candidate may fill in any gaps and ascertain the candidate's interest in the position. The client asks specific questions based on the resumes and the requirements of the position.

.17 *Using applications.* Application forms should be appropriate for the company's business and requirements. Effective forms are easy to read, concise, and sufficiently spaced. Questions on the application must comply with federal regulations to avoid discriminatory practices and violations of personal rights. The client may mail applications to candidates to complete before the interview or they can be completed at the time of the interview.

.18 *Conducting interviews.* The next step in the recruitment process is for the client to interview selected candidates. The interviewer should be prepared with knowledge of the position, the organization, and the applicant's background and with questions.

.19 The interviewer puts candidates at ease by establishing a common ground, perhaps by reassuring applicants that they will not undergo the unpleasantness of a quasi-inquisition. If the interviewer develops this rapport, candidates usually are more communicative and more likely to give the facts needed for a thorough evaluation. The interviewer asks applicants the particular function they would like to perform and what aspects they particularly liked about their previous positions. This information helps to determine whether candidates will fit into the firm. The interviewer asks different questions that will give a complete picture of the candidate. The interviewer must be careful not to ask questions or make statements that might be construed to be in violation of federal, state, or local laws.

.20 In precise and simple terms, the interviewer tells applicants what the client expects of them and what job functions they will perform. Unrealistic expectations often cause job dissatisfaction and turnover. The interviewer gives applicants the opportunity to ask questions about the position. The types of questions and the way they are asked may provide a good deal of information about applicants.

.21 During the interview, the interviewer gathers all the information needed to make a final judgment. When in doubt, or when an applicant seems as interesting and qualified as previous applicants, the interviewer asks questions that will help make a decision. When definitely interested in a prospective employee, the interviewer tells the applicant this and what the next step is toward employment. If the applicant is inappropriate, the interviewer generally communicates this intelligently and tactfully in a letter shortly after the interview.

.22 The recruiter documents the results of the interview. This documentation makes comparisons of the applicants easier. The best time to record comments and observations is during the interview. If this may cause some tension or awkwardness during the interview, then the interviewer records observations immediately after the interview while they are fresh.

.23 *Testing*. Tests are a valuable tool for assessing a candidate's aptitude, experience, and motivation. Tests of aptitude, achievement, personality, interest, and general ability are available from many sources. Usually, the more reliable the test the more likely that an expert needs to administer and interpret it. To avoid lawsuits, the client ensures that all tests are structured for the position available and uses them solely for employment-related purposes. The practitioner recommends that the client get legal advice about employment testing.

.24 *Checking references*. After the final candidates have been selected, the next step is to check references with the candidate's consent. The client asks several questions in a reference check, such as those in exhibit 31B-2. The client needs to use good judgment about the reliability of a reference source. To avoid possible litigation, many former employers will provide only employment dates rather than evaluate the candidate.

.25 *Matching final qualifications*. After checking references, the client matches candidates' qualifications with the job description and the company's needs to identify two or three candidates best suited for the position. The client considers such items as experience, education, salary request, personal goals, travel distance to employment, strengths, weaknesses, test results, and personality. The client gives special attention to the candidates' ability to adapt to the culture of the company.

.26 *Offering employment*. After selecting the final candidate, the client establishes the compensation package, starting date, contract requirements, if any, and orientation program. When employment contracts are required, the client may wish to have the practitioner work with the client's attorney. Such contracts should be signed by both parties.

.27 An increasing number of companies now provide fringe benefits to new employees after a trial period before accepting them as permanent employees. New hires typically receive no fringe benefits, such as health and life insurance, for thirty days, accrue no sick leave and vacation until the end of the probationary period, and are eligible to participate in profit-sharing plans only after one year.

.28 *Keeping records.* The client should keep files on all candidates interviewed. The files contain interview questions and answers, resumes, applications, reference letters and telephone comments, test results, government employment tax and compliance forms, insurance applications, orientation checklists, job descriptions, and letters of offer.

.29 The client sends thank-you letters to unsuccessful candidates and keeps copies in the personnel files of these candidates. These files must be kept for a specified period, in compliance with current laws.

.30 **Orientation.** A well-designed orientation program is essential to effectively introduce new employees to the company and provide them with the best opportunity for meeting the company's expectations. In addition to training, the orientation program provides employees with information about the company, its facilities, their jobs, and policies and procedures, including guidelines for performance evaluation. The program also includes procedures for follow-up by supervisors to assess employees' progress.

.31 *Company information.* New employees should be given a description of the company's product or services, its mission statement, and a history of the company, including the background of its founders, important events in its history, and noteworthy pieces of corporate culture and legend. This description needs to include an explanation of company values or a list of principles. As appropriate, employees should also be advised about the company's position in industry, its major competitors, the current organizational structure, key executives, and future plans. A plant and office tour and introductions at appropriate organizational levels are also necessary for proper orientation.

.32 *Job information.* Each new employee receives a concise job description, which may include—

a. The duties to perform.

b. The frequency with which to execute each duty.

c. Cautions or special instructions required to execute each duty.

d. The method for measuring successful completion of tasks.

e. The position this position reports to and the frequency of reporting.

f. The positions reporting to this position and an overview of lower-level tasks.

g. Key reports used and generated.

h. Performance evaluation criteria.

.33 *Training.* The duration of the training portion of the orientation may vary greatly, depending on the position. To determine if training is adequate, the practitioner looks for evidence that employees receive the proper instructions (more than just following a supervisor for a day) in their duties. This training information may range from the very basic, such as proper telephone etiquette, to the very technical, such as instructions in operating a specific computer. In either case, the training should be well documented so that it is repeatable and easily understandable, particularly if it is for a position that the company uses heavily and fills frequently. The documentation indicates who does the training, when it is to be performed, and in what circumstances, and it needs to provide detailed steps that the incumbent will be able to follow.

.34 Other elements of the client's training function that the practitioner studies include the frequency of training and the effectiveness of trainers and of training methods and materials.

.35 *Policies and procedures manual.* A policies and procedures manual is an effective means of documenting and communicating vital information to employees. The policies section should clearly state company policy in all areas. The level of detail in the procedures section may vary, but should be at the task level where possible. If a manual or at least a compilation of policies is unavailable to employees, the company risks having employees perform tasks that are incompatible with the intent of management or outside the intended priority order.[3]

.36 *Evaluation procedures.* Employees value knowing the rules and guidelines under which their performance will be evaluated. A common problem in small businesses is the lack of a consistently understood and applied evaluation program. The practitioner needs to research the company's evaluation practices and solicit management's and employees' assessments of their fairness. The client company needs to document the evaluation process and its frequency and to use a standard evaluation form.

.37 *Workspace and supplies.* Another important part of orientation that the practitioner investigates is whether the employer informs employees about their workspace and the availability of supplies. The employer can make new employees comfortable by telling them the location of restrooms and eating facilities and showing them their own workspace. Providing appropriate supplies and tools and explaining procedures to requisition more are also important measures for quickly developing productive employees.

.38 *Staff follow-up.* Within the first few days or weeks, supervisors meet with employees to assess their progress at mastering their tasks and feeling comfortable in the workplace. Supervisors also correct any deficiencies in the training and provide feedback for future orientation sessions. If appropriate, the client may use other programs, such as big brother-big sister and peer counselor programs, to support new employees in the early stages.

[3] Additional information on developing policy manuals is available in section 30/100, "Assisting a Client in Developing an Employee Handbook."

Engagement Reporting

.39 **Interim Reports.** The practitioner meets frequently with company management to discuss findings, suggest proposed changes, and seek guidance. A review of personnel recruitment, selection, and orientation practices usually uncovers potentially sensitive issues. The practitioner addresses these issues with management as soon as they are identified and well in advance of the final presentation.

.40 Interim reports and status meetings with management and employees are also effective vehicles for gaining support for proposed changes of policies and procedures.

.41 **Final Report.** The product of an engagement to review or develop a company's recruitment, selection, and orientation activities is an oral or written report summarizing the practitioner's findings and recommendations. In the final report, the practitioner usually describes the client company's background, including its history in human resources administration. Then the practitioner gives an overview of the existing recruitment, selection, and orientation activities. In the overview, the practitioner assesses the current policies and procedures in general, identifies specific situations requiring attention, and describes their impact on the organization. The practitioner recommends recruitment, selection, and orientation policies and procedures, or revisions if they already exist. For example, a training program may need to be established to reduce the number of errors and high turnover of personnel. The practitioner includes cost-savings estimates in the discussion of recommendations.

.42 The practitioner may wish to broach the subject of follow-up assistance and other possible management consulting engagements at the time the final report is presented.

31/135 CONCLUSION

.01 In many small businesses with only a few employees, the owner-manager performs recruitment, selection, and orientation activities with a minimum of formality. Often, selection and recruitment activities are based on intuition rather than on documented policies and procedures. Orientation for a new employee may be only a short conversation with the owner-manager or with a current employee who is sympathetic about a new colleague's lack of knowledge about the organization or job requirements.

.02 This casual approach to personnel management may be adequate for very small businesses but is usually counterproductive for larger entities with a more active personnel function. Failure to adopt formal recruitment, selection, and orientation policies and procedures can lead to poor staff productivity, high turnover, difficulty in filling personnel needs, and legal action. Practitioners can provide a valuable service by helping clients improve weak recruitment, selection, and orientation policies and procedures or helping establish them if they do not exist.

APPENDIX 31/A

CASE STUDY: DEVELOPING A RECRUITMENT, SELECTION, AND ORIENTATION PLAN FOR ABC COMPANY

Background

The President of ABC Company, Jack Smith, calls Ken Kane, a partner in Kane and Jones, a local CPA firm, to ask for assistance in hiring an accounts payable supervisor. The company has previously done its hiring without outside assistance.

In his discussion with Smith and from his knowledge of ABC, Kane realizes that this client has had four different accounts payable supervisors during the last few years. In fact, the company seems to have high turnover in several staff positions.

Kane agrees to assist the client but suggests a lunch meeting the following week to discuss the position requirements in greater detail. He also plans to discuss whether the client's personnel problems are related to the lack of a recruitment, selection, and orientation plan.

During the meeting, Smith informs Kane that the reason for the high turnover of employees is that he cannot seem to hire qualified candidates. He explains that his hiring process in the past has been to place an ad in the local newspaper and have the respondents call for an interview. He interviews the candidates himself and typically chooses a candidate he believes is most qualified. He rarely discusses the candidate's qualifications in great detail because he lacks knowledge of the technical requirements of the job. Instead, he bases his decision mainly on instinct.

The company has a qualified controller, Robert Mason, who oversees the accounting department staff. However, Smith never asks him to sit in on the interviews, but does ask him to accept the candidate that he selects. Although the accounts payable supervisor reports to Mason, Smith has never given him the authority to assist in recruiting and selecting any accounting department staff.

Kane agrees to assist in recruiting and selecting an accounts payable supervisor. However, he informs Smith that the company apparently has a larger problem in its overall inability to hire and retain competent staff. Kane proposes that Smith consider an engagement to improve the process of recruiting, selecting, and orienting all personnel. By improving the process, the company will increase the likelihood of hiring and retaining capable personnel who will accept the company's philosophy and will be compatible with other personnel.

Based on his knowledge of the company and his meeting with Smith, Kane prepares a letter outlining the terms of the engagement (see exhibit 31A-1). On receiving the signed letter, Kane proceeds with the engagement.

Engagement Approach

ABC Company has no recruitment, selection, and orientation procedures. During meetings with Smith and the company's key staff, Kane advises Smith that, in addition to the procedures, the issue of job information needs to be addressed in order to institute a recruitment, selection, and orientation program.

Job Information

Effective recruitment and selection requires that each position in the organization and its qualifications be clearly defined.

Organization chart. Kane explains to Smith that each staff person needs to know to whom they report and who reports to them. An organization chart would clearly outline areas of responsibility and authority as well as illustrate job advancement opportunities. ABC Company's organization chart is shown in exhibit 31A-2.

Job descriptions. Kane advises Smith to have detailed job descriptions for each position on the organization chart and to update them periodically. The descriptions will be helpful in selecting employees and in acquiring temporary help when an employee is sick or disabled.

Job descriptions outline the basic areas of responsibility for the job and identify to whom the employee reports, for whom they are responsible, and the reports generated, their timing, and the recipients. Kane develops detailed job descriptions after discussions with personnel in all administrative and accounting positions in the company, including the accounts payable supervisor. (See exhibit 31A-3.)

Qualifications. Kane and Smith agree that minimum qualifications need to be established for each staff position. The requirements are used not only for recruitment but also for retention purposes. The experience level, skill level, performance standards and requirements, and compensation are among items to consider in preparing position qualifications.

Smith and Mason, after several discussions, determine that the accounts payable supervisor requires three years' experience in accounts payable, preferably in the same industry, and some computer experience. The initial salary for the position will range from $18,000 to $20,000 annually.

By preparing an organization chart, job descriptions, and job qualifications, the company can determine each staff person's area of responsibility and authority, specific job activities, proper salary range, and qualifications for each position. Consequently, a process is in place for client management to judge job candidates properly and hire competent staff. Furthermore, the client now has a basis for evaluating current personnel for changes to new positions within the company.

Candidate Sources

Mr. Kane advises that each job position may involve different sources for candidates. For example, the best source for recruiting a chief financial officer may be a recruiting firm or an ad in a regional or national journal or newspaper. For an accounts payable clerk, however, the best source may be an advertisement in one or several local newspapers.

The client agrees, in this instance, to place an ad in a local paper. The job description provides the copy for the ad. The ad is as concise as possible not only to reduce the expense but also to make it easy to read and more likely to attract readers. The ad indicates the geographic location of the client, thereby implying a further qualification of the applicant. In addition, the ad discloses that a CPA firm is assisting the client in the search for a candidate and requests a resume with a salary history.

Candidate Selection

Kane recommends that Mason and other department heads be given the responsibility and authority for their staff and brought into the recruitment process.

Mr. Kane advises the client that the method of identifying candidates and selecting the eventual employee needs to be objective rather than subjective. The selection process for each position, including the roles played by all ABC personnel involved in the process, needs to be documented.

Kane and Smith agree to use the following steps to select the accounts payable clerk:

1. Kane will screen resumes.

2. Kane will conduct initial interviews.

3. Kane and Mason will check references.

4. Smith and the controller or supervisor will conduct the second interview.

Resume screening. Kane warns Smith that the number of responses to an ad can be overwhelming and that it may be neither possible nor desirable to interview all applicants. Consequently, Kane screens the resumes, using a few select criteria to determine which applicants to interview and to reduce the applicants to a manageable number. In the case of the accounts payable supervisor, Kane determines that the criteria include salary range and experience in accounts payable, in the industry, and with computers.

Kane finds it helpful to develop a grading system to assist in the screening process. He sorts the resumes for an accounts payable supervisor into the following four categories:

1. Candidates have current or recent job experience as an accounts payable clerk in the same industry as the client's and meet all other qualifications.

2. Candidates have current accounts payable experience, but not in the client's industry. They meet all other qualifications.

3. Candidates have partial or limited job experience as an accounts payable clerk, but not in the client's industry. They meet other qualifications or have minor variances.

4. Candidates are unsuitable for this position.

The plan is to exhaust each group before interviewing the next group. Each applicant to be interviewed is called for an appointment.

Initial interview. Kane and Smith agree that the initial interview is a two-way exchange: Not only do applicants need to sell themselves to the recruiter, but also the recruiter, in this case, Kane, needs to sell the client and the position to the applicants. Kane begins each interview with an introduction and explanation of the interviewing process. To sell the position to the applicants, Kane enthusiastically describes the company and management and reviews the job description and responsibilities.

Initial interviews should be conducted in a manner that allows the interviewer to evaluate the applicant. Therefore, in addition to asking questions related directly to the available position, Kane asks the following questions:

- Why are you currently looking for a job?
- What was your previous position?
- To whom did you report?
- What kind of information was required?
- What is your experience in staff supervision?
- What is your background in computer use?
- Why did you leave your past jobs?
- What responsibilities and functions do you seek in your next job?
- What accomplishments are you most proud of?

Kane avoids asking questions that require only a "yes" or "no" response. He omits all personal questions, such as those about age, marital status, family plans, and so forth. Regardless of the questions, the interviewer will be unable to evaluate confidence, motivation, and insight perfectly. Therefore, Kane is sensitive to the way each applicant answers questions. Kane solicits questions from the applicants about the job description. He considers whether the questions are well thought out and articulate and if they relate solely to compensation and other benefits. He also notes whether there are any questions at all.

Kane ends each interview by explaining that the decision about which applicants to call back for second interviews will be made at the conclusion of all the interviews. In the case of one especially promising applicant, however, Kane arranges the second interview immediately.

Reference checking. Kane advises Smith that checking references is a very important part of the hiring process. It is an opportunity to learn first-hand how applicants have performed in the past in similar positions and how they interacted with other employees.

After Kane selects suitable candidates for the second interview, Mason, the controller, checks references. Mason obtains references from previous employers and their CPAs and from employees whom the applicant had supervised. He is unable to get current employers' references because of confidentiality constraints, which makes checking other references even more important.

Mason prepares a checklist questionnaire (exhibit 31B-2) to ensure that each reference source comments on the same questions. To the checklist, he adds the following questions:

- How would you characterize the applicant's work habits and abilities?
- What are the applicant's weak points?
- Did the applicant display leadership abilities?

Most reference contacts hesitate to criticize the candidates. Consequently, most phone calls are very short. For these reasons, Mason finds it important to listen not only to the substance of the answer but also to the way in which the contact phrases it. Occasionally, a reference contact refuses to give information over the phone, but asks that a letter be written instead. In the letter, Mason uses the same questions and guidelines, bearing in mind that a written reply probably will reveal less than a phone conversation.

Second interview. After Mason checks the references, he and Kane meet to reevaluate each remaining candidate. The highest-ranking applicants are called for a second interview at the company. Smith is present at these interviews along with the controller. Because all applicants meet the qualifications standards established, the interviewers assess their long-term potential and temperament.

Orientation

The candidate selected by Smith and Mason accepts the accounts payable position and agrees to start in two weeks.

ABC Company has no orientation program. Normally, new employees are introduced to their immediate co-workers, complete personnel and payroll documents, and then start to work. Working with Smith and Mason, Kane develops an orientation program that Mason uses when the accounts payable supervisor begins work.

After a brief meeting, Mason introduces the new supervisor to other accounting department staff. Then, together they review the new hire's job description. Mason provides the supervisor with the following documents, which will routinely be provided to new employees:

1. A brief history of the company and an organization chart
2. A telephone directory of all personnel
3. Information on the location of office supplies and instructions on how to obtain them

Mason also gives the new supervisor a description of the location of all accounts payable files and records.

The new supervisor meets with the payroll clerk to complete personnel and payroll documents. Then, during a brief tour of the office and plant, Mason introduces the new employee to the staff and discusses ABC Company's products. At the end of the day, and again at the end of the week, Mason meets with the new employee to evaluate her acclimation to the new position.

Engagement Report

At the conclusion of the engagement, Kane presents Smith a written report that includes a description of current ABC Company recruitment, selection, and orientation activities. After summarizing the problems ABC Company is encountering in these activities, the report recommends revisions to current recruitment, selection, and orientation activities. Kane provides documentation to support the proposed changes, including an organization chart, job descriptions and requirements for all positions, and a list of sources for job candidates. Kane also estimates the costs savings for ABC Company if it implements the recommendations.

Exhibit 31A-1

Engagement Letter—Development and Implementation of Recruitment, Selection, and Orientation Plan

Kane and Jones, CPA
One Main Street
Anytown, USA 00000

Mr. Jack Smith
ABC Company
123 First Street
Anytown, USA 00000

Dear Mr. Smith:

We are pleased to submit this letter outlining the terms of our engagement to develop a recruitment, selection, and orientation plan for ABC Company personnel and to further assist you in the hiring of an accounts payable supervisor.

Engagement Objectives

The objectives of the engagement are to develop, document, and establish formal policies and procedures for employee recruitment, selection, and orientation and to recruit an accounts payable supervisor.

Engagement Benefits

When we complete this engagement, ABC Company will realize the following benefits:

1. Clear policies and procedures will replace vague ones.

2. Sources of personnel will be documented so that they may be used repeatedly.

3. The selection of job candidates will be easier and more reliable because you will have established qualifications to compare with specific job requirements.

4. Employee morale will improve because management will be better able to orient personnel to the company's objectives and culture, and management's expectations.

5. A qualified individual will fill the accounts payable position.

Engagement Approach

We will use the following step-by-step approach:

1. Prepare an organization chart.

2. Develop job descriptions for all employees.

3. Establish job qualifications for each position.

4. Identify sources for job candidates.

5. Develop an evaluation and selection process for candidates.

6. Develop an orientation program for new employees.

7. Assist in recruiting, selecting, and orienting a new accounts payable supervisor.

Engagement Reporting

I will advise you throughout the engagement on the progress in achieving your objectives and on other matters. At the conclusion of the engagement, I will provide you with a written report that documents the recruitment, selection, and orientation program.

Engagement Staffing

I will conduct the engagement. We will require several meetings with you and members of your staff during the engagement. I will provide ample notice of these meetings. The involvement of you and your staff is imperative for the success of the engagement.

Fees

Our fee is based on the time required at our standard hourly rate. We estimate the cost of the engagement at $X,XXX (plus any out-of-pocket expenses). We will submit invoices monthly.

Please acknowledge acceptance by signing one copy of this letter and returning it to us. I appreciate this opportunity to propose this engagement and look forward to working with you and your staff.

Sincerely,

____
Ken Kane, CPA

Approved by _________________________
President

____
Date

Exhibit 31A-2

ABC Company Organization Chart

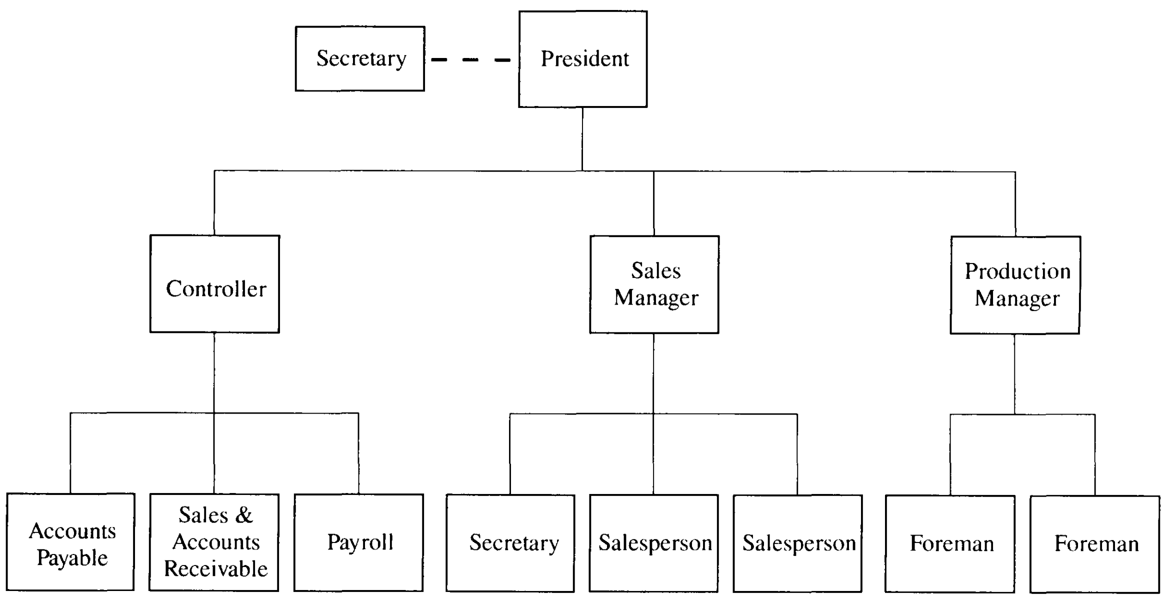

Exhibit 31A-3

ABC Company
Position Description
Accounts Payable Supervisor

Position Duties

1. Maintains records of amounts owed
2. Verifies invoices
3. Computes discounts
4. Codes expenses
5. Prepares vouchers for payment
6. Totals accounts
7. Prepares account statements
8. Prepares other reports, as required

Position Reporting

Reports to the Controller as required. This is an exempt position.

Position Responsibilities

Supervises two non-exempt accounts payable clerks with generally similar occupational skills. Assigns work in accordance with schedules set by the Controller.

APPENDIX 31/B

ILLUSTRATIVE FORMS

Exhibit 31B-1

Sample Personnel Requisition

To Personnel Officer Date ____________

From ______________________ Location ______________

Replacement for ____

Position to be filled _________________________ Date needed by ______________________

To be supervised by ____

Check one: ________ Permanent Position ________ Temporary Position

How long needed? ________

Necessary qualifications ____

____

____

____

Job duties ____

____

____

Salary range ____

Persons who will interview applicants ______________________________

____

____

____

Do not write below this line

Filled by ____________________ Date ____________ Source ___________________________

Grade or rate _________________________

Exhibit 31B-2

Sample Telephone Reference Script

Applicant ______________________ Person contacted ______________________

Company ______________________ Title ______________________

Phone No. ______________________

1. Was applicant employed by you? Yes ☐ No ☐
2. What were the dates of employment? From ______________ to ______________
3. What was the job classification? ______________________
4. How would you rate attendance? ______________________
5. How would you rate punctuality? ______________________
6. How would you rate job performance? ______________________
7. Were there any promotions? _______ Can you describe circumstances of the change?

   ____

   ____

   ____
8. To what degree was there a need for supervision? ______________________
9. What success or lack of success was there in working with other people, and the reason?

   ____

   ____

   ____

10. What was the reason for leaving? ______________________________

____

____

11. Would you rehire? (If not, why not?) ______________________________

____

____

<u>Additional comments</u>

______________________ ______________________________

Date Personnel Department

BIBLIOGRAPHY

Carroll, Stephen J., and Craig E. Schmeir. *Performance Appraisal and Review Systems*. Glenview, Ill.: Scott, Foresman and Company, 1982.

Chusmir, Leonard H. *Matching Individuals to Jobs*. New York: AMACOM, 1985.

Dobrish, Cecelia. *Hiring the Right Person for the Right Job*. New York: F. Watts, 1984.

Dreher, George F., and Paul R. Sackett. *Perspective on Employee Staffing and Selection*. Homewood, Ill.: Richard D. Irwin, Inc., 1983.

Famularo, Joseph J. *Handbook of Personnel Forms, Records, and Reports*. New York: McGraw-Hill Book Company, 1982.

________. *Organization Planning Manual*. New York: AMACOM, 1979.

Gibson, Roxanne M. *Assisting Clients in Developing an Employee Handbook*. New York: AICPA, 1990.

Greenwood, Mary. *Hiring, Supervising, and Firing Employees: An Employer's Guide to Discrimination Laws*. Wilmette, Ill.: Callaghan, 1987.

Lanz, Karen. *Hiring and Firing: Employing and Managing People*. London: Pitman, 1988.

McCormick, Ernest J. *Job Analysis: Methods and Applications*. New York: AMACOM, 1979.

Rock, Milton L. *Handbook of Wage and Salary Administration*. New York: McGraw-Hill Book Company, 1972.

Sharp, Arthur G. *The Professional's Guide to In-house Recruiting*. Yardley, Pa.: International Information Associates, 1990.

Stanton, Erwin. *Successful Personnel Recruiting and Selection*. New York: AMACOM, 1977.

Stidger, Ruth W. *The Competence Game: How to Find, Use and Keep Competent Employees*. New York: Thomond Press, 1980.

Van Doren, Glenn H., and Stephen D. Nadler. *Management Advisory Services Manual*. New York: Warren, Gorham & Lamont, 1987.

Wendover, Robert W. *Smart Hiring: A Complete Guide to Recruiting Employees*. Englewood, Colo.: National Management Staff, 1989.

Yate, Martin John. *Hiring the Best: A Manager's Guide to Effective Interviewing*. Boston: B. Adams, 1988.

________. *Hiring the Best: How to Staff Your Department Right the First Time*. Holbrook, Mass.: B. Adams, 1990.

32/100 DEVELOPING MANAGEMENT INCENTIVE PROGRAMS

CONTENTS

32/100 DEVELOPING MANAGEMENT INCENTIVE PROGRAMS

32/105 SCOPE OF THIS PRACTICE AID

.01 For most businesses, the demands of competition cause their success to hinge largely on the effectiveness of their human resources, particularly management personnel. Many clients may therefore wish to develop an incentive program that encourages personnel to increase sales and productivity, helps to retain key managers who may have outside offers or other attractive opportunities, and attracts and motivates qualified individuals. Other important benefits of an incentive program include (*a*) developing goals for future managers, owners, or successors; (*b*) providing a good management team atmosphere with goal-oriented objectives; and (*c*) encouraging development of new products and markets.

.02 This practice aid provides information to help practitioners develop a management incentive program for a client. It includes guidance in reviewing the client's present management compensation, identifying available alternatives, designing an incentive compensation plan, and assisting in implementing and monitoring the plan. This practice aid may also help practitioners assist a client in modifying existing management incentive programs. Employers may want to consult legal counsel about whether an incentive plan may be considered a contractually guaranteed promise of future payment.

32/110 OBJECTIVES OF INCENTIVE COMPENSATION

.01 Any discussion of incentive compensation first needs to place it in the context of the total compensation to managers. Compensation can be paid to managers in five forms:

a. *Base pay or salary.* The amount regularly paid to do the job as defined.

b. *Necessity benefits.* The fixed cost of compensation intended to protect managers from catastrophe.

c. *Incentive bonus.* The amount paid for achieving established goals and objectives.

d. *Long-term or capital-accumulation incentives.* Amounts paid to reward the long-term efforts of managers and provide for their transition to retirement from the organization.

e. *Perquisites.* Individual benefits used to motivate and reward a select group of managers.

.02 The latter three forms are often considered incentive compensation. Each form, however, has a different purpose and serves a distinct need. Without a doubt, if managers receive pay and benefits commensurate with the marketplace, incentive bonuses are most effective in motivating them to greater productivity. Before choosing the most appropriate form of incentive compensation, the practitioner needs to clearly determine management's objectives.

.03 At its best, incentive compensation encourages managers to execute the strategies and to realize the objectives of the company. Therefore, the best guideline for designing an incentive compensation system is: Design the incentive compensation plan to get managers to put fulfillment of the company goals and objectives first.

.04 Effective incentive compensation planning begins with the setting of high quality company goals and objectives. When incentive compensation supports the company's strategies for reaching corporate goals, it itself is a clearly defined strategy of accomplishment.

.05 If an incentive compensation system is to be effective, the goals and objectives need to be practical and worthwhile: They need to be capable of being translated into the work to be done, the performance levels to be achieved, and the standards against which performance is to be measured. Key management people need to respect corporate targets and to know what their roles are in reaching those objectives, as well as how they are doing and what criteria will determine if they receive incentive compensation.

.06 To identify the company objectives that will determine the performance measures used in the incentive compensation plan, the practitioner gathers the following information about the company:

- How is the company unique among its competitors? What are the factors that will establish, preserve, and extend that uniqueness?
- What does the company have to do especially well to succeed in its business?
- What is the company's competitive advantage? What key decisions must be made in order to support the company's competitive advantage?
- What information does the company need in order to make its key decisions? What is the quality of the information it depends upon to excel?
- What managers should make key decisions and how much latitude should they have?
- What control do managers at different levels need to ensure that people make the right decisions to maintain the competitive advantage?

.07 The answers to these questions will help to define the reward system and measures that will direct people to the performance the company wants in order to maintain its competitive advantage. The clearest signals about what the company wants are the rewards given for achieving the established objectives. The more management desires above-normal performance, the greater the reward for that performance needs to be. A good incentive system, like a good leader, will get people to perform in extraordinary ways.

32/115 ENGAGEMENT CONSIDERATIONS

.01 In determining whether to undertake an engagement to develop or to review an incentive compensation plan for a client, a practitioner considers the circumstances surrounding the client's request. During initial discussions, the practitioner learns the following information:

- Why the prospective client is considering an incentive plan
- Whether the prospective client previously engaged an accountant and, if so, why another is being sought
- Who referred the prospective client
- How long the prospective client has been in business
- If the client has any other current business ventures or had earlier ones
- What the nature of the business is
- What the financial history of the business is
- Who the owners are
- If the prospective client wants to establish a continuing relationship with the practitioner or needs one-time-only assistance

.02 Before proceeding with the engagement, the practitioner answers the following questions:

- Are the business owners committed to the concept and potential cost of an incentive program?
- Has the client already established a sound basic compensation plan?
- Are managers likely to be motivated by an incentive program?
- Is the business conducive to an incentive program?
- Can the client's objectives be achieved cost-efficiently?
- Does the practitioner have the competence and the necessary resources to complete the engagement?
- Would the acceptance of the client comply with professional standards and the practitioner's policies?

32/120 UNDERSTANDING WITH THE CLIENT

.01 After the practitioner and client agree to an engagement, the parties reach an initial understanding about services, including the objective, scope, and conduct of the engagement. The practitioner needs to prepare an engagement letter describing the services to be rendered, the manner in which they will be performed, and the estimated fee. At the outset, the practitioner clearly explains that the desired results of an incentive plan are not guaranteed. Perhaps the practitioner may conclude that a management incentive plan is not feasible. The practitioner also needs to state that the fee for the engagement does not depend upon the outcome of the analysis or the results of the incentive program.

.02 The practitioner may also do the following in the engagement letter:

- Describe the request for the engagement.
- Identify the client's need for a management incentive plan.
- Cite the potential benefits of a management incentive plan.
- Explain the scope of services to be provided. (A phase-by-phase analysis of how the management incentive plan will be developed, including feedback to the client on the engagement's progress, and a statement of the client's responsibilities are most appropriate.)
- Identify the practitioner's personnel assigned to developing the management incentive plan.
- Identify management's liaison for the engagement, if any.
- Explain how the fee was derived, including the manner of billing and expected payment information.
- Refer to the report on the management incentive plan the client will receive, including the anticipated delivery date.

.03 Exhibit 32-1 in appendix 32 provides a sample engagement letter.

32/125 ENGAGEMENT APPROACH

Gathering Facts

.01 Practitioners obtain information about the business and its personnel by interviewing the owners and managers. They also obtain any written information about existing management compensation. A listing of the information to be gathered is on the following pages. Practitioners are careful to gather facts in a manner that stresses inquiry and analysis and avoids raising unreasonable expectations of salary adjustments or an incentive program.

Facts to Be Gathered

General company information	A profile of the company's products or services
	A description of how, when, and where the client sells its products or provides services, including information on customer purchasing practices and needs
	The number and types of management employees
	The sources and amounts of capital
	Current and previous years' financial statements
	Strategic plans, forecasts, and projections
	Management and organizational structure
Compensation system	A listing of each key manager's base compensation
	A listing of all benefits and perquisites provided to each manager
	A description of any existing incentive compensation plans and the calculation methods
	The incentive compensation amount received by each manager during the past two years
Industry background	Industry profile reports
	Published market studies
	Comparative industry financial statistics
	Comparative industry management compensation and benefits data
Financial and operating management information	Financial data received and financial controls employed by information management
	Operating information used to make key management decisions

Facts to Be Gathered (cont.)

Owner information	Current management compensation
	Owner's personal long-term goals
	Owner's short-term and long-term goals and expectations for the business
	Owner's perceptions of key management's current compensation
Key manager information	Each key manager's short-term and long-term goals and expectations
	Key managers' perceptions about the effectiveness of current incentive plans, if any
	Key managers' perceptions of owner's commitment to an incentive program
	Elements of an incentive program that key managers would like adopted
	Areas over which key managers have direct control
	Areas over which key managers feel they do not have, but need, control to reach their assigned objectives
	Key managers' perceptions about barriers to reaching their objectives
	Critical financial and management information that key managers believe is lacking

Evaluating Information

.02 After collecting background information, the practitioner evaluates the facts relevant to management compensation. The practitioner ascertains that the client's existing compensation plan of base pay and necessity benefits is a solid foundation on which to build an incentive plan. If the basic compensation structure is unsound and uncompetitive, the practitioner may consider a separate engagement to establish a more appropriate compensation plan. After evaluating the compensation plan, the practitioner addresses the following areas.

.03 **Financial Circumstances.** The practitioner determines the client's financial condition by reviewing recent financial statements and prospective financial information. The practitioner also compares the client's condition with those of local competitors and with industry norms. The practitioner analyzes cash flow and evaluates the impact of the plan on financial statements. Clients with limited financial resources may need to adopt long-term or capital-accumulation incentive programs that feature profit sharing, deferred compensation, or stock ownership.

.04 **Owner's Goals.** The practitioner considers if the owner's goals for personnel and key management compensation are realistic given the company's financial circumstances, industry norms, and local competitors' positions. The practitioner needs to counsel an owner whose goals are inappropriate.

.05 In certain forms of incentive programs, key financial information may provide the goals and performance measures. If the owner wishes to keep the necessary information confidential, an air of secrecy will surround the incentive system and could contribute to its failure.

.06 **Key Managers' Goals.** Since the essential purposes of a management incentive plan are to motivate and retain key management personnel, the practitioner needs to be particularly sensitive to that group's needs and desires. The practitioner determines which compensation and benefit features have the broadest appeal, since the best incentive programs must serve all key management personnel, not just a select few.

.07 The practitioner compares these features to each manager's goals and personal circumstances to determine which may only satisfy them and which may motivate them to improve performance. Finally, the practitioner determines if key managers' financial goals are reasonable, given the client's current and anticipated financial circumstances.

Establishing Goals and Performance Measures

.08 The most effective incentive programs establish performance measures or benchmarks that trigger various rewards. They also provide for annual review and modification of the entire program, if necessary. Of course, measuring performance against goals needs to be time and cost efficient.

.09 **Goal Setting.** In a goal-oriented program, incentives need to be based on goals over which a key manager has direct control, such as goals set for the department, unit, store, or division. Sometimes, however, a portion of the incentive reward may depend on achieving a group goal that a key manager contributes to, but does not have complete control over, such as net income, increase in profits, and overall performance. In some circumstances, the only way to determine an incentive amount is to relate it to the achievement of overall entity goals. The program must strive to balance a manager's narrow interests with the company's overall goals. This balance will prevent managers from concentrating on personal goals while ignoring other elements of the business operation. Involving managers in setting the goals for which they will be responsible often encourages better performance.

.10 Incentive goals should be realistic, achievable, and based on labor market and industry norms. Goals that are too high will frustrate the participants; goals that are too low are counterproductive and not cost effective. To be motivated, the managers need to believe that—

- The established goals are fair and achievable.
- They have control over the effort required to achieve the goals.
- The rewards are worth their extra effort.
- The extra effort will affect results significantly.

.11 To be achievable, goals should be specific enough to answer such questions as: "how much?" "how well?" "by when?" "with what accuracy?" "as compared to what?" and "in cooperation with whom?" A range of goals and associated awards are usually desirable.

.12 **Reporting Performance Measurements.** The goals used in an incentive program need to be readily measurable. This is achieved by developing measurement statistics that quantify progress toward goals and clearly contrast performance with established objectives. To generate enthusiasm, progress reports need to be made frequently, if practical, as part of existing management and financial reports. This also allows goal-performance measurement and reporting to be part of the company's normal management information flow. Adequate internal reporting and management information systems need to be in place to accurately report and track the data necessary to implement the plan. If such a system is lacking, the practitioner needs to analyze the costs and benefits of implementing new systems. Goals need to be reviewed and updated periodically, usually annually.

Selecting a Program

.13 Management incentive programs can be classified into three categories: bonuses, long-term or capital-accumulation programs, and perquisites. The practitioner considers which of these programs is appropriate for the key managers. Additionally, in evaluating the feasibility of the incentive programs, the practitioner evaluates the tax effect on both the company and the employee. The practitioner needs to consult legal counsel about the enforceability of incentive programs as guaranteed contractual agreements with employees and the implications of programs that transfer or restrict ownership in the company.

.14 **Bonus Programs.** Bonus programs based on established goals and objectives are among the most widely used methods of incentive compensation. Regrettably, many are ill-conceived and fail to provide incentives that encourage attaining specific goals. A well-thought-out program incorporates realistic goals with affordable rewards, thereby benefitting key managers as well as owners.

.15 Setting limits or ceilings on performance bonuses allows better cash-flow and budget planning and prevents managers from making more than owners or high-level administrators. Limits will also protect the company from the risk of paying overly large bonus compensation when exceptional performance will only marginally increase the value of the company.

.16 An argument against setting limits is that people should be rewarded commensurate with even the highest levels of performance because both the employee and the company will benefit, if the system is well designed. In addition, limits may suggest management manipulation and, therefore, may contribute to low morale and distrust.

.17 The practitioner strongly considers developing a program that does not set limits. When limits are not used, record keeping and evaluation of the program need to be frequent and timely.

.18 Although frequent payment of bonuses (monthly or quarterly) is desirable in many businesses, rewards for overall annual performance help prevent manipulation of short-term benefits. The plan needs to encourage highly compensated managers to make a long-term commitment to the company.

.19 Finally, owners need to understand that once they offer bonus rewards, withdrawing them may cause resentment. To avoid this pitfall, they need to consider extremely carefully the implications of giving rewards.

.20 **Long-Term or Capital Accumulation Incentives.** When considering the use of company stock as part of an incentive program, the practitioner needs to address the issue of restricted transfer and redemption. Stock-option incentives can provide an influx of capital to the company and, along with performance shares and stock appreciation rights, have the advantage of not requiring current cash payments. Disadvantages of stock options and performance shares are that they can dilute ownership in a closely held company, and that they may ultimately require redemption of the stock. When recommending stock as an incentive, the practitioner needs to raise these issues with the client and legal counsel.

.21 *Stock options.* A stock-option program gives managers the right to purchase stock during a certain period at a specified price. Generally, a stock-option program provides managers with a current incentive without subjecting them to potential downside risks in the value of the stock. The managers will benefit if the stock's value increases over the set price during the time they are allowed to buy it. The advantage of stock options to the company is that it does not require cash payments to the employee and does not affect the net profit of the company. The disadvantage to the company is that ownership is diluted. The disadvantage to employees is that they are giving money currently to the company in anticipation of future benefit.

.22 *Performance shares.* A program involving performance shares awards stock to managers over a long-term period, usually three or more years, contingent on the attainment of certain goals. Often the specific goals of the program are based on the company's earnings per share. This program sets aside the company's stock in the manager's account on an annual basis. The shares are made available to the manager or may be redeemed in cash in three to five years after the initial award. The redemption of the stock bonus lags behind the actual award and thus gives managers long-term incentives while tying them to the company for an extended period, without incurring any immediate expense. Usually these programs include upper, rather than middle, managers because the rewards need to be based on results over which managers can exert a large degree of control. This type of plan may be suitable only for larger clients.

.23 *Stock appreciation rights.* Sometimes referred to as phantom stock, stock appreciation rights link future compensation to the increase in the stock's value over a set period. Thus, managers benefit from an increase in the value of the stock during the program period as if they owned the stock itself; they don't have to use their own funds or borrow money to buy stock to benefit from the appreciation. Owners benefit because, not having actually awarded any stock to managers, they do not dilute the stock ownership of the company.

.24 The disadvantage of this program to managers is that they may not control certain administrative expenses that affect the net profit and retained earnings of the company. These expenses may include owner/executive compensation and fringes, dividends paid to shareholders, and costs incurred by incompetent managers.

.25 *Nonqualified profit-sharing or retirement program.* Nonqualified profit-sharing, retirement, and other deferred-compensation programs do not provide the tax benefits of profit-sharing, pension, and other qualified plans. Nonqualified plans enable employers to discriminate in favor of key managers, but they do not provide a current tax deduction unless there is a corresponding taxable event. Before including a nonqualified program in an incentive program, the practitioner needs to carefully analyze its income tax impact on all parties.

.26 *Qualified retirement plans.* Qualified retirement plans are contractual arrangements that have been developed in accordance with Internal Revenue Service (IRS) regulations and approved by the IRS. They include defined contributions, 401Ks, SEPs, and IRAs. Generally, these plans provide employers with a current income tax deduction when they contribute funds to the qualified plan trustees. Employees are not taxed until they withdraw the funds at retirement or termination of employment. These plans must be nondiscriminatory and cannot be used selectively to pay incentive bonuses. The practitioner who considers a qualified retirement plan as an incentive needs to fully evaluate all income tax aspects of the plan for the employer and the employee.

.27 **Perquisites.** Incentive awards to key managers may include the following individual benefits.

.28 *Position-level enhancements.* An incentive program may include rewards that enhance position levels, such as new titles and office improvements. Office improvements may range from the acquisition of new furniture to a move to a larger office or workspace.

.29 *Personal consumption items.* Personal consumption rewards include automobiles, country club memberships, expense accounts, parking privileges, car phones, and purchasing advantages associated with corporate buying power. The practitioner should carefully review the tax implications of these incentives. Record-keeping requirements for automobiles and country club memberships may make these alternatives less desirable.

.30 *Recognition awards.* A program could periodically offer managers rewards publicly for services performed. These awards range from public recognition to prizes, trips, and other forms of compensation.

.31 *Matching charitable contributions.* An incentive program may reward managers by matching their charitable contributions or providing them with an amount to dispense according to their own charitable obligations. All contributions need to be considered in light of limitations on tax deductibility.

.32 *Off-balance-sheet partnerships.* Companies may use off-balance-sheet partnerships when they need a plant or equipment. The company may rent the asset from a partnership consisting of owner-managers, their families, and key managers. The partnership finances the purchase of the asset to minimize cash investment, and, assuming the rent is established on an arm's-length basis, the profits accruing from the partnership belong to the involved managers.

.33 **Additional Considerations.** In selecting the appropriate program, the practitioner also addresses the following factors:

.34 *Costs and benefits.*The practitioner compares the plan's costs and benefits with probable outcomes. To ensure that the program is cost efficient, the practitioner projects both minimum and maximum rewards to determine the range of program costs. This analysis considers how any incentive compensation may increase an individual's total compensation (that is, costs associated with retirement plan, payroll taxes, and insurance benefits keyed to compensation).

.35 *Clear documentation.* The practitioner documents the plan to prevent misinterpretation of any established goals, to describe how they are measured, and to specify the incentives to be awarded. The practitioner also ensures that the plan is compatible with other compensation programs, including employment agreements.

32/130 ENGAGEMENT REPORTING

Preliminary Report

.01 The practitioner drafts a preliminary report. This report provides enough detail so that the owners and managers can understand the program and its potential costs and benefits.

.02 The practitioner meets with the client to discuss the preliminary report. From this meeting, the practitioner learns whether the program must be modified to meet the client's requirements. This session is open to ensure that the plan is well thought out, truly reflecting the owner's and company's goals while being fiscally possible. Before discussing the plan with the managers, the practitioner needs to work out all possible problems. What-if and, particularly, worst-case analyses of the impact of bonus formulas on projected or current financial statements should reveal weaknesses in the program. Modifying the plan before unveiling it to managers is far better than taking something away once it does not work as expected.

.03 Subject to the client's approval, the practitioner meets with key managers to discuss the preliminary report and obtain their input. The practitioner considers having this meeting without the owner to encourage a free flow of information, but discusses key managers' recommendations with the owner since the plan's success may hinge on the owners' and managers' making it their own.

Final Report

.04 Following the review of the preliminary report, the practitioner prepares a detailed final report. This final report expands the preliminary draft by including dates, checkpoints, and specific details of the plan. Exhibit 32-2 in the appendix is a sample final report.

32/135 IMPLEMENTING THE PLAN

.01 The practitioner develops an implementation plan, which includes dates for reviewing the plan with the entire management team and for implementation. Once again, this meeting needs to be very open so that all questions of managers and owners are answered and the goals, objectives, and benefits are clearly understood by all.

.02 The plan needs monitoring, evaluating, and updating to ensure that it meets the company's goals and objectives, which may change over the years. After the plan is implemented, the client needs to state clearly to managers that it will update the plan continually to address the company's objectives.

32/140 MARKETING THE SERVICE

.01 The first step in marketing an engagement to evaluate or develop a management incentive program is to review the client list and identify situations in which the client might benefit from the service. Successful engagements with current clients will bring referrals to other clients.

.02 The best candidates for this type of engagement include—

- Small, closely held companies whose owners will eventually want to sell the company. (Who is more likely to buy than the current management?)
- Companies with branch operations, especially retail and fast-food concerns.
- Manufacturers for whom productivity or safety is an issue.
- Service companies in which employees truly control billings and collections.
- Companies operated by an absentee owner.

.03 The best time for the practitioner to evaluate the need for a management incentive program is after completing the year-end work for the client and before making an appointment to discuss the next year's planning. The practitioner carefully reviews the client's financial statements and compares the client's profitability against that of other companies in the same business. The practitioner also considers whether increased employee-manager efficiency and productivity would improve the bottom line. If, for example, the owner, and therefore the employees, are a little laid-back about the business, a management incentive plan may encourage more enthusiasm and productivity for all. The practitioner looks carefully beneath the surface to determine what the numbers on the client's financial statement truly reflect. To market this type of engagement, the practitioner needs to be the catalyst.

APPENDIX 32

CASE STUDY: DEVELOPING AN INCENTIVE PLAN FOR HIGHTEK, INC.

Background Information

James Marble, a partner in the firm of Marble and Moore, meets with Tom Mackay, President of Hightek, Inc., a new client. Hightek, a four-year-old company, distributes technical equipment and offers its customers repair and custom modification services. Annual sales are $3.0 million, and employees number thirty people. During the initial meeting, Mackay discusses his future plans, which include the strategy of growing to maintain a competitive position.

Mackay, an innovative owner-manager, wants to use more creative compensation techniques. However, the business is young, and the industry is fast changing. Therefore, hard, objective performance data are unavailable. Mackay wishes to implement a Management-by-Objectives (MBO) program and ultimately integrate it into the compensation program.

Mackay views the measurement of how each employee contributes to the success of the company as the key factor in designing an incentive compensation system. His primary objective is to motivate the employees by directly relating their compensation to their performance, using a percentage of sales or gross profits as the basis.

During their discussion, Marble states that interviews with the key managers are required if he is to get critical information about Hightek and the functions of the managers and other employees. These interviews will help Marble to understand Hightek's competitive advantage and how managers and other employees support this advantage. He also expects to learn what standards could be used to measure performance, and if the information needed to measure performance is available.

Fact-Finding and Data Evaluation

Marble starts the engagement by interviewing Mackay and the five key managers, using a structured questionnaire. He reviews Mackay's strategic plan, related financial projections, and the last two years' financial statements. Marble also observes day-to-day operations in each major department and develops a profile of the purchasing needs and demographics of company customers and prospects. Based on this information, Marble draws conclusions about how the efforts of key managers and related personnel affect company performances.

Preliminary Report Development

After interviewing all the managers and reviewing all relevant information, Marble concludes that a team effort will increase motivation and profits. He believes that growth, more clearly defined strategies, and more experience in measuring certain results will allow Hightek to refine some of the incentive compensation components in the future.

Marble develops a group incentive plan based on the corporate profits remaining after funding projected corporate growth and providing an acceptable return for the stockholder. He then calculates what he believes to be the minimum necessary pretax return on invested capital (ROIC) and develops an increasing sliding-scale bonus formula to create a bonus pool. In a preliminary report, he discusses each major area of the company and his conclusions about how each department's activities contribute to the company's profit. However, first he decides to gain a consensus about this plan before defining the participants and the method of distribution.

Final Report

During several meetings, Marble, Mackay, and the manager of Hightek review and discuss the proposed plan. After agreeing on the framework of the plan, the group defines the key contributors to company profits, from most important to least important. The results of the tabulation are provided in Figure 32-1.

Marble then correlates and tabulates the results. Based on the ranking and his own judgment, he prepares the suggested bonus distribution percentages for participants and produces his final report of recommendations. Exhibit 32-2 of this appendix is this Sample Final Report.

Figure 32-1
Ranking of Key Profit Contributors

	Number of Times Ranked					
Ranking Position	*1*	*2*	*3*	*4*	*5*	*6*
President	5	1				
Sales manager	1	4	1			
Warehouse and shipping manager			4	2		
Telephone sales and service personnel			1	4	1	
Controller				1	3	2
Product service manager				1	2	3

Exhibit 32-1

Sample Engagement Letter

July 12, 19XX

Mr. Tom Mackay
Hightek, Inc.
1100 Commerce Parkway
Central City, USA

Dear Mr. Mackay:

We are pleased to submit this engagement letter for the preparation of a management incentive plan for Hightek, Inc. The objectives of our engagement will be to—

1. Establish a framework that will allow integration of an MBO program in the future.

2. Relate, as directly as possible, managers' performance to their compensation.

3. Encourage teamwork, management stability, and long-term profitability.

4. Provide an objective basis for distributing incentives.

5. Balance the capital needs of a growing company with the desire to offer incentive compensation.

Study Approach and Scope of Work

To develop the management incentive plan, we will perform the following activities according to the schedule in the attached project work plan.

1. Extrapolate certain financial data from your financial statements over the last two years to gain an understanding of the key financial operating relationships. However, we will not compile, review, or audit the financial statements.

2. Review your strategic plan and related financial projections to understand company objectives and planned strategies.

3. Interview selected key managers with your permission.

4. Develop a profile of customers' demographic characteristics and purchasing needs to determine manager and employee contributions to the selling process.

5. Draft a plan, using the above information.

6. Meet with you and any of your managers, as appropriate, to consider and refine the plan.

7. Write a report detailing our recommendations and the final plan.

8. Meet with the participants of the incentive plan to present its contents and assist in the implementation.

Estimated Fees

We anticipate that the final draft of the report will be ready six weeks after the engagement begins.

We do not guarantee that the incentive plan will produce the desired results, and our fee is not contingent upon the outcome of the plan. We base our fees on the time required by the individuals assigned to this engagement, plus direct expenses. Individual hourly rates vary according to the degree of responsibility involved and the skill required. We will submit invoices monthly. We estimate our fees for developing the incentive plan and our related recommendations will be between $X,XXX and $X,XXX.

We appreciate this opportunity to present you with this engagement letter. If the foregoing agrees with your understanding, please sign this letter in the space provided and return one copy to us.

Sincerely,

____

James Marble, CPA
Marble and Moore

Accepted by______________________________

Date ________________________________

Attachment to Sample Engagement Letter

Project Work Plan for Hightek, Inc.

Task	*Responsible Party*	*Comments*	*Target Completion Date*
Fact-finding	J. Marble	Obtain— • Financial statements for 2 years • Strategic plan • Financial forecasts Interview— • Tom Mackay • Key managers	9-30-XX
Data evaluation	J. Marble		10-15-XX
Plan development	J. Marble		10-31-XX
Review of draft of plan with management	J. Marble	Tom Mackay to decide which personnel will attend	11-05-XX
Presentation of final report to Tom Mackay	J. Marble		11-15-XX
Presentation of plan to all participants	J. Marble T. Mackay		11-25-XX

Exhibit 32-2

Sample Final Report

November 15, 19XX

Mr. Tom Mackay
Hightek, Inc.
1100 Commerce Parkway
Central City, USA

Dear Mr. Mackay:

We have completed our engagement of developing a management incentive compensation program for Hightek, Inc. As a reference point, we present our initial engagement objectives:

1. Establish a framework that will allow integration of an MBO program in the future.

2. Relate, as directly as possible, managers' performances to their compensation.

3. Encourage teamwork, management stability, and long-term profitability.

4. Provide an objective basis for distributing incentives.

5. Balance the capital needs of a growing company with the desire to offer incentive compensation.

We accomplished our work by interviewing key management personnel, observing departmental activities closely, and reviewing pertinent financial and strategic-planning information. This process provided us with answers to the following questions:

- What is the company's competitive advantage?

- What does each manager do and what decisions does he or she make to support the company's advantage?

- By what standards of performance could each manager agree to be measured and ultimately compensated?

- How can individual employee efforts be related to company performance?

- What information does the company have and need in order to measure performance and to excel?

We have presented our findings in two parts: (1) a summary of each major department's and manager's activities and their relationship to profit generation and (2) a description of our recommended incentive compensation program. We believe this program suits the current company situation. We have noted, however, any instances when incentive compensation components may need modification as more specific company plans or more precise management information becomes available.

Summary Review of Major Departments' and Managers' Activities

Sales Manager

The sales manager's direct sales responsibilities should ultimately be measured against a normal salesperson's standards of gross margin dollars. However, as you and he agreed, he has the following goals that have a longer than one-year payoff and require spending his time in areas outside of direct selling:

- Free up his time by reducing his direct sales contacts and increasing the accounts handled by the sales force

- Expand the sales force's knowledge to enable them to handle more sophisticated sales, including service contracts

- Open up new markets and structure new territories

The majority of his responsibilities involve developing and motivating the sales force. His base compensation needs to cover these responsibilities. However, wherever possible, his salary also needs to be based on quantitative measures of performance achievement of the long-term goals. His bonus, in the future, could also be based in part on the level of sales achieved and analyzed by product category. This will help to ensure that the sales force's efforts support the company's strategic goals.

Warehouse and Shipping Manager

The warehouse and shipping manager's basic responsibilities include maintaining an orderly flow of goods and controlling warehouse costs within budget parameters. Our review of these activities indicates that warehouse labor costs are largely fixed, varying only with significant swings in sales volume. Warehouse expenses are variable sales expenses: Sales volume variations are the major cause of changes in warehouse activities and spending levels. Since these variables are based on sales volume, they are quite predictable. Controlling variables of budgeted expenses, therefore, is appropriately covered by the manager's base compensation. In addition, although such data as picked and packed lines per warehouse employee, level of inventory, and number of stockouts compared to standards might be appropriate performance measures, they are not available, and the cost of tracking them probably exceeds their value.

Telephone Sales and Service Personnel

Ninety-five percent of the calls telephone sales and service personnel handle are initiated by customers who know what they want. Therefore, those sales are generated by activities attributed to company name recognition and possibly efforts of field sales personnel. The outbound telephone sales solicitation program is too new to evaluate. It may be measurable, however, and could be included in the incentive in the future.

Field Sales Personnel

The field sales force's compensation program needs to be kept as is at this time. A key factor in determining the structure of sales force compensation is the amount of control the company has and needs over the sales force's activities. If a sales person must operate independently, as an encyclopedia sales person does, for example, a pure commission arrangement makes sense. The reason is that the sales person is largely responsible for finding and selling prospects. A salary and bonus arrangement is preferable when the company needs to control the sales person's activities by assigning territories, providing high-level and continuous technical training, directing daily priorities, and scheduling account call frequency.

A second major factor in determining sales compensation structure is the ability to ascertain if sales result from the sales person's efforts or from general corporate efforts including those of telemarketing personnel. Based on our observations, we conclude that Hightek needs to maintain control over the sales force and that the sales person's contribution to a sale cannot be measured objectively. The current 5-percent commission may need to be changed to a bonus payment in the future if a sales representative reaches a predetermined sales level in a territory or in product categories.

Controller

The profit-related factors the controller influences are the granting of credit and the management of accounts receivable outstanding (credit and collections). Decisions about how much credit to give and its place in the sales process are senior management decisions that the controller should execute. Senior management also sets collections policies because profits are negatively impacted by a high amount of past-due receivables or bad debt. If the controller was motivated by incentives to give credit only to customers who paid in ten days, the result may be no bad debt, but also little revenue. We believe, therefore, that the controller's compensation is best covered by his base salary and that incentive payments are inappropriate.

Product Service Manager

The product service manager's sales volume depends on installations sold by others in the company and on his and the sales force's ability to convince the purchaser to use Hightek's service. Unfortunately, the role of service in the overall strategy of selling equipment is unclear. Until the company determines whether service supports major equipment sales or stands on its own as a profit center, basing incentive compensation on this segment of the business is inappropriate.

Recommended Incentive Compensation Program

Based on our review, we believe that a team effort is the source of increased profits at this stage of the company's growth. Consequently, a group incentive plan that includes all employees is appropriate. In the future, management needs to consider changes to include rewards for specific individual activities as noted in the previous section.

This group incentive plan is based on corporate profits after providing for corporate growth requirements and an adequate return to the shareholder. According to the operating projections included in the strategic plan, the company needs to generate net income after tax of 25 percent of sales. This considers that the rate of sales growth is a function of the rate of return on invested capital (ROIC) assuming a constant debt-to-net-worth ratio. Consequently, we calculate that the pretax ROIC required to support the projected sales is 35 percent.

Given these requirements, we recommend the following specific bonus incentive formula:

1. Establish the company's net worth and its long-term interest-bearing debt as the ROIC base. This is currently $300,000. To sustain expected sales growth in the current period without adding significantly to debt, the company should earn 35 percent of that figure, or $105,000, before paying any bonus.

2. Assume that earnings above $105,000 have been earned by the management group and then other company personnel. To determine a bonus pool, apply the following scale above the base earnings:

   - 10 percent on the first $25,000
   - 15 percent on the next $25,000
   - 20 percent on the next $50,000
   - 25 percent over $100,000

3. Distribute the bonus according to the following percentages. We based this distribution on the results of the ranking exercise, which we reviewed with the management team.

Suggested Bonus Distribution

President	20%
Sales manager	12%
Warehouse and shipping manager	8%
Telephone sales manager	7%
Controller	5%
Product service manager	3%
Other employees	20%
Discretionary	25%
Total	100%

We included the amount designated as other employees because the group consensus is that senior managers are not the sole contributors to company results. Our review of the performance assessment process and employee performance evaluations indicates that all personnel are performing at acceptable levels or above. Therefore, everyone's participation in the bonus distribution is appropriate. The amount of each employee's bonus would be based on the ratio of the individual's base salary to the total salaries of the group.

Finally, the amount designated discretionary is intended to recognize that profits record only financial results, not the other nonfinancial contributions an individual may make. This amount would reward those individuals, especially managers, who achieve established nonfinancial goals that are critical to achieving company goals.

We recommend that we and the management team present the new incentive compensation program and its related calculations to all employees. We also recommend that we review and update the strategies and performance measurements annually to determine if any changes in the incentive compensation program are required.

Sincerely,

James Marble, CPA
Marble and Moore

BIBLIOGRAPHY

Bennis, W., and B. Naus. *Leaders: The Strategies for Taking Charge.* New York: Harper & Row, 1985.

Eichel, E., and H. E. Bender. *Performance Appraisal: A Study of Current Techniques.* New York: American Management Association, 1984.

Gerstein, M., and H. Reisman. "Strategic Selection: Matching Executives to Business Conditions." *Sloan Management Review* (Winter 1983).

Goleman, D. "The New Competency Tests: Matching the Right People to the Right Jobs." *Psychology Today* (January 1981).

Henderson, R. I. *Compensation Management: Rewarding Performance.* Reston, Va.: Reston, 1985.

Herzberg, F. "One More Time: How Do You Motivate Employees?" *Harvard Business Review* 65 (September-October 1987): 109-120.

Kanter, R. M. "The Attack on Pay." *Harvard Business Review* 65 (March-April 1987): 60-67.

Kerr J., and J. W. Slocum, Jr. "Managing Corporate Culture through Reward Systems." *Academy of Management Executives* 1 (May 1987).

Kerr, S. "On the Folly of Rewarding A, While Hoping for B." *Academy of Management Journal* 18 (December 1975).

Quarrey, M., et al. *Taking Stock: Employee Ownership at Work.* Cambridge, Mass.: Ballinger, 1986.

Rosen, C., and M. Quarrey. "How Well Is Employee Ownership Working?" *Harvard Business Review* 65 (September-October 1987): 126-128.

Schuster J.R. *Management Compensation in High Technology Companies: Assuring Corporate Excellence.* Lexington, Mass.: Lexington Books, 1984.

Schuster, M. "Gain Sharing: Do It Right the First Time." *Sloan Management Review* 28 (Winter 1987); 17-25.

33/100 ORGANIZATIONAL STRUCTURE

CONTENTS

33/100 ORGANIZATIONAL STRUCTURE

33/105 SCOPE OF THIS PRACTICE AID

.01 This practice aid provides practitioners with information to help clients in improving organizational structures. Organizational structure comprises the policies, procedures, and systems, as well as activities and relationships, that mobilize a diverse group to pursue common goals. It involves both formal and informal reporting relationships, job assignments and definitions, the personnel deployed to meet the organization's needs and objectives, and all support, financial, and management information systems serving the organization.

.02 Organizational structures can be simple or complex, depending on the size and nature of the business. Small businesses and those with few product lines or limited distribution channels are usually simple, while larger companies often have multiple layers of management, extended lines of communication, and complex policies and procedures. Growth usually increases the complexity of the organization.

.03 To improve organizational structure, practitioners need to become familiar with an entity's objectives, operations, and personnel. No two organizations are exactly alike, if for no other reason than different people are involved. People are a key element that practitioners cannot ignore when evaluating organizational structures. In small businesses particularly, for example, no amount of restructuring will compensate for inappropriate personnel. Often, changing assigned responsibilities to better use key personnel is the best—and only—recommendation practitioners can offer.

.04 This practice aid won't help practitioners to evaluate personnel but will provide them with a knowledge of organizational relationships so they can document existing structures and establish effective new structures on paper. In doing so, practitioners need to consider not only the current staff and reporting relationships but also the company's plan for growth and future hiring needs. Appendix 33/A shows characteristics typically associated with effective organizational structures. While organizations often are smaller than the one envisioned in this practice aid, the approach outlined is still applicable but will be simpler and will take significantly less time.

33/110 TYPICAL ENGAGEMENT SITUATIONS

.01 Restructuring may be appropriate when an organization changes what it does, how it does it, or who is responsible for getting it done. These changes often result when a company merges with or acquires another, centralizes or decentralizes, introduces or discontinues a product line, downsizes, streamlines layers of management, acquires new technology, or loses key personnel.

.02 Restructuring may also be needed when management or key outsiders perceive that the current structure no longer produces the desired results. They may perceive, for example, that the company has developed a poor image or is unable to cope with sudden growth resulting from increased demand for a product. The problems underlying the perceptions usually involve finances, production, costs, or personnel.

.03 Before undertaking an engagement to review an organization's structure, the practitioner needs to determine whether organizational change can solve the perceived problems. Changing the organizational structure of a manufacturing plant, for example, will not solve the problem of aging and obsolete equipment. A practitioner may assist a single unit or an entire company in an organizational restructuring in many ways. Typical engagements involve one or a combination of the following services:

.04 *Documenting the existing structure.* Many small businesses have never documented their organizational structure. Practitioners may prepare descriptions of the duties, responsibilities, authority, and reporting requirements of each position. They may also develop an organizational chart showing the relationships of the positions.

.05 *Organizational planning.* Practitioners may prepare proposals for changing the organizational structure in response to events or perceived problems. This engagement may also involve projecting the future personnel needs of the organization.[1]

.06 *Developing the organization.* Practitioners may develop techniques and methods by which an organization can enhance its growth and facilitate productive working relationships.

.07 *Task restructuring.* Practitioners analyze individual and group efforts to accomplish specific tasks. Then, they restructure the duties of individuals and units to simplify work and enrich jobs in order to improve productivity, motivation, and morale.

.08 This practice aid focuses on an engagement that documents the existing organizational structure and proposes changes in response to client needs.

33/115 REACHING AN ENGAGEMENT UNDERSTANDING

Engagement Considerations

.01 Before beginning the engagement, the practitioner needs to conduct a preliminary survey addressing the scope of the work to be performed, the expected fees, the anticipated time

[1] For information on general business planning refer to Section 20/100, "Business Planning."

frame, and the final product. This preliminary survey then becomes the basis for preparing a client proposal and for planning the engagement approach.

.02 During the preliminary survey, the practitioner meets informally with management and key personnel to gather information on the organization's structure, focusing on the following significant areas:

- Formal organizational structure, or the official reporting relationships as published or perceived by management
- Informal organizational structure or the actual day-to-day reporting and decision-making practices
- Adequacy of staffing at all levels
- Assessment of morale
- Capabilities and limitations of management and key personnel
- Indication of problems or stressful growth areas
- Management information systems
- Products or services and related operations
- Expected growth objectives

.03 Management's desired results and the complexity of the engagement are critical factors in determining which areas to address and the depth of research needed in the preliminary survey.

.04 Fees charged for the preliminary survey work will vary, depending on such typical considerations as—

- Is it a new or a current client?
- What is the size and profitability of the engagement?
- What is the likelihood of a practitioner's assignment to the engagement?
- What is the likelihood of additional engagements?

Engagement Letter

.05 If the practitioner and management agree to proceed with the engagement, the practitioner needs to establish an understanding of the project's scope, conduct, time frame, fees, and final product in an engagement letter. Exhibit 33B-1 in appendix 33/B shows a sample engagement letter. The practitioner may also wish to inform management of the persons assigned to the engagement and provide a schedule of milestones for monitoring progress and rendering billings.

33/120 CONDUCTING THE ENGAGEMENT

Fact Finding

.01 The first step in conducting the actual engagement is to perform an in-depth study of the organization's current structure and operations, including its services or products, communication and management reporting systems, overall effectiveness and morale, and other areas deemed necessary for the particular engagement.

.02 The practitioner uses three basic techniques for gathering data about an organization's structure and operations: questionnaires, interviews, and observations.

.03 **Questionnaires.** Practitioners using questionnaires[2] obtain the best results by following these rules:

a. Questionnaires need to be job-specific. In other words, a practitioner cannot use a questionnaire developed for a clerical job to gather information about a management position. For instance, a salesclerk's questionnaire may ask about pricing stock, writing sales slips, making change, and balancing a cash register, while a maintenance repair worker's questionnaire may ask about equipment repaired, material tolerances permitted, and supervision received.

b. The form contains easily understood questions that require short, factual answers.

c. Employees submit the questionnaire to their supervisors for approval to ensure that all information is accurate.

.04 If questionnaires are carefully developed, answered honestly by employees, and then reviewed by department heads, practitioners can effectively use them to gather information for writing job descriptions. Exhibit 33C-1 in appendix 33C shows a sample questionnaire.

.05 **Interviews.** Although subject to errors and biases, a skillfully conducted interview is still considered the best information-gathering technique available. Good interviewing requires frequent practice, periodic fine tuning, and an outline or plan to guide the interviewer.

.06 A good interview plan requires a lead statement of purpose, an interview approach (for example, question-and-answer, spontaneous discussion, or both), subjects to be covered, and both lead and follow-up questions.

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[2] Questionnaires are generally used internally, although certain circumstances might warrant the use of external questionnaires or surveys.

.07 The lead statement tells the interviewee the purpose of the engagement, the major interview topics, and the approximate time required for the interview. The practitioner needs to prepare questions as part of the interview plan to ensure they are clear yet general enough to encourage spontaneous discussion (see exhibit 33C-2 for sample questions). The practitioner also needs to explain the confidential nature of the interview and reveal who has access to its results.

.08 Observation. Randomly observing operations can help practitioners in understanding the organizational structure and its effectiveness and in validating information from other sources. Practitioners need to document their observations in order to determine which areas need improvement and whether or not observations support or contradict information gathered from interviews and questionnaires.

.09 Observation is an ongoing process in the fact-finding phase and throughout the engagement. Practitioners can observe the volume of activity, supervisory patterns, organizational levels—even the condition of the work stations can be revealing.

Documenting the Existing and Prospective Structure

.10 Using graphics, charts, and narrative, practitioners document both the existing organizational structure as well as modifications for future growth. In effect, practitioners view the organizational structure from two perspectives: existing state and growth state.

.11 Efficient documentation can facilitate this dual analysis. Practitioners might want to include the following elements in their documentation:

- An organizational chart depicting reporting relationships and relative authority levels
- Annotation reflecting differences between the formal structure and informal day-to-day operations and between management's and employees' perceptions of job responsibilities
- The current ownership structure and succession plan
- Job descriptions and task volumes for each position
- Copies of relevant business and marketing plans and existing policy manuals or memos

.12 It is also useful to document observations regarding the owner's personality and management traits; the effectiveness of major functional areas and their ability to handle future growth; the company's financial position; and the status and future capabilities of the management information systems.

.13 The following sections address specific aspects of an organization that practitioners need to review, document, and analyze in order to recognize areas needing improvement.[3]

.14 Organizational Structure. Most companies have both formal and informal organizational structures. The formal organizational structure is the official structure published by management, which defines the recognized reporting relationships, responsibilities, and authorities of the staff. It reflects management's perception of operations and usually is easy to acquire since it is frequently documented and made available to the staff.

.15 The informal organizational structure reflects *actual* day-to-day operations—the *realities* of the company's management, personnel, communication patterns, and ultimately, its strengths and weaknesses. It is the most difficult structure to identify but is important because it reveals the company's true character and its ability to address problems and plan for the future.

.16 Ownership Structure. In a small business, it is important to understand the ownership and decision-making structure. If the structure is a partnership, for example, the practitioner needs to determine the interests of and the provisions for limited and general partners.

.17 In all cases, practitioners need to understand the true decision-making structure, including the plan for succession. The practitioner needs to know how the current owner will be succeeded as well as the personality and goals of the successor.

.18 Personnel Characteristics. Formal job descriptions are an important tool in assessing actual job responsibilities and reporting relationships. In general, they define what the position does, the decisions made, reporting relationships, and sources of counsel and direction. To uncover discrepancies, practitioners can analyze both management's and employees' perceptions of job responsibilities.

.19 In addition, reviewing each employee's training and qualifications will help practitioners to evaluate their competence and their suitability to fill positions in the existing organizational structure.

.20 In cases of family ownership or family participation, it is advisable to carefully assess the family's impact on staff morale and attitudes, actual versus official decision-making, internal politics, and existing versus required competence in job assignments.

.21 It is also important to assess how the staff adapts to growth or handles additional responsibilities. The staff's flexibility may have a significant impact on the organization's ability to grow. Based on this assessment, the practitioner may recommend alternative organizational changes.

[3] A diagnostic review technique that includes the use of forms and questions can be very effective in developing organizational-related and broader client information. For a description of this technique and illustrative questions, refer to section 60/100, "Operational Audits."

.22 Business Organization and Policies. To fully understand the organizational structure, practitioners need to understand how the various functions comprising the business operate. By answering the following questions, the practitioner can gain this understanding.

.23 *Executive management.*

- How are policy decisions made, and who makes them?
- How do the executives interact in decision-making?
- Are decisions made by default?

.24 *Financial management.*

- Who is responsible for managing cash and investments?
- Who signs checks, and how are financial management decisions made?
- Who is responsible for the accounting and reporting operations?
- Are there any overlaps or gaps in handling the financial functions?

.25 *Marketing and sales.*

- How are the products or services marketed?
- How are advertising decisions made, and are they effective?
- What role do the owners play in marketing and sales decisions or activities, and are they effective?
- How well are the sales managed?
- How do the operation's sales compare to industry norms?
- Is there a sales force, or does the company rely on independent representatives?

.26 *Production.*

- What methods does the organization use to prepare and distribute its product or service?
- Who makes the production decisions, and how are they implemented?
- How well does the staff resolve problems and get the product out the door?
- How do the entity's operating statistics and costs compare to industry norms?

.27 *Personnel.*

- What are the policies for hiring, firing, evaluating, and compensating employees?
- Are written procedures and policy manuals both current and adequate?
- Are there unions? (Obtain copies of any contracts.)

.28 *Office support.*

- Do the office support and clerical staff operate efficiently?
- Are there procedure manuals?

.29 *Outside services.*

- Does the company rely on outside services for key functions (i.e., accounting, EDP, engineering, R & D, marketing)?

.30 Financial Position. In assessing organizational structure, practitioners review the company's financial position, including its profitability, credit position with banks and other lenders, the equity position of the owner-operators, and its cash flow. The company's ability to finance needed systems and facilities may have a significant impact on practitioners' final recommendations.

.31 Management Information Systems. An effective organization needs solid information systems that yield accurate information in a timely and efficient manner. The existence of management information systems (MIS) frequently is one indication of a well-directed and organized management team. Elements to examine in assessing the system's level of sophistication include the following:

- Capability of the financial accounting system (general ledger, subsidiary ledger subsystems, total systems integration, and so forth)
- Built-in capability for delivering management reports automatically
- Extent to which management information capabilities have been developed separately from traditional financial accounting systems
- Extent to which job responsibilities and data flow are compatible—that is, whether the right information in appropriate detail reaches the right organizational level
- Development level of inventory, receivables, and cost accounting systems

.32 Planning Capabilities. The practitioner needs to review an organization's ability to plan for—and handle—the future growth. Answers to the following questions will provide a basis for that assessment:

- Has the company defined the direction and pace of its business growth?
- Does the organization have the financial strength to fund anticipated growth?
- Is the growth plan thoroughly developed?
- Does the organization have a well-defined plan for product-line expansion, further market penetration, or expansion into unrelated businesses?
- Does the company have the organizational structure and personnel to handle the projected growth?
- Are compensation, benefit plans, and personnel policies appropriate and adequate?
- Is everyone in the organization aware of the expected growth, its direction, and its potential impact?

Assessing the Organizational Structure and Identifying Problem Areas

.33 The practitioner uses the fact-finding phase to analyze the true nature of the organization and to identify its problem areas. When management engages the practitioner to address perceived problems regarding the organization's ability to sustain itself or to prepare for future growth, the practitioner needs to verify management's perceptions and to separate them from other problems recognized during the review. A substantial difference between management's perceptions and actual operations could negatively affect organizational efficiency.

Developing Recommendations

.34 The practitioner develops an alternative organizational structure as a result of the fact-finding phase. To guide practitioners with this process, appendix 33/A describes the characteristics associated with an effective organizational structure and the basic principles of organization. This appendix also contains an exhibit summarizing the advantages and disadvantages of certain simple and complex organizational structures. The bibliography provides additional sources of information about characteristics of organizations.

.35 The practitioner develops alternative structures to support the company's mission. Practitioners can hold meetings with management to review the existing structure, probable areas for change, the company's strategic objectives, and alternative organizations to support these directions.

.36 Organizational changes are the most sensitive of all consulting recommendations. Practitioners need to present them with considerable discretion and with a certain degree of flexibility to retain management's confidence and to gain their acceptance. Generally, the most sensitive area is the allocation of various jobs, responsibilities, and authorities to current executives and middle managers.

.37 Occasionally, it is necessary to address certain personal characteristics of the owners or managers and their compatibility with the organization's objectives, direction, or staff. Such discussions risk the success of the engagement but may also ensure its success. The strategy for such discussions depends on the personality and rank of the individual in question.

.38 Practitioners often recommend policies and procedures that foster an effective organizational structure. For example, a practitioner might suggest developing a mission statement to clearly establish a client's future direction or might outline specific steps necessary to bring order to another client's operations. Other recommendations may focus on changing from a current structure to a proposed or alternative structure.

.39 In some cases, recommendations needed to support structural changes are not directly related to these changes, such as changing management information systems or increasing financial resources to accommodate projected growth.

Presenting the Final Report

.40 The final product of an organizational structure engagement is an oral or written report summarizing the practitioner's findings and recommendations. A final report includes—

- Background perspective.
- Overview of existing situation.
- Summary of perceived problems or situations requiring attention.
- Recommendations with alternative options where appropriate.
- Cost-savings estimates related to proposed changes.
- Implementation plan and resource requirements.

.41 The illustrative case study in appendix 33/B includes a final report. Appendix 33/C provides less-detailed examples of organizational structure engagements condensed to the facts of the case, an analysis of the data gathered, and recommendation summaries.

APPENDIX 33/A

ORGANIZATIONAL STRUCTURE CONSIDERATIONS

When analyzing organizational structures, practitioners need to be familiar with fundamental characteristics and principles typically associated with healthy and efficient operations. Exhibit 33/A-1 in this appendix addresses some of these characteristics.

Characteristics Associated With an Effective Organizational Structure

A successful organization has a clear definition of what it is supposed to do, including the following:

- Management has an understanding of existing services or products and has planned for the future.
- The basic organization's mission, policies, and procedures are communicated to all staff members, who understand the company's philosophies and are motivated to achieve its goals.
- The organization is profitable or, if not-for-profit or governmental, successfully satisfies its customers' needs.
- The organization provides its products and services in a timely and efficient manner and meets its sales goals.
- Management has clearly defined the responsibilities, authorities, reporting relationships, and performance measures for each employee and has communicated this information to the staff.
- Individuals are appropriately assigned duties based on their skills and experience, are adequately trained to do their jobs, and have adequate resources to do them.
- Staffing levels are appropriate for the level of activity.
- The recruitment, selection, and promotion processes are effective.
- Parties both inside and outside the organization perceive order and continuity as well as good chemistry among employees.
- Management recognizes and resolves organizational and staffing problems.
- The organization has an effective management information system (MIS).

The personality of the owner or manager frequently has a significant impact on a small business. The owner or manager of a small business typically sets the standard and pace through example and managerial style.

Although styles and techniques vary, there are certain attributes common to most successful managers. For instance, effective managers—

- Know how the organization runs and where it is going.
- Listen to others' suggestions.
- Are hard working and set a good example.
- Promote the company's best interests.
- Demonstrate good communication skills.
- Are reliable.
- Recognize—and compensate for—their own strengths and weaknesses.
- Understand—and offset—the impact of their personality and style on the operation.

Organizations poised for growth require certain additional characteristics to be successful, including the following:

- Management has demonstrated the ability to delegate authority and responsibility resulting from increased activities, and the staff has demonstrated the skills needed to handle increased workloads and responsibilities.
- The management information system is sufficiently flexible to handle additional information and to address new problems.
- Management has committed the financial resources needed to support growth.
- The owner or manager is able to direct the growth process.
- The organization is aware of the additional resources—financing, staffing, materials, systems, facilities, and marketing—required to achieve its changing goals and objectives.

Basic Principles of Organization

1. *Principle of the objective.* Each part of an organization will express the purpose of the undertaking, or its activities become meaningless.

2. *Principle of specialization.* Each of any organized group is confined, as far as possible, to performing a single function.

3. *Principle of coordination.* The purpose of coordination, as opposed to the purpose of the undertaking, is to unite the group's efforts.

4. *Principle of authority.* Every organized group needs to establish clear lines of authority.

5. *Principle of responsibility.* Managers are absolutely responsible for their subordinates' actions.

6. *Principle of definition.* The organization needs to clearly define in writing and distribute to all employees the duties, authorities, responsibilities, and relationships for each position.

7. *Principle of correspondence.* In every position, responsibility always corresponds to authority.

8. *Span of control.* Generally, a person will not supervise more than five or six people with different functions.

9. *Principle of continuity.* Organization improvement should be a continuous process effected through frequent review of the organization.

Exhibit 33A-1

Simple and Complex Organizational Structures

Structure/Type	Advantages	Disadvantages
Simple Structures		
Function. Executives from each major functional area report to the top executive. Each functional area produces goods and services that support the other functional areas.	• Places specialist in functional groups, capitalizing on functional expertise. • Allows for economies of scale. • Permits better control over functional performance. • Promotes efficiency.	• Develops parochial behaviors and attitudes within each function, which could be counterproductive. • Hinders cross-functional communication and coordination. • Limits employee opportunities for advancement to functional area only. • Establishes turf territory.
Product. Executives from each major product line or business report to the top executive. Each product line provides its own services (e.g., manufacturing, marketing) independent of the other product lines.	• Produces dedication to each product, leading to innovative product ideas. • Provides each product line with greater operational autonomy. • Helps to achieve coordination.	• Potentially duplicates efforts (especially if products are related in terms of technology or customers). • Hinders coordination across product groups. • Hinders development of functional expertise. • Creates high administrative costs.
Geographic. Executives from each major region around the world report to the top executive. Each region may develop, manufacture, and sell the same products.	• Allows for fast and appropriate adaptation to local requirements. • Provides locus of accountability in each region. • Provides autonomy. • Allows for specialized services and products.	• Duplicates resources across regions. • Hinders standardization of product quality and services. • Establishes concern over area, not company.
Customer. Groups within the company concentrate on a particular customer or class of customers.	• Allows for response to needs of customers. • Provides specialized services.	• Results in high administrative costs and duplication of efforts. • Hinders coordination and communication.

Structure/Type	Advantages	Disadvantages
Complex Structures		
Holding Company. Used by corporations that have vastly different products, each company operates as an autonomous unit. Business plans are developed within each business unit; the top executive at the corporate level is minimally involved in the operations of the individual businesses and tends to provide strategic direction. Within each company, the structure may be either simple or complex.	• Enables each unit to pursue its best market position. • Provides financial resources for a parent company. • By pooling financial resources, increases the probability of survival of all companies in the holding company.	• Produces a lack of corporate identity. • Produces a lack of intercompany employee mobility, thereby limiting career and transfer opportunities. • May spread resources too thin. • Lack of ability to adapt to needs of other units.
Multidivisional. Is similar to the simple product structure but with greater size and complexity of businesses. A relationship exists among the multiple businesses and more coordination of strategic planning exists at the corporate level than in holding company. Because of the greater coordination of strategic planning, the multidivisional structure tends to have more control and direction than the holding-company structure	• Increases coordination among product divisions. • Retains decentralized operations for each product line. • Increases accountability of each product division.	• Duplicates resources. • Forces subordination of functional excellence to product innovation.
Matrix. Features dual command, with authority flowing both vertically and horizontally. The organizational chart resembles a grid structure rather than a pyramid. Compromises functional structure with another structure, usually product.	• Promotes managerial growth and professional development. • Allows for flexibility, coordination, and efficiency. • Produces motivation and commitment, while freeing top management. • Produces innovative products and customer satisfaction.	• Incurs high overhead costs. • Produces a confusing power/authority structure. • Produces conflict, ambiguity, and individual stress. • Difficult to manage.

APPENDIX 33/B

CASE STUDY: ILLUSTRATIVE ORGANIZATIONAL STRUCTURE ENGAGEMENT: ACQUISITION COMPANY, INC.

The following case study illustrates an MCS engagement for an organization that acquired a similar organization with facilities located in other cities. The case study includes an engagement letter and a report containing organizational charts and job summaries.

The practitioner, Jim Wood, received a call from George Brown, the president of a local business that recently acquired a competitor with operations in other cities within the state. The acquisition was part of a strategic plan to expand and to reduce competition. Mr. Brown requested assistance in structuring the new acquisitions and in determining how to combine the new and existing resources to reduce redundancy and best achieve the corporate objectives.

Mr. Wood met with Mr. Brown and, after obtaining some preliminary information, prepared and submitted an engagement letter for approval. Upon approval, Mr. Wood proceeded with the engagement and presented his findings in a report.

Exhibit 33B-1

Sample Engagement Letter

CPA & Company
Any City, USA 10111

May X, 19XX

Mr. George Brown
Acquisition Company, Inc.
Professional Building
Any City, USA 10111

Dear Mr. Brown:

We enjoyed meeting you and members of your organization while performing a preliminary survey of the operations of Acquisition Company, Inc. This letter documents our understanding of the services we will provide to Acquisition Company, Inc. as a result of that survey.

Nature and Scope of Work

We will analyze the organizational structure and requirements of Acquisition Company, Inc. and its newly acquired operations in both Smithfield and Anderson. This includes reviewing the types of jobs currently performed and their titles or classifications, the adequacy of staffing, and the management structures at the various locations. At the conclusion of the study, we will recommend an organizational structure that will support the objectives of the expanded operations and will promote uniformity and consistency in the various locations.

Roles

To provide an effective framework for this engagement, both parties need to understand their respective roles.

Our role encompasses the following:

- Gathering data about the history and organization of the businesses
- Analyzing the businesses' organizational requirements
- Identifying appropriate management and organizational structures
- Developing job definitions and requirements

Your role encompasses the following:

- Providing data we may request

- Making key people available for interviews and conferences
- Making timely decisions throughout this engagement
- Cooperating with our staff in carrying out the steps necessary to complete this engagement

Results and Benefits

The tangible results of this engagement will be (1) an organizational structure that is appropriate for your company's needs and (2) job definitions for key personnel. Intangible results include a better understanding of the organizational relationships among the various locations.

Time and Duration

We can begin this engagement two weeks after you accept this letter and can complete it within six to eight weeks, depending on the availability of your staff for interviews. We will notify you regularly about engagement progress.

Fees and Payments

Our fees are based on time expended at our standard hourly rates. We will bill out-of-pocket expenses in addition to our standard fees. Our normal practice is to issue monthly invoices for the fees and expenses incurred as the work progresses. Our invoices are payable upon receipt.

Conclusion

If any part of this letter differs from your understanding of this engagement, please notify us at once so we can establish a proper mutual understanding.

We appreciate the opportunity to serve Acquisition Company, Inc. and look forward to a mutually beneficial association. If you agree with this proposal as presented, please sign it and return a copy to us.

Sincerely,

____
Jim Wood
CPA & COMPANY

Accepted:

______________________________ Date ______________________________
Mr. George Brown

Exhibit 33B-2

Engagement Report
Sample Transmittal Letter

CPA & Company
Any City, USA 10111

May 31, 19XX

Mr. George Brown
Acquisition Company, Inc.
Professional Building
Any City, USA 10111

Dear Mr. Brown:

We have presented prior reports regarding the organizational structure and requirements of Acquisition Company, Inc.'s activities at Smithfield, Anderson, and Any City. This revised report allows for some changes as discussed with executive management and board members.

We recommend a transitional period of executive management by creating a position entitled executive vice president, who will report to the president. Initially, the vice president of marketing as well as the fleet, personnel, and division managers will report to the executive vice president, with the senior vice presidents of finance and of manufacturing reporting to the president. After a time deemed appropriate by board members, the executive vice president may be named chief operating officer and assume responsibility for the senior vice president of manufacturing. The senior vice president of finance will continue to report to the president.

In addition, the executive vice president will initially function as the division manager of Any City. A decision will be made later on staffing the Any City division manager position.

The company will operate with a president who is also the chief executive officer and with an executive vice president who is also the chief operating officer. Whether or not to maintain these dual roles or to create separate CEO and COO positions will be determined by the Board of Directors when the president retires. We have periodically delivered to you job definitions for these key positions.

Sincerely,

____

Jim Wood
CPA & COMPANY

Exhibit 33B-3

Sample Engagement Report

Scope

Our study includes a review and an analysis of the organizational structure of Acquisition Company, Inc. and of Acquisition activities performed at the Smithfield and Anderson operations. We analyzed the types of jobs performed, the job titles or classifications, the adequacy of staffing, and the management structures at the various locations.

Our objective was to analyze the operations and to recommend an organizational structure that will conform to the objectives of your expanded operations and will promote uniformity and consistency in the various locations.

Approach

We interviewed key personnel to gather data concerning their responsibilities (see figure 33B-1). These interviews also allowed us to observe individuals and to solicit their comments regarding perceived problem areas.

We presented questionnaires to selected employees to gather additional data and to confirm some information gathered during the interview process. We also analyzed organizational charts and other documents from each location in conjunction with the interview data.

The following issues are the most significant:

1. *Need for new corporate structure*

   Establish a corporate structure that will enable Acquisition Company, Inc. to meet the objectives of its expanded operations. We addressed this issue in a previous report but will discuss it again here.

2. *Need for new organizational structure*

   Establish an organizational structure that is compatible with your corporate polices and plans. This requires a reassessment of reporting relationships and responsibilities.

3. *Need for uniformity and consistency among divisions*

   Adopt similar structures for each operation to facilitate the implementation of corporate procedures and polices at all locations. The structures will not be entirely the same due to the varying sizes and scope of operations, but they will be relatively uniform and consistent since they work with the same products and are not geographically dispersed.

We recommend that Acquisition Company, Inc.—

- Establish a new corporate structure as presented in this report.
- Establish a new organizational structure similar to the one in this report.
- Remove the Anderson operation from the jurisdiction of Smithfield and have both operations, along with the Any City division, report to the corporate executive vice president.
- Establish a plan of action for removing extra levels of management.
- Establish uniform and consistent job titles and classifications where they are lacking.

New Corporate Structure

A previous report recommended establishing a new corporate structure, policies, and procedures to guide and shape the organization's future direction. This report provides a copy of that recommendation. We also excerpted portions of our May 27, 19XX report in the following comments.

Using such organizational concepts as centralization versus decentralization and functional versus divisional structures, we recommend an organizational structure similar to the one illustrated in figure 33B-2. We recommend using staff members at the corporate level and establishing division managers for Any City, Smithfield, and Anderson. The vice president of marketing and the fleet, personnel, and division managers will report to the executive vice president. The executive vice president will report to the president, who also is the chief executive officer.

We suggest structuring each division along a sales-center format—that is, each will be responsible for the sales, warehousing, distribution, and operations of that particular division. An exception is Any City, which houses corporate production facilities, used by all divisions. Thus, Any City's sales-related activities will be decentralized but its production function will be centralized.

We recommend that Acquisition centralize the financial records and controls as well as the information processing system at Any City, subject to the responsibility of the chief financial officer.

The vice president of marketing will be responsible for all corporate marketing efforts. In addition, this position will oversee all sales activities to ensure that policies and procedures are followed.

Currently, the Columbus operation is small enough to be supervised by the sales function of the Any City division and is not a separate division on the organizational chart. We suggest maintaining the Columbus operation's financial records and sales information separately. As it continues to grow, Acquisition needs to consider establishing this operation as a separate division.

The section of this report entitled "Job Summaries" shows the basic duties and responsibilities for the proposed positions.

New Organizational Structure

We studied the activities performed at the various locations and found them similar with some variance due to the different sizes of the divisions.

We recommend staffing each location with a division manager who will be accountable for the division's performance. The division managers of Any City, Smithfield, and Anderson will report to the executive vice president. In addition, they will answer to the vice president of marketing for implementing and adhering to sales and marketing policies and to the vice president of finance for accounting and financial policies.

The number of managers and personnel at each division will vary somewhat, as depicted in figures 33B-3 to 33B-5. The following briefly describes the activities of each division.

Any City Division

A division manager will be in charge of the Any City division and will report to the executive vice president. This division is larger than other divisions and will employ more personnel with varying degrees of responsibility. A sales manager, shipping and loading manager, and office supervisor will report directly to the division manager. The following positions report currently to the sales manager: assistant general sales manager, cold drink sales manager, distribution, delivery, and merchandising manager, tell-sell office manager, and cooler department manager. The merchandising manager - food stores reports to the assistant sales manager.

The director of manufacturing, not the division managers, will be responsible for production operations, performed primarily at the Any City division. As a result, division managers and the director of manufacturing will share some resources.

The office supervisor will be primarily responsible for route settlement and accounts receivable and for forwarding information and paperwork to the corporate accounting office.

Smithfield and Anderson Divisions

A division manager reporting to the executive vice president will be in charge at Smithfield. This division currently performs some production but will eliminate it in the near future and focus instead on sales and distribution. The sales manager, warehouse and shipping and loading manager, and office supervisor will report to the division manager.

The structure of Anderson will be similar to that of Smithfield. If production is performed at these locations, it will be the responsibility of the director of manufacturing, not the division managers. Both divisions will have office supervisors who will oversee small clerical staffs that handle route accounting, accounts receivable, and deposits; process paperwork; and forward information to the home office. Both divisions will have similar sales and warehousing functions.

Corporate Accounting and Data Processing

Any City will be the home office for the company's centralized accounting and EDP needs. John Smith, currently vice president of finance of the Any City Acquisition Company, Inc., will continue in this position, reporting to the new corporate senior vice president of finance.

A controller, reporting to the senior vice president of finance, will be responsible primarily for financial statements and the general ledger. An office manager with a staff handling accounts payable, accounts receivable, and payroll functions will report to the controller.

A data processing manager, reporting to the senior vice president of finance and working from the home office, will be responsible for all EDP operations as well as a small staff consisting of operators and key punchers.

Organizational Charts

Figures 33B-3 to 33B-6 represent the proposed organizational structures of the divisions and the centralized corporate structure for the accounting and EDP operations.

Uniformity and Consistency

The divisional operations and structures need to be uniform and consistent where possible. We have adjusted some inconsistencies that existed among the various locations. For instance, we assigned the same titles to similar jobs as shown in the organizational charts. Of course, the differences in size and scope of operations will account for some variations in supervision, special needs, and personnel at the various locations.

Job Summaries

President

The president is the chief executive and administrative officer. This person is responsible for managing all company activities to ensure the continuing realization of profits and long-term growth; the reasonable satisfaction of the company's employees and customers; and, with the board of directors, the protection of stockholders' investments.

The president is responsible for developing and maintaining a suitable organizational structure, employing competent executives and managers, formulating corporate policies, and approving divisional or departmental policies.

Executive Vice President

Reporting to the president, the executive vice president is responsible primarily for the company's sales and distribution activities. Reporting to the executive vice president are the vice president of marketing, the division managers, and the fleet and personnel managers.

Senior Vice President-Finance

The senior vice president of finance, acting in an advisory capacity to the president, controls corporate funds and securities, directs the accounting of receipts and disbursements, and supervises the deposit of all monies and other valuables in depositories designated by the president and board of directors.

More specifically, the senior vice president of finance is responsible for—

1. The care and custody of company funds, securities, and records.

2. The company's pension plans and various insurance programs.

3. Loans and financing arrangements, including tracking loan ratios and other financial data.

4. Analyzing financial statements and other reports to identify weaknesses in the company's financial structure; taking remedial action if necessary; and making appropriate recommendations to the president to maintain a sound financial structure.

5. Serving as the liaison between the company and legal counsel.

6. Formulating accounting policies and procedures and ensuring they are followed.

7. Administering and overseeing all accounting functions, including bookkeeping, recordkeeping, cash transactions, payroll, and tax returns.

8. Administering and overseeing all corporate EDP activities.

Controller

The controller directs the corporate accounting operations to maintain and improve the company's financial soundness; controls cash flow and expenditures; and provides accurate accounting information and financial controls.

More specifically, the controller is responsible for—

1. Directing general accounting operations (general ledger and related books, budget preparation and control, accounts payable and receivables, and statement preparation and analysis); time keeping (payroll and worktime records); and credit and collection efforts.

2. Assisting in formulating accounting policies and procedures and ensuring that they are followed.

3. Assisting in analyzing financial statements and other related reports to identify weaknesses in the company's financial structure, taking remedial action if necessary, and making appropriate recommendations to the vice president of finance to maintain financial soundness.

4. Exercising administrative direction over all route accounting performed at the branches.

Division Manager

The division manager plans, directs, and coordinates the activities of subordinate managers in carrying out divisional objectives at the lowest costs consistent with quality requirements. The division manager, guided by the executive vice president and in conjunction with the vice presidents of finance and of marketing, implements and administers corporate policies and procedures at the division level.

In light of the differences in size and scope of operations, the requirements for this position may vary among divisions. All divisions will carry on sales and delivery activities, warehousing, and route accounting. Some divisions may also have production facilities, subject to the supervision of the senior vice president-director of manufacturing.

Vice President-Marketing

The vice president of marketing is accountable to the executive vice president for all corporate marketing activities, including sales, service, advertising and promotions, and market research. This person will represent the company, as assigned, in trade and public relations activities and will direct the sales and division managers, depending on the activities.

More specifically, the vice president of marketing is responsible for—

1. Providing sound and aggressive sales, advertising, and marketing plans to ensure the fulfillment of short- and long-range corporate goals.

2. Developing and managing promotional activities for the various divisions.

3. Preparing short- and long-range forecasts in conjunction with the divisions.

4. Assisting sales managers in planning and executing sales training programs.

5. Conducting market research, analyzing sales trends of all packages and products, and recommending programs to capitalize on market potential.

6. Negotiating sales and marketing plans and programs with the various soft drink parent companies; supervising and maintaining adequate records to ensure committed funds are received from the various parent companies.

7. Coordinating media contracts and maintaining relationships.

Data Processing Manager

Directed by the senior vice president of finance, the data processing manager is responsible for the direction and administration of all data processing activities. This person supervises employees engaged in data processing operations, including effective utilization of equipment, equipment operations, and clerical, statistical, and administrative work. This person also coordinates the corporate data processing activities and oversees these operations at the division levels. The data processing manager is responsible for establishing data processing procedures, security measures (including hardware and software), backup systems, maintenance, and software development.

Senior Vice President/Director of Manufacturing

The director of manufacturing, reporting directly to the president, is responsible for the production facilities and operations and for product quantity and quality, shipping and receiving among divisions, maintenance of warehouse facilities, and space management. This person maintains a competent staff to fulfill these obligations.

Figure 33B-1
Personnel Interviewed

Any City

Vice president - Operations
Production superintendent
Manager of shipping and loading and plant grounds
Assistant controller
Data processing manager
General sales manager
Assistant general sales manager
Manager - distribution, delivery, and merchandising

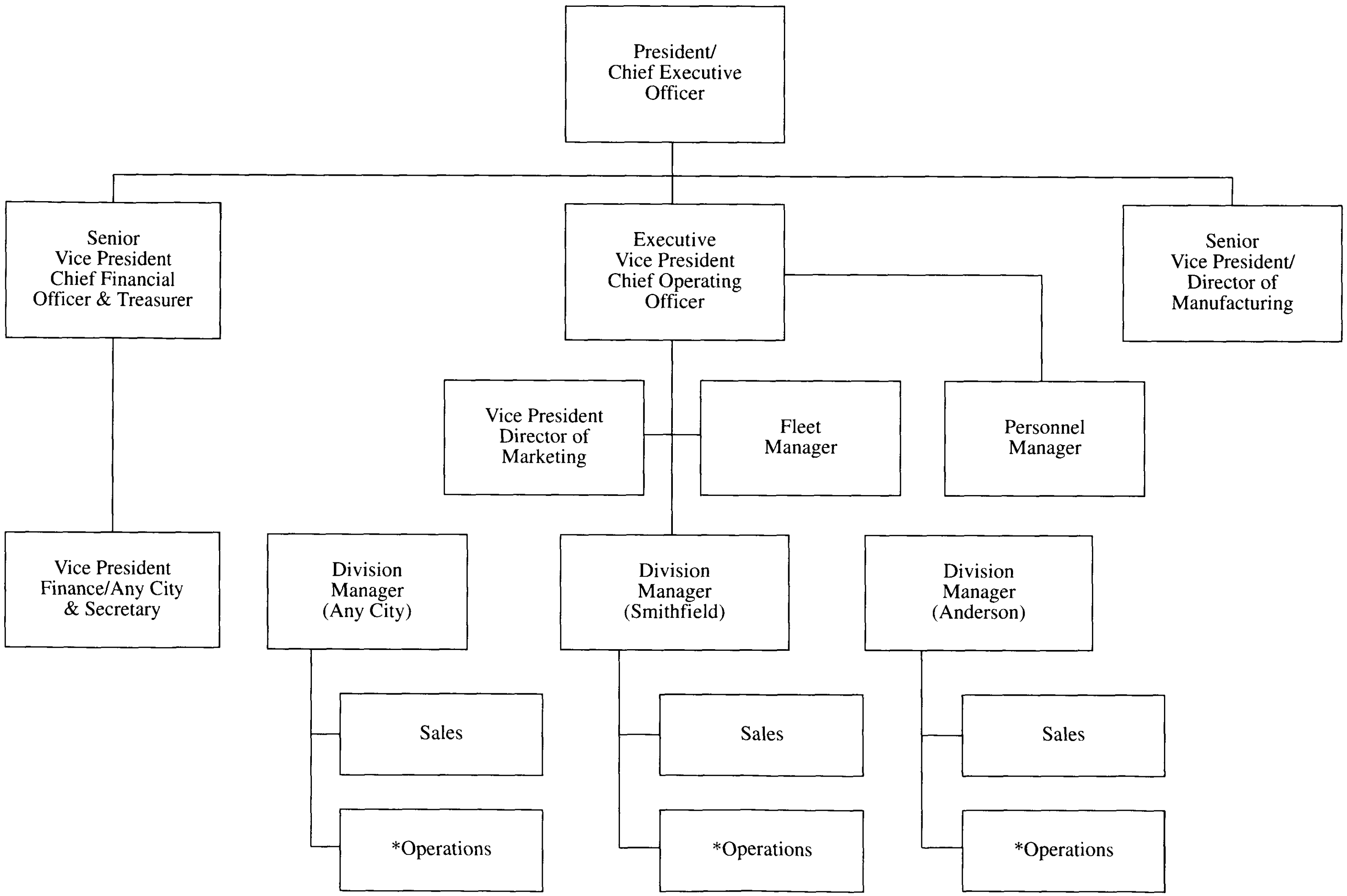
Smithfield

Sales manager
Area managers (2)
Cold drink manager
Distribution manager
Production manager
Warehouse manager

Anderson

Sales center manager
Area managers (2)
Distribution manager
Warehouse manager
Cold drink sales manager

Figure 33B-2
Acquisition Company, Inc.
Proposed Corporate Structure Chart



* Includes nonsales activities: warehousing, shipping and loading, etc.

Figure 33B-3
Any City Division
Proposed Organizational Chart

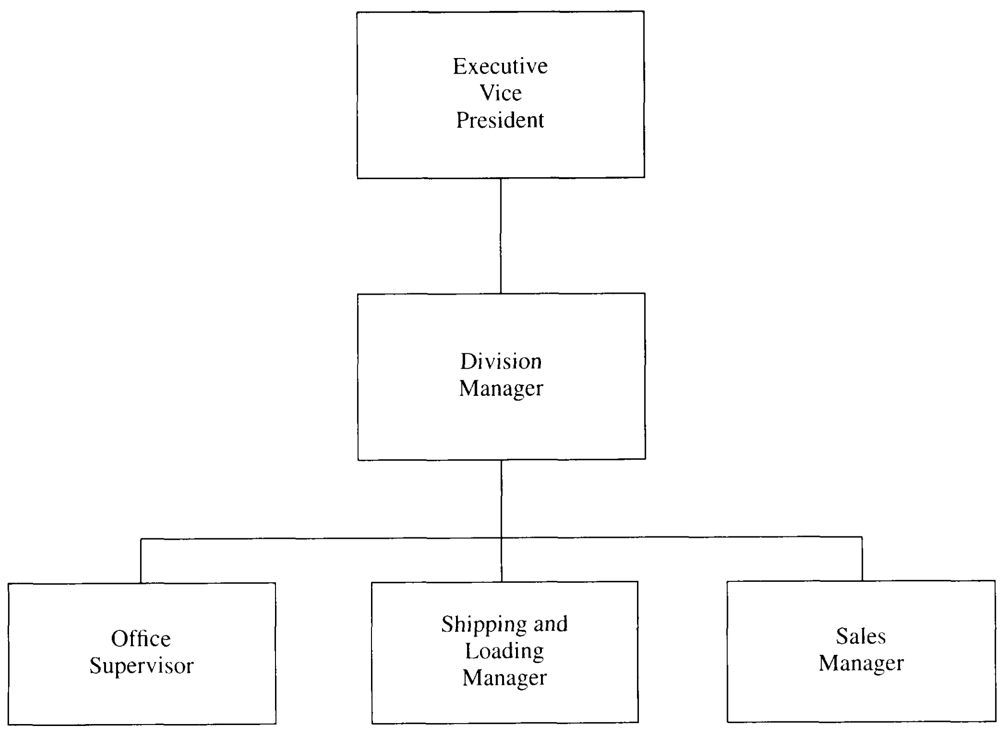


Figure 33B-4
Smithfield Division
Proposed Organizational Chart

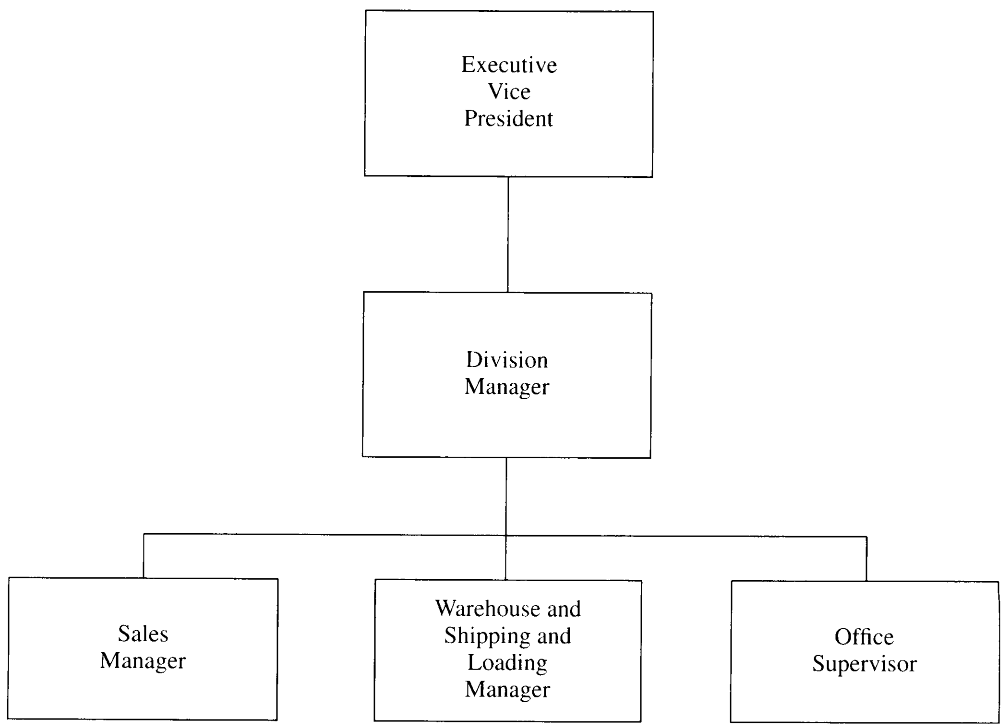


Figure 33B-5
Anderson Division
Proposed Organizational Chart

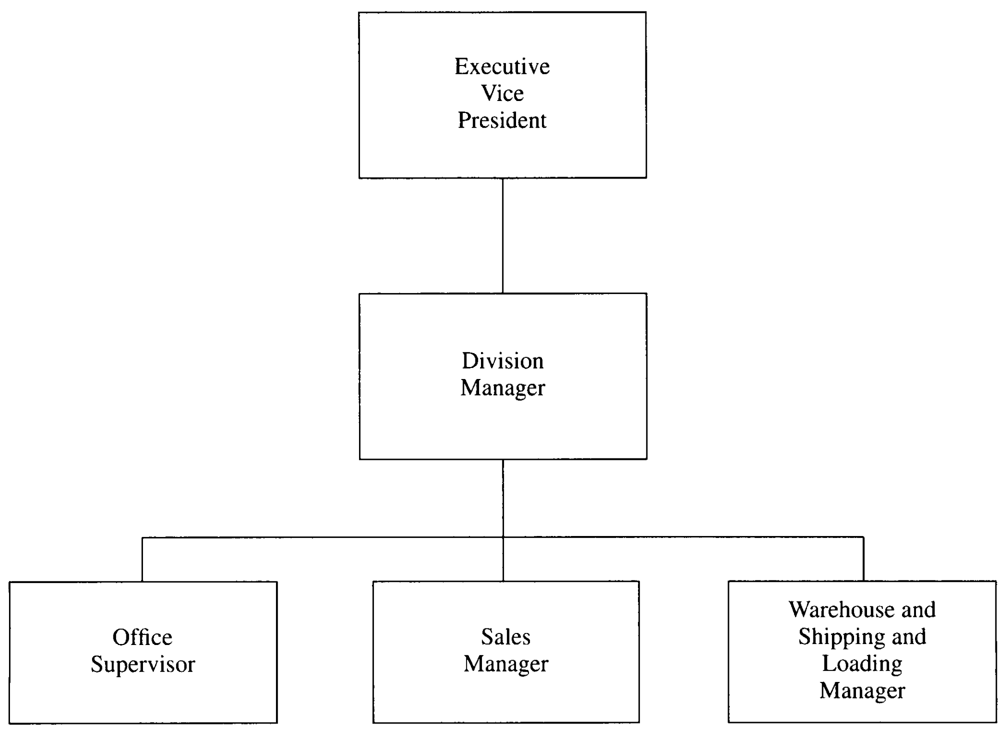
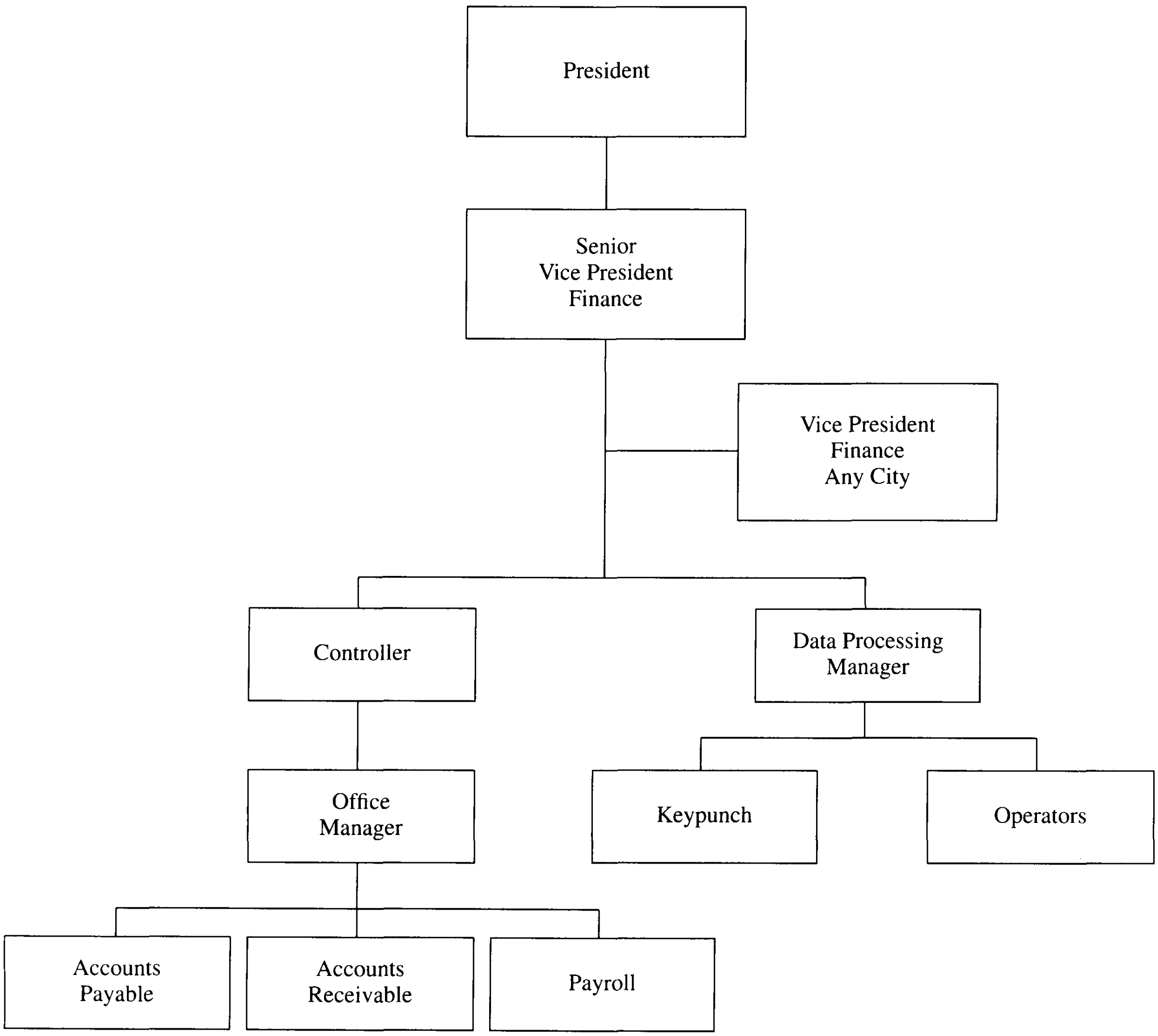


Figure 33B-6
Proposed Corporate
Accounting and Data Processing
Organizational Chart



APPENDIX 33/C

ILLUSTRATIVE MATERIALS

Exhibit 33C-1

Position Description Questionnaire

This is a preliminary step in preparing a description of your job. After completing this questionnaire, discuss it with your supervisor or department head, who will pass it on to the analyst responsible for preparing job descriptions in your area. We will return to you a rough draft of this description for additional comments. Use the back page if there is insufficient space to complete questions.

Your name ________________________________ Date ____________________________

Present title ____

Location _________________________________ Department ______________________

Section ____

1. What is the primary purpose of your job? What makes your position unique?

2. List and explain the costs you are responsible for controlling (i.e., data processing costs, department operating costs, approximate payroll of subordinates, equipment).

3. To what position/s do you report?

4. What job instructions, if any, do you receive and from whom (e.g., submit standard reports to the controller but also receive assignments from branch coordinator; or, report to branch coordinator but receive assignments from mortgage officer)?

5. What control information do you adhere to (e.g., standard operating practices, sales goals, budgets, cost standards)?

6. List the positions you supervise or direct and the total number of your subordinates.

7. With what positions or departments do you have primary working relationships or contact? Describe the nature of each.

8. Describe your subordinates' activities.

9. Describe activities you perform directly. (Don't overlook planning, scheduling, coordinating, expediting, approving.)

10. What problems other than those clearly implied in previous statements do you encounter?

11. What commitments can you make on behalf of the organization?

12. Do you have any external contacts?

13. What results are you responsible for?

14. How do you measure success?

15. Describe anything else applicable to your job not covered elsewhere (equipment responsibility; geographical areas covered; required committees and outside organizations).

16. Comments and approval by immediate supervisor or department head.

____
Employee Signature

Approved By ____________________

Date __________________________

Exhibit 33C-2

Sample Interview Questions

1. Briefly describe your job.

2. What revenues and costs—budgets, sales, payroll—are you responsible for?

3. Sketch briefly your departmental organization, describing each position reporting to you and the position to whom you report.

4. Describe the types of policies you initiate, interpret, or work within.

5. Give some examples of the types of procedures you initiate, interpret, or work within.

6. Give some examples of the planning you do in your job. Do these plans include other departments?

7. What does your boss expect you to accomplish? Which of these activities do you delegate to subordinates?

8. Are you accountable for establishing, approving, or recommending budgets, quotas, performance standards, and so forth?

9. What maximum dollar-approval authority do you have?

10. Describe the type of guidance, direction, or supervision you receive.

11. What formal education and experience are needed to do your job?

12. What human relations skills does your job require? Describe some typical relationships in your job—with subordinates, with other departments, with people outside the company.

13. What about your job would you like to change?

14. What are the best and worst things about your job?

Exhibit 33C-3

Brief Case Study: Organization of the Accounting Department of a Professional Services Firm

The client contacted the practitioner to review the company's accounting procedures and to assess the organizational structure of the accounting department. Of particular concern were the delinquent financial statements and the controller's pending resignation.

The practitioner obtained copies of existing organizational charts and interviewed key personnel, who included the executive director (to whom the controller reported), the departing controller, the accounting supervisor, accounting staff members, and the director of finance. The data gathered revealed the following facts:

- The executive director was relatively new in the position and lacked a financial background.
- The controller had been with the organization for many years but had become disenchanted, losing interest.
- The accounting supervisor applied for the controller position but lacked the necessary qualifications for that job.
- The director of finance, who reported to the executive director, was lobbying for the new controller to report to his position, even though he had little financial background and had gained the title through internal politics.

After reviewing the data, the practitioner constructed a model providing several alternative restructuring approaches. The model assessed the complexities of the various approaches and identified the consequences of each. Using the basic organizational principles of the objective, coordination, balance, and continuity, (see appendix 33/A) the practitioner made the following recommendations:

- Replace the controller with an external hire with very strong qualifications in accounting and finance to offset the executive director's weaknesses in this area.
- Incorporate the duties of the director of finance into the controller position, and reposition the current director of finance in the organization to take advantage of his talent, which had been misdirected.
- Retain the accounting supervisor in his current position because of a lack of qualifications for the controller position.
- Use due care in handling both the director of finance and the accounting supervisor to prevent creating a negative environment.

Exhibit 33C-4

Brief Case Study: Reorganization of Company in Succession of Management

The client has been in a family-owned business for more than one hundred years. The company changed its marketing focus during that time, moving from one business to another four times. The current president, in his senior years, managed in a low-keyed style and deliberately kept the company small-scale. His nephew, who is two generations removed, joined the company and is aggressively attempting to expand it and to succeed his uncle as president. The two key people are compatible even though their goals are conflicting. The practitioner is assisting the client and his nephew in the transition and in developing an organization to meet the company's future needs.

Since little documentation previously existed regarding the company's structure, the practitioner asked all employees to define their duties, responsibilities, and reporting relationships. In addition, the practitioner worked extensively with the client and his nephew in developing a business plan incorporating the company's organizational structure, its marketing direction, operations, and financial requirements.

Using the data gathered, the practitioner prepared an organizational chart providing for groups of activities by area of expertise, including finance, marketing (including internal and external sales activities), operations (including production, purchasing, and delivery departments), and research and development. The practitioner then assisted in analyzing the existing personnel to determine if any were capable of filling spots in the reorganized structure. In some instances, existing personnel were capable, with some training, and in others, external hires were necessary.

Exhibit 33C-5

Brief Case Study: Reorganization of Company in Growth Stage

The client asked the practitioner to help develop a structure that would take the company through its growth stage. The client was an entrepreneur who had championed the company to its current position but had lost interest in the company and was now seeking other endeavors. The company needed someone who could lead it through its growth phase and develop a structure that provided groups of activities, goals and objectives, and policies and procedures.

The practitioner gathered data by interviewing key personnel and department heads, using questionnaires, and distributing an attitude survey to all organization members. The practitioner also gathered information on the proposed future of the industry and reviewed current marketing procedures and sales reps arrangements. While gathering data, the practitioner learned the president considered positioning the company for a public offering, which would influence the proposed organizational structure.

After analyzing the data, the practitioner assessed the direction of the company and the types of activities and skills required to move it in its desired direction. The practitioner proposed elevating the current vice president of operations to president and using an executive search to locate vice presidents of marketing and of finance. The president was removed from the operations to a role of consultant in research and development, which closely correlated to the client's interests and background. The practitioner significantly revised the company's policies and procedures to provide a structure that would attract potential investors. The company operated under the revised format until earnings stabilized sufficiently to make the public offering.

BIBLIOGRAPHY

American Institute of Certified Public Accountants. *Business Planning.* MAS Small Business Consulting Practice Aid Series, no. 6. New York: AICPA, 1986.

Daft, Richard L. *Organization Theory and Design.* 2d ed., rev. St. Paul, Minnesota: West Publishing Co., 1988.

Fallon, William F., ed. *AMA Management Handbook.* 2d ed., New York: American Management Association, AMACOM Special Projects Division, 1983.

Famularo, Joseph J. *Organization Planning Manual.* New York: American Management Association, 1979.

Kast, Fremont E., and Rosenzweig, James E. *Organization and Management: A Systems and Contingency Approach.* New York: McGraw-Hill, 1985.

Maynard, H.B. ed. *Handbook of Business Administration.* 2d ed., New York: McGraw-Hill Book Company, 1970.

Quay, John. *Diagnostic Interviewing for Consultants and Auditors.* Columbus, Ohio: Quay Associates, 1986.

Van Doren, Glenn H., and Nadler, Stephen D. *Management Advisory Services Manual.* Boston: Warren, Gorham & Lamont, Inc., 1987.

V

Information Technology
Services

Part V—Information Technology Services

40/100 INFORMATION SYSTEMS PLANNING AND GENERAL DESIGN

CONTENTS

40/100 INFORMATION SYSTEMS PLANNING AND GENERAL DESIGN

40/105 SCOPE OF THIS PRACTICE AID

.01 Computers are so pervasive in business and government today that many engagements—no matter what the objective—will touch on the client's use of them. For example, an engagement to develop a cost accounting system will probably involve use of the client's computer to process, store, and retrieve data. Consequently, many engagements in which the primary objective does not involve information systems become information systems engagements in part.

Common Types of Activities in Information Systems Engagements

.02 Information systems engagements may conveniently be divided into two major categories: (*a*) those involving assistance to a client in developing information systems and (*b*) those involving advice to a client concerning the acquisition or operations of information systems equipment. The following list contains several information systems-related activities that fall into each of the major categories.

.03 Information Systems Development

- Long-range systems planning
- General systems planning and design
- Detailed systems design
- Program specifications
- Implementation planning
- Programming and testing
- Systems testing
- Conversion and volume testing

- Implementation
- Postimplementation evaluation

.04 Information Systems Acquisition or Operations

- Request-for-proposals (RFP) development and vendor evaluation and selection
- Vendor contract negotiation
- Information technology operations review
- Computer performance evaluation
- Specific systems evaluations
- Information technology security review
- Software package evaluation and selection
- Standards for information systems design and development
- Development of accounting systems for the function of systems development of the information technology department

.05 The five major activities in the information systems development process are systems planning, general systems design, detailed systems design, program specifications (and file design), and programming. A practitioner may be asked to assist a client through the entire system development process or with only one or more of those activities. Accordingly, information systems engagements may differ significantly in scope.

.06 This section focuses on the two initial design activities, systems planning and general systems design. For illustrative purposes, it discusses an engagement in which the practitioner is to develop an automated purchasing and receiving system for a company that buys and sells items without further processing. For purposes of the illustration, it is assumed that an existing computerized inventory system is based on manually prepared receiving slips and withdrawal slips and a manual sales forecasting system.

.07 The new computerized purchasing-receiving system is to be designed to provide—

- Weekly preparation of purchase orders based on inventory amount compared to sales forecast and known lead times, purchase prices, price breaks, economic order quantity, vendor performance factors, and freight charges.
- Matching of inventory receipts with purchase orders outstanding.

- Determination of cash requirements based on forward purchase orders and planned stock purchases.
- Updating of inventory files based on receiving reports.
- Vendor evaluation reports based on performance of commitments.

40/110 CONCEPT AND ASPECTS OF SYSTEMS DESIGN

.01 The design of a system, from systems planning through computer program coding, is accomplished as a series of design decisions over time. Because user participation is vital, the user must understand these decisions and be involved in making them. As the design process moves forward, decisions are made that progressively limit the alternative methods available for automating the system.

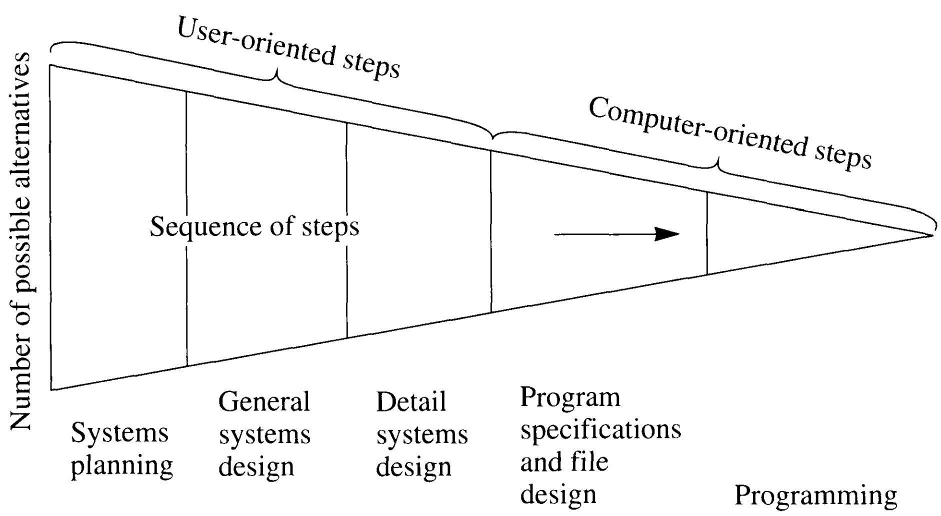
.02 Consider a proposed system the objective of which is to provide timely information to key members of management comparing actual cost with budget. Such a general objective can be met by a large number of alternative methods. For example, the processing of data can be performed manually or by computer. The reports can be issued daily or weekly. The reports can be delivered in hard-copy form or on video display and can be displayed in account number sequence or size-of-variance sequence.

.03 In the course of the design process, these and other general decisions will be made. In time, within the framework resulting from these decisions, more detailed alternatives will be considered. For example, if data processing is to be performed by computer rather than manually, which computer should be used? If reports are to be issued weekly, to whom and at what level of detail will they be provided? If reports are to be provided in hard copy, will they be provided in actual size or reduced?

.04 Toward the end of the design process, when a detailed framework has been established, there still will be design decisions to be made. For instance, if all editing of input transactions is to be performed within one computer program, in what sequence will each stage of editing be? Finally, even when the user aspects of the system have been decided and the general computer system has been defined, the programmer will still need to make programming design decisions as the work progresses.

.05 This, in concept, is the design process. It can be represented graphically by the figure on the following page, in which five design steps are shown as segments of a continuous process of decision-making in progressively finer detail.

Figure 40-1
The Design Process



.06 In general, the orientation and knowledge of the people involved in the design process differ at each stage. For example, the first three steps generally require extensive user participation and detailed understanding of what the system is to accomplish, whereas the last two require greater involvement of individuals with an in-depth understanding of hardware capabilities and programming techniques.

.07 At several points in the design process, management will need to examine the design recommendations and the projected time and cost. Consequently, the process must provide stages at which decisions and outlook are brought into focus and documented so that management can examine them and make decisions about the future direction of the project. Such points usually occur at the end of both systems planning and general systems design, as well as at other times during the process. Different design situations will, of course, require different treatments.

40/115 TYPICAL ENGAGEMENT SITUATIONS

.01 An engagement involving systems planning and general systems design can occur under several different circumstances, of which the following are representative:

- A client already has a small number of applications on a computer but wishes to expand its use.
- A client is currently using a computer for several systems that overlap and use the same data and wishes to integrate them into a system with a common data base.
- A client is dissatisfied with its present computer system because it performs only the basic functions of each subsystem and does not provide the meaningful management information reports that could be derived.
- A client is considering a new business venture and needs to define the systems that will be required.
- A client faces new or revised legal or contractual requirements or constraints that must be incorporated into applicable systems.

.02 The engagement to develop a purchasing and receiving system used as an illustration in this practice aid involves a combination of these circumstances, as is often the case in such engagements.

40/120 ENGAGEMENT CONSIDERATIONS

.01 Systems design engagements often involve a client that is relatively uninformed about computers, including what must be done, how it must be done, and what will result. Through lack of practical experience or technical expertise, client personnel may think of the computer as a machine that responds to every request immediately and without difficulty. This simplistic view of data processing can cause many misunderstandings, if not outright failure, in a systems design engagement.

.02 It is essential that the client support the implementation of a computer system. Consequently, while the client needs to be willing to consider and understand the process, the practitioner needs to try to describe it in terms the client can grasp. The chances for success of an engagement are greatly enhanced when the client understands the objective and how it can be achieved, the nature and amount of the contribution to be made by client personnel, and the role of the practitioner throughout the process.

.03 Practitioners need to consider whether they can make available the necessary technical competence (from within or outside their organizations) in the time period during which the client will need it. Different types and degrees of skill may be needed on an systems design engagement to perform planned tasks with maximum efficiency, and making each skill available at the appropriate time can be demanding and complex.

.04 Many consulting services practitioners conduct systems planning and general design engagements and often find that they lead to additional engagements. However, some pitfalls, such as the following, can complicate or limit the accomplishment of the engagement objective and should be avoided.

- Inadequate definition of user requirements
- Inadequate level of user involvement
- Lack of practitioner familiarity with viable systems alternatives
- Inadequate or imprecise definition of the scope of the engagement
- Unrealistic schedule deadlines
- Unrealistic client expectations about benefits
- Misunderstanding regarding the nature of the anticipated outputs
- Inadequate identification of recurring and one-time costs

40/125 ENGAGEMENT OBJECTIVES AND CLIENT BENEFITS

.01 The objective of an engagement involving systems planning and general systems design is generally to set in motion and carry to a specified completion point an action that will ultimately lead to the achievement of client benefits similar to those identified below. The engagement objectives statement for the sample engagement dealing with a purchasing-receiving system might be worded as follows in a proposal or engagement letter:

> To conduct a study and document the requirements of a computerized purchasing-receiving system providing purchase orders, receiving reports, vendor evaluation, and cash requirement forecasting
>
> To identify systems design alternatives and to select the most advantageous for further study
>
> To document the general work flow of the proposed system; the types and frequency of inputs and outputs; and the equipment, software, personnel and other resources necessary to convert and operate the system
>
> To identify special conversion considerations
>
> To communicate findings, recommendations, and overall schedules and budgets covering subsequent phases

.02 Well designed information systems have the potential of providing any or all of the following benefits:

- Greater accuracy of information
- Improved timeliness of information
- Additional information for management purposes
- Increased productivity
- Reduced processing cost

.03 Overstatement or misrepresentation of a client's benefits can imperil the effectiveness of an engagement. To prevent misunderstanding, the practitioner needs to be precise and exercise caution when stating the expected benefits of the engagement. Achievement of these potential benefits depends heavily on the client's future actions.

.04 Beyond the primary benefits, there are others of obvious value that a client may gain from a systems design engagement. The most common is increased understanding, and consequently more effective use, of the new systems.

40/130 ENGAGEMENT SCOPE

.01 Defining the scope of an engagement to develop information systems usually involves consideration of three factors: the functions, the organizational components, and the phases of the project. Though the scope of a systems design engagement is usually defined in these terms, there are instances in which scope is defined not only by what is included but also by what is excluded. For example, if a particular engagement task is to be performed independently by client personnel or by a different consulting organization, it would be identified as being excluded from the scope of the engagement. If some of the functions normally associated with the system under review are to be excluded from processing because of special handling requirements, these also would be identified as excluded.

.02 For the illustrative purchasing-receiving system, the scope of the engagement might be defined as follows in a proposal or engagement letter:

> The scope of this engagement will include the planning and general design of a computerized purchasing and receiving system. This system will use existing sales forecasting and inventory systems to produce purchase orders, receiving reports, vendor evaluation reports, cash requirement reports, and input to the inventory system. The design will include purchasing and receiving functions performed within the purchasing and receiving department in the XYZ facility only and will not include changes to the inventory system. The inventory system must be revised to accommodate input from the purchasing-receiving system, but such changes are not part of this engagement.

40/135 ENGAGEMENT APPROACH

.01 The approach is an overview of the steps in the engagement process. Appendix 40/A provides a detailed list of steps that might be used in the systems planning and requirements analysis and in the general systems design activities. The approach to a specific engagement is generally defined by the steps to be accomplished for the specific engagement, how they will be accomplished, and in what sequence.

.02 A general systems design engagement usually requires that considerable information be gathered from within the organization about pertinent existing operations, inputs and outputs, and requirements for the system to be designed. If the approach involves extensive interviews with client management and other personnel, problems of access to needed data could arise if the client is not so advised.

.03 A proposal or engagement letter for a project involving systems planning and general design engagement might describe the process as follows:

> This engagement will undertake systems planning and general design in a two-phase approach.
>
> Steps in the systems planning phase include—
>
> - Determining and organizing members of the project team and identifying their specific responsibilities.
> - Gathering additional data related to the current system and system requirements by interviewing key personnel and users.
> - Reviewing relevant documentation covering system plans and procedures, as well as current system costs and reports of deficiencies related to the system under study.
> - Planning in detail the tasks to be performed during system planning and reviewing them with the project team.
> - Identifying deficiencies related to the system under study.

- Identifying requirements and classifying them as either *must have* or *like to have.*
- Developing criteria for the system to be designed.
- Identifying major systems design alternatives.
- Preparing and presenting findings and recommendations.

Steps in the general design phase include—

- Planning in detail the tasks to be performed during general design and reviewing them with the project team.
- Assisting in the selection of those alternatives most feasible for further study.
- Preparing a general work flow indicating generic types of input and output for the selected alternatives.
- Estimating the resources needed (equipment, personnel, and software) and the costs for selected alternatives, including matters such as implementation, conversion, operation, maintenance, site preparation, forms, file conversion, and education and training of personnel.
- Preparing an analysis comparing selected alternatives with the criteria developed in the earlier stage and presenting recommendations.

.04 Depending on the scope and nature of the engagement, the steps described in the proposal or engagement letter would be less or more detailed than in the above illustration.

40/140 ENGAGEMENT OUTPUT

.01 The end products of the work described in the approach essentially define the extent of the engagement. That is, the engagement, by definition, is the work necessary to produce the agreed-upon outputs. The term *general design* implies certain outputs, but the implications of the phrase may differ greatly for the practitioner and the client.

.02 Engagement output usually consists of the practitioner's documentation as well as engagement report documents provided to the client. Appendix 40/A, as already noted, provides a list of steps, or tasks, that might be performed in a general systems design engagement and the output that could result from each step.

.03 The end product of a general systems design engagement is generally a document or report that might include the following elements:

- System narrative
- System flowchart
- Input documents
- Output reports
- Description of all files
- Data entry description for automated systems

- System benefits and cost analysis

- Project schedule and budget

.04 In this type of engagement, the documentation of the proposed system and a transmittal letter often constitute the report. The transmittal letter generally recapitulates pertinent background and engagement conduct information. Worksheets, charts, memos, letters, interview notes, questionnaires, and other materials that led up to the development of the system specifications generally become part of the practitioner's record of the engagement.

.05 For a systems planning and general design engagement, typical outputs might be described as follows in a proposal or engagement letter:

> The output of these two phases would be a documentation manual for each system, containing the following elements:
>
> - A general system flowchart
> - Sample reports and transaction documents
> - Tentative file descriptions
> - A general system development plan showing development priorities and the time frame over which the system realistically can be developed

.06 The outputs of a general systems design engagement are not yet so standardized that the technical terms for them, such as systems flowchart or systems narrative, mean the same to all who read them. Illustrations of segments of certain outputs for a purchasing-receiving system are provided in detail in the next section. The following paragraphs describe some of these outputs in more general terms.

.07 A *systems flowchart* indicates who has what information, in what form or format, and of what quality, when, where, why, and as a result of what processing steps.

.08 A *statement of system requirements* identifies *must have* and *like to have* items and indicates the reason, such as "legal requirements," "needed to ensure sufficient operating capital on hand," "president wants," and so forth.

.09 A comparison of system alternatives matches alternative systems against client management's selection criteria. For the selected system alternative there may be the following:

- A system narrative describing the system objectives, types of inputs and outputs, processing controls, and any user hardware, such as executive terminals, anticipated for use in the system

- A system flowchart indicating the flow of paper to and from the processing center and the timing of the flow

- A description of the anticipated file content—not organization—of many new master files that must be developed for the system

- A system installation plan for the remaining phases showing estimated costs

.10 In addition, there may be the following materials as part of the engagement output:

- A system planning phase report covering the recommendations developed during that phase

- A general design phase report covering the recommendations developed during that phase

- Worksheets, charts, memos, letters, interview notes, questionnaires, and other supporting materials

.11 As noted in section 40/110, "Concepts and Aspects of Systems Design," the systems design process starts with a perceived potential for improvement and ends when all computer programs have been completed. The practitioner has a professional responsibility to define, with the utmost practical precision, the point in that process at which the engagement is expected to end. At this stage the client would be requested to acknowledge that the agreed-upon work has been completed.

40/145 ILLUSTRATIONS OF ENGAGEMENT OUTPUTS

.01 The following paragraphs illustrate portions of typical data (outputs) developed during a systems planning and general design engagement relating to a purchasing-receiving system.

Statement of Objectives

.02 The objectives of the computerized purchasing-receiving system are to facilitate and make more economical the functions of purchasing and receiving, to reduce inventory stock-outs without increasing inventory carrying charges, to reduce expediting requirements, to facilitate most-favorable-vendor selection, and to forecast with greater accuracy cash requirements for purchased items.

Types of Inputs

.03 *Vendor input*. Number, name, and address of vendor; identification of items normally purchased from vendor; performance rating; lead time and price breaks by item purchased; payment conditions of vendor.

.04 *Item nomenclature*. Thirty-character description of item; item number.

.05 *Receipts input.* Vendor number; purchase-order number; line-item number; quantity; item number; disposition code.

Types of Outputs

.06 *Purchase order.* Stock number; stock description; quantity ordered; unit cost; total cost; vendor name and address; purchase-order number; purchase-order date.

Content of Master Files

.07 The items listed below may appear within several different files. File organization will ultimately determine which redundancies are to be retained or dropped.

.08 *Purchase-order detail file* (for each line item)

- Stock number
- Quantity ordered
- Stock description
- Unit of measure
- Unit cost
- Vendor number
- Vendor name and address
- Freight rate
- Purchase-order number
- Purchase-order date

.09 *Receiving detail file* (for each receipt)

- Date of receipt
- Packing-slip number
- Purchase-order number
- Line-item number

- Vendor number
- Stock number
- Quantity received
- Unit cost
- Freight rate
- Vendor lead time

Processing Controls

.10 *For receiving reports.* For each receiving report input to the system, verification will be made by the system of the correct purchase-order number and item number. For each batch of receiving reports, batch control will be performed against a hash total of receiving-report numbers.

APPENDIX 40/A

SYSTEMS PLANNING AND GENERAL DESIGN TASK OUTPUTS

The tasks and outputs illustrated here are not intended to establish engagement requirements, since each engagement is different. The chart serves only as a reference for developing the unique task and output requirements that in the practitioner's professional judgment are appropriate for a specific engagement.

Phase I System Planning (including Requirements Analysis)

Task	Output and Purpose
Identify the problem or new requirements in their present or future context	*Initial statement of requirements.* To define potential benefits, to provide a formal means of communicating the scope of the project, and to provide a document for continuing reference.
	Work program for Phase I. To record plan for Phase I evaluation effort.
Define project objectives, scope, and approach	*Scope and objectives memorandum.* To communicate to top management scope, objectives, and the general nature and cost implications of the development project.
Define the time/priority elements	*Section of scope and objectives memorandum.* To identify any absolute timing requirements and to determine the priority of various aspects of the project.
Evaluate consistency with and impact on the organization's long-range planning	*Development plan and consistency memorandum.* To reconcile the project's objectives and time frame with the long-range plan, either reinforcing the long-range plan or updating it.
Prepare proposal	*Proposal letter.* To present to client management a clear statement of the requirements and the proposed approach to the project.
Establish project control system	*Employee time report.* To provide a means for reporting time worked by individuals assigned to the project.
	Project analysis. To provide cumulative time summaries and task completion data for project control purposes.
	Personnel analysis. To provide information on the progress of the project personnel by providing an estimated completion date and work load analysis for all assignments.

Task	*Output and Purpose*
	Project status. To summarize the status of the major steps in the work program and to identify areas requiring review, action, or decision by management.
Study system flow and existing documentation, noting discrepancies	*Current system documentation evaluation.* To document observations and results of interviews and to reconcile existing system documentation with actual system operation. Discrepancies will be noted in order to update existing documentation and to provide a starting point for future systems development.
Determine present volumes	*Volume analysis.* To analyze the volume and flow of system inputs and outputs, including source documents for each application, recycled errors, output reports, turnaround documents, control listings, and so forth.
Cost out present system	*Analysis of equipment costs.* To provide a basis for economic evaluation by summarizing the equipment costs of the present system by department and function.
	Analysis of personnel costs. To provide a basis for economic evaluation by summarizing the personnel costs of the present system by department and function.
	Analysis of other costs. To provide a basis for economic evaluation by summarizing all significant costs other than personnel and equipment by department and function.
Identify any external influences and constraints including other system interfaces	*Current system influences and constraints (detail).* To document existing system influences and constraints related to data flow, reporting frequency, other system interfaces or dependencies, hardware/software availability, and the like.
	Current system influences and constraints (summary). To ensure adequate consideration in design of new system by highlighting design interfaces with other systems, special processing conditions, and so forth.
Define advantages and disadvantages of existing system	*Current system evaluation.* To document the advantages and disadvantages of the existing system for use in this and subsequent phases.
Start development of specialized glossary if terminology is unique to this industry or the system	*Glossary file.* To serve as a ready reference for "jargon" peculiar to the particular industry, the firm, or the system being studied.

Task	*Output and Purpose*
Prepare analysis of existing system	*Current system analysis.* To analyze aspects of the existing system, including documentation, volume analysis, costs, interactions, constraints, and advantages/disadvantages. This memo will communicate the work performed to management and serve as a basis for deciding on future system development.
Determine system requirements	*System requirements statement.* To document the system requirements, including business functions served, service levels (frequency of processing, availability of reports or data, and so forth), processing approach, and the like.
Develop criteria for evaluating business system alternatives	*System evaluation guide.* To provide a comprehensive list of the evaluation criteria, such as operating costs, response times, and the like.
Identify alternative solutions	*Alternative solution analysis.* To record the potential practical methods available (manual/mechanical, batch/on-line, and so forth).
Develop conceptual system flows and gross cost approximations for alternative solutions	*System flow (overview).* To portray the processing flow of the alternative systems, showing inputs, outputs, and major functions. *Cost estimates (equipment, personnel, and other costs).* To provide gross cost estimates of the development and operating costs of alternative systems.
Present recommendations to management, reviewing available alternatives and estimated requirements of the recommended program	*System recommendation.* To outline to management the recommendations for future system development based on the analysis made to date. *Cost/benefit analysis.* To present gross costs and benefits related to the long-range plan and to the specific problems identified. *Requirements and work program.* To present the recommended system development work program, including specific tasks, man-days required, and timetable.
Obtain authorization to continue, to rework, or to terminate	*Authorization memo.* To obtain management's evaluation of progress to date and authorization to continue, to rework, or to terminate.

Phase II General System Design

Task	*Output and Purpose*
Define systems requirements in greater detail	*Functional specifications.* To facilitate system design by summarizing application system requirements in terms of— • Major business functions, service levels, concepts, and objectives • Possible additional improvements in present business functions • Output requirements • Input requirements • File requirements • Control requirements • Processing and timing requirements
Prepare general work flow of the application system design and design alternatives	*Work flows.* To provide a basis for explaining the system to key personnel and for evaluating alternative flows.
Identify any special conversion considerations required for the design alternatives	*Special condition analysis.* To provide an analysis of special conversion considerations for alternative systems.
Determine equipment, personnel, utility software, outside service, and other resources necessary to implement, convert, operate and maintain the design alternatives	*Equipment, personnel, and other cost analyses for the most probable alternatives.* To provide an updated picture of steps and costs necessary to implement the most probable alternatives. *Equipment, personnel, and other cost analyses for other alternatives.* To provide comparative data on less-probable alternatives.
Determine the benefits and limitations of each design alternative	*Alternative system benefits and comparisons.* To facilitate subsequent analysis and decision by documenting the benefits and limitations of each alternative system.
Prepare comparative analysis of design alternatives	*Alternative system comparisons and cost/benefit analysis.* To provide a systematic analysis and comparison of alternatives.
Present recommendations to management and obtain authoriza-	*Design specifications.* To present the system specification to client management for evaluation and analysis.

Task	*Output and Purpose*
tion either to continue with detailed systems design of selected design alternative, to rework, or to terminate	*Authorization.* To obtain management authorization to continue into the design phase, to rework the tasks previously completed, or to terminate the project.

APPENDIX 40/B

SAMPLE ENGAGEMENT LETTER

Many sections of this practice aid contain examples of language that might be used in a proposal or engagement letter to describe aspects of the engagement. They refer to a systems planning and design engagement for a computerized purchasing-receiving system.

As an additional aid to practitioners, a sample outline for a complete engagement letter is provided here, using, where appropriate, the language from the text. There is no intent to establish a standard format. In practice, proposals and engagement letters differ widely, depending on the circumstances of the specific engagement.

Introduction and Background

(As appropriate for the engagement.)

Engagement Objectives

The objectives of our engagement would be to—

- Conduct a study and document the requirements of a computerized purchasing-receiving system providing purchase orders, receiving reports, vendor evaluation, and cash requirement forecasting.
- Identify systems design alternatives and select the most advantageous for further study.
- Document the general work flow of the proposed system; the types and frequency of inputs and outputs; and the equipment, software, personnel, and other resources necessary to convert and operate the system.
- Identify special conversion considerations.
- Communicate findings, recommendations, and overall schedules and budgets covering subsequent phases.

Engagement Scope

The scope of this engagement will include the planning and general design of a computerized purchasing and receiving system. This system will utilize existing sales forecasting and inventory systems to produce purchase orders, receiving reports, vendor evaluation reports, cash requirement reports, and input to the inventory system. The design will include purchasing and receiving functions performed within the purchasing and receiving department in the XYZ facility only and will not include changes to the inventory system. The inventory system must be revised to accommodate input from the purchasing-receiving system, but such changes are not part of this engagement.

Engagement Approach

This engagement will undertake system planning and general design in a two-phase approach.

Steps in the system planning phase include—

- Determining and organizing members of the project team and identifying their specific responsibilities.
- Gathering additional data related to the current system and system requirements by interviewing key personnel and users.
- Reviewing relevant documentation covering system plans, procedures, and current system costs and deficiencies related to the system under study.
- Planning in detail the tasks to be performed during system planning and reviewing them with the project team.
- Identifying deficiencies related to the system under study.
- Identifying requirements and classifying them as either *must have* or *like to have.*
- Developing criteria for the system to be designed.
- Identifying major systems design alternatives.
- Preparing and presenting findings and recommendations.

Steps in the general design phase include—

- Planning in detail the tasks to be performed during general design and reviewing them with the project team.
- Assisting in the selection of those alternatives most feasible for further study.
- Preparing a general work flow indicating generic types of input and output for the selected alternatives.
- Determining the resources and costs required to implement, convert, operate, and maintain the selected alternatives (needed resources would include equipment, personnel, software; cost consideration would include recurring costs as well as site preparation, forms, file conversion, education and training, and other pertinent cost factors).

- Preparing an analysis of selected alternatives compared the criteria developed in the earlier stage and presenting recommendations.

Note: Depending on the nature and complexity of the engagement, the steps described in the proposal or engagement letter may be less or more detailed than in the foregoing illustration.

Engagement Output

The output of these two phases would be a documentation manual for each system, which would contain the following elements:

- A general system flowchart
- Sample reports and transaction documents
- Tentative file descriptions
- A general system development plan showing development priorities and the time frame over which the system realistically can be developed

Project Staffing and Schedule
(As appropriate for the engagement.)

Fee and Billing Arrangements
(As appropriate for the engagement.)

BIBLIOGRAPHY

Biggs, Charles, Evan G. Birks, and William Atkins. *Managing the Systems Development Process.* Englewood Cliffs, N.J.: Prentice-Hall, 1980.

Brandon, Dick, and May Gray. *Project Control Standards.* New York: Brandon Systems Press, 1970.

Brandon, Dick, Arnold Palley, and Michael A. O'Reilly. *Data Processing Management: Methods and Standards.* New York: Macmillan Publishing Co., 1975.

Cushing, Barry E. *Accounting Information Systems and Business Organizations.* Reading, Mass.: Addison-Wesley Publishing Co., 1974.

Gane, Chris, and Trish Larson. *Structured Systems Analysis: Tools and Techniques.* Englewood Cliffs, N.J.: Prentice-Hall, 1979.

Gildersleeve, Thomas R. *Data Processing Project Management.* New York: Van Nostrand Reinhold Co., 1974.

Weik, Martin H. *Standard Dictionary of Computers and Information Processing.* Rochelle Park, N.J.: Hayden Book Co., 1977.

Yourdon, Edward. *Managing the Structured Techniques.* Englewood Cliffs, N.J.: Prentice-Hall, 1979.

41/100 MICROCOMPUTER SYSTEMS

CONTENTS

41/100 MICROCOMPUTER SYSTEMS

41/105 SCOPE OF THIS PRACTICE AID

.01 This practice aid describes the process of converting a small business client's manual accounting methods to a microcomputer-based system. The engagement may be as fully detailed as a conversion for a large business. The practice aid is directed toward a computer-literate audience, including systems specialists. Most of the procedures are also applicable to conversions from an existing microcomputer system to a new one. If the client has already acquired the computer system and applications packages, some of the evaluation steps may not be applicable. However, determining whether the existing system meets the client's accounting objectives can be as important as conversion.

.02 The typical microcomputer installation resulting from this kind of small business engagement consists of one or more central processing units, printers, and monitors, as well as other hardware. In addition to accounting, the business uses the computer system for other applications, such as word processing. The owners of the business and their employees, rather than data processing specialists, use the computers, and they may have no prior computing experience.

.03 This practice aid divides client assistance into two separate engagements. Engagement 1 begins with the evaluation of the current system and concludes with recommendations for a specific software and hardware combination. Engagement 2 involves the actual conversion to the automated system. However, some practitioners may elect to perform the conversion assistance in a single two-phased engagement.

.04 The appendix includes sample engagement letters for both engagements. The sample checklists and work plans, if used by a knowledgeable project leader, can serve as the basis for evaluating the accounting systems needs of a business and selecting an automated system to perform the required functions.

.05 This practice aid is not intended to provide guidance for implementing critical operational (nonaccounting) systems, dealing with the needs of large or complex systems requiring local area networks or multiuser capability, or evaluating minicomputer or mainframe applications. Similarly, the practice aid omits discussion of program development, which requires other kinds of approaches, methods, and practitioner skills.

41/110 ENGAGEMENT 1: EVALUATING THE SYSTEM AND SELECTING SOFTWARE AND HARDWARE

Define the Objectives

.01 The most important task of any system conversion is defining objectives. The definition process typically begins at the initial meeting of practitioner and client when they discuss how the microcomputer system can benefit the client and whether installing the system is feasible. At that time, client management expresses its objectives and expectations about what the computer-based accounting system can do for its business.

.02 Understanding and formalizing the client's expectations of what the microcomputer system can do is very important because many computer novices have unrealistically high expectations that cannot be met economically. A small business client with a manual accounting system may not have the staff or expertise required to realistically plan the conversion. The practitioner helps the client define the objectives of the conversion and describe what results the business can realistically expect.

.03 Rather than attempting to cover all the possible applications and benefits, the practitioner can use this meeting most profitably by focusing on the primary issues or problems facing the business. These problems may include—

- Late and inaccurate monthly financial statements.
- Accounts receivable collection problems.
- Difficulty in meeting shipping commitments.
- Frequent inventory stockouts.

.04 Detailed fact gathering in one or more of the specific problem areas will occur later as part of the engagement. The discussion in the initial meeting can guide the practitioner in preparing the engagement letter and tempering the client's expectations. General information discussed at this meeting may include—

- Data the system can accumulate.
- Reports the system can produce.
- The relative importance and cost of each system element.
- Implementation time frames.
- The possible impact of major system changes on client personnel.

.05 The initial meeting is also a good time for both the practitioner and the client to discuss the importance of first selecting the software and then the compatible hardware. This discussion may be particularly helpful if the client has previously purchased a computer that does not fully support the proposed applications and will require upgrades or additional peripherals, such as hard disks and faster printers.

Establish a Budget

.06 A well-drawn budget clearly reflects the full cost of the conversion and the time required to effectively and efficiently install the system. The practitioner can help the client determine what level of financial commitment will be necessary to execute the entire project: funds are necessary not only for buying and maintaining software and hardware but also for training users, hiring temporary help for master file conversion, and retaining consultant assistance.

.07 It is particularly important that the client recognize the value-added nature of the practitioner's services. If not, the client may compare consulting fees with the cost of hardware and software and feel that the consulting fees are inappropriate. These noncapital expenses can be equal to or greater than the investment in hardware and software, but they are as crucial to the long-term success of the installation as the capital expenses.

Reach an Engagement Understanding

.08 The formal understanding reached at the initial meeting between the practitioner and client will be documented in an engagement letter. The client needs to understand that commitment and participation are necessary for a successful engagement. Exhibit 41-1 provides a sample engagement letter that includes information on the engagement's objectives, benefits, staffing, scheduling, and fees.

Develop an Engagement Work Plan

.09 Using the engagement understanding reached with the client, the practitioner prepares a detailed engagement work plan for the client's approval. The plan defines the steps in the conversion process, outlines the schedule, and assigns specific responsibility for each task. Exhibit 41-2 provides a sample work plan for evaluating the existing system and selecting software and hardware.

Evaluate the Existing Manual Accounting System

.10 The first step in analyzing the feasibility of a microcomputer system is evaluating the existing manual system and determining which accounting applications may be candidates for conversion, which may be processed by a service bureau, and which may remain as manual tasks.

.11 Exhibit 41-3 provides a checklist for identifying key accounting system functions. Exhibits 41-4.1 through 41-4.4 contain individual checklists for several common accounting applications; they will help document the existing system and estimate the extent of the conversion. (If the conversion proceeds in stages, it is important to integrate later additions with what has already been automated. Correction of obsolete or inefficient manual functions can take place either before or during the conversion process.)

.12 The evaluation process comprises two steps: fact gathering and cost-benefit analysis.

.13 **Fact Gathering.** Adequately documenting the client's current business procedures aids in selecting appropriate software applications. The immediate objectives of fact gathering are to obtain—

- A system description sufficient to understand the client's operations.
- Transaction volumes for use in evaluating software and hardware capacity.
- Sample forms used in the client's manual system.
- Costs data for the existing system in order to estimate the projected savings that may result from the conversion.

.14 With an understanding of the client's business, the practitioner can determine which accounting areas lend themselves to automation. Prime candidates for conversion are those with the following characteristics:

- High clerical involvement or labor cost
- Repetitious tasks or a large number of time-consuming tasks
- Mathematically complex calculations
- Record keeping that requires a high degree of accuracy
- Processing that requires timely provision of information
- Need for timely production of management reports
- Processing exceptions based on objective criteria

.15 For example, in the present system one clerk may spend two hours per week processing the client's payroll through a service bureau that provides sufficient and timely reports for management and accounting purposes. Changes in the essential data elements are few but require subjective judgment. Although payroll may be a candidate for conversion to an in-house system, the changeover may not be cost effective.

.16 In contrast, inventory control may require three full-time clerks to post receiving and shipping reports, update inventory costs and stock levels, and determine stock reorder quantities. To determine accurate values of inventory under FIFO, LIFO, and weighted-average cost methods, these clerks perform repetitive mathematical tasks. Thus, stock levels may not be readily and accurately determined. A computerized system, however, can provide accurate, timely information and thus reduce stockouts, prevent unnecessary reorders, and reduce inventory levels in general.

.17 Installing a computer will not by itself resolve manual-system problems. In fact, if the causes of current problems include insufficient accounting experience among the client's staff, adding a new system may well exacerbate the problem. Properly trained and effective personnel are essential for successful systems operation.

.18 The practitioner can assist client management in evaluating the qualifications of personnel with regard to—

- Familiarity with accounting concepts in general.
- Knowledge of their specific jobs.
- Willingness to cooperate in improving the overall accounting system.
- Degree of constructive suggestions to improve the system, whether manual or computerized.
- Experience and education in computer operations.
- Adaptability and willingness to make procedural and system changes.

.19 The result of this evaluation will indicate whether the experience and training of client personnel can meet the requirements of the new system. By discussing personnel considerations and observations with the client, the practitioner will know if personnel changes or additional training are appropriate.

.20 **Cost-Benefit Analysis.** Once fact gathering is complete, the practitioner evaluates the costs and benefits of each accounting application, bearing in mind that costs are concrete whereas benefits are often intangible. Exhibit 41-5 provides a sample preliminary cost analysis worksheet.

.21 How much will the financial performance of the business improve? This is a major consideration in estimating the benefits of a computer system. For example, if the client's current accounts receivable turnover rate is eight times per year, what savings may result if that rate rises to nine times? Again, if sales increase at a rate of 12 percent per year how will the increase affect cash flow in three years?

.22 It is prudent to anticipate and plan for an increase in the client's software and hardware costs during the three-year period immediately following the engagement because new technology may dictate replacing the software, the hardware, or both. Protection against obsolescence is justified even though the planned hardware and software may continue to perform satisfactorily at anticipated future volumes.

Evaluate Nonaccounting Operations

.23 Other computer applications, such as word processing, data base management, and spreadsheet programs, are useful not only in applying the accounting function, but also in meeting overall business needs. Hardware suitable for accounting applications will usually run these nonaccounting applications with the addition of appropriate software. However, some accounting programs cannot transfer data to nonaccounting software.

.24 The practitioner needs to determine what role other generic applications will play in the accounting function. For example, if the volume of customer invoicing is low, should the client consider using a word processor in lieu of an automated billing system? If other packages are either currently in use or planned, the practitioner and client need to consider their specific hardware requirements to avoid incompatibility and additional future costs.

Prepare a Needs Evaluation Report

.25 The practitioner summarizes the evaluation process in a report to the client that prioritizes needs, describes recommended applications, and proposes a range of solutions, often organized by application. The practitioner also notes any change in the planned work program that results from the evaluation. (Exhibit 41-6 provides a sample report.)

.26 The needs analysis report also addresses the results of the cost-benefit analysis, defines potential productivity and profitability improvements, and provides the basis for selecting the recommended software. The client acknowledges and approves the facts in the report.

Select Software

.27 Using the client-approved needs list in the report, the practitioner evaluates the appropriateness of specific software. Software can be general-purpose, custom-written, or industry-specific (that is, vertical—prepared for specific clients, such as doctors, automobile dealers, or real estate agents).

.28 It is unlikely that the cost of a custom-written accounting application can be justified for a microcomputer. However many vendors make source codes available to customize their general-purpose software for unique situations. With care and appropriate technical skills, minor customization of such packages can result in a better solution for the client. Industry-specific software is frequently packaged with compatible hardware by turnkey software houses or hardware manufacturers.

.29 Another consideration in selecting software is its availability in a noncopy-protected form. Copy-protected software generally limits the number of times the software may be copied, or it requires that an original copy be present in a floppy-disk drive to operate the software. Situations such as hardware failure, disk upgrading, or even operator error may necessitate making an additional copy. If the user needs to obtain a new program disk from the vendor to effect such a change, a costly delay may occur.

.30 The software selection process can easily consume an inordinate amount of time and money because of the number and similarity of software packages available. Therefore, it may be preferable to limit the search and evaluation process to the apparent top two or three applicable packages (determined by personal experience, dealer recommendations, and user comments). Many experienced practitioners repeatedly recommend and implement one or two product lines of accounting applications for their clients, unless these preferred systems clearly will not handle the client's requirements. By having extensive experience with a particular system, the practitioner can realize substantial cost savings in all aspects of conversion assistance engagements.

.31 **Automated Software Selection Programs.** Microcomputer software packages (such as Sherry Tate's Matchware and Computer Training Service Inc.'s Guide to Accounting Software for Microcomputers, which includes The Requirements Analyst) are commercially available to evaluate other software applications. They work by matching individual needs with program features and producing a report that ranks each software package according to its ability to meet those needs. The programs cover nearly all possible features offered by the various application programs and thus reduce the possibility of overlooking an important feature. However, the practitioner and client need to carefully review automated application selection reports for accuracy in light of the client's specific needs. These packages do not evaluate subjective considerations, such as ease of use, availability of qualified installers, quality of documentation, vendor support, or requirements for unique forms. Aided by the practitioner's professional experience and guidance, the client needs to evaluate these factors separately.

.32 **Review of Sales Literature and Articles in Periodicals.** Other methods of determining how a particular package will meet the client's software needs are to review the sales literature for several vendors' packages and to study the client's current system and management reports. The practitioner and at least one client representative can work together in listing software applications that meet specific needs, based on the client's requirements and desired functions. Articles in computer magazines evaluate accounting software programs and can be a source of important information on such factors as ease of installation and use, ability to handle errors and create audit trails, and versatility. (The bibliography at the end of this practice aid contains a list of computer magazines.) However, the client may have specific requirements that the articles do not consider or the terminology in the articles may not match the client's industry or specific usage.

.33 **Vendor Demonstrations.** After carefully reviewing the software programs of various vendors, the practitioner and client may narrow their choices to a few vendors. At this point they may request a vendor demonstration to see the system operate and determine the vendor's product knowledge.

.34 It is generally not economical to prepare a formal request for proposals (RFP) for microcomputer accounting applications, nor will most microcomputer vendors respond to RFPs, except in very large multi-copy sales situations. Rather, it is usually appropriate for the client and practitioner to visit dealer offices for a demonstration. The demonstrations are most beneficial when the practitioner advises the vendor about the client's needs and concerns. This permits the vendor to "customize" the demonstration.

.35 General operations of the software, security procedures, and a demonstration of the specific features the client requires are possible agenda items for the demonstration. A vendor evaluation checklist, such as the one provided in exhibit 41-7, is helpful. As part of the evaluation, the practitioner obtains the names of other users from the vendor and contacts them or has the client contact them, paying particular attention to the user's hardware configurations, operating systems, and similarity to the client's business environment. The practitioner may also ask the vendor to provide financial references.

.36 During demonstrations, the practitioner can examine the software in great detail to make sure it satisfies the client's needs, particularly those that are critical or unique to the business. For example, does the payroll module support piecework? Can an employee work both hourly and on a piecework basis? Are commissions based on salesperson, product, or both?

.37 **Balancing and Controls.** Balancing and control features are critical to maintain automated systems. However, vendors and dealers often overlook these features in documentation and demonstrations. The practitioner needs to determine that the software provides proper system controls and the capability of balancing master files, input data, and financial statements.

.38 **Documentation.** Well-organized, professionally prepared documentation is an important feature of all software packages. The client and practitioner need to review a vendor's software program documentation. They will frequently refer to the software documentation, especially during the implementation phase. Exhibit 41-8 provides a checklist for evaluating the documentation, the vendor's or manufacturer's warranty, and special features.

Select Hardware

.39 After selecting software, the client and practitioner work together to select hardware that can run the software. The following factors and hardware performance characteristics may become important:

- Availability of manufacturer support
- Ease of equipment operation
- Ease of use of the system software utilities
- Compatibility with other microcomputers

- Reliability of the hardware, hardware vendor, and manufacturer
- Environmental considerations (heat, noise, and electrical requirements)
- Adaptability to peripherals such as printers, modems, and monitors
- Ability to link up with other manufacturers' systems through local area networks or other means
- Availability of other programs
- Availability and cost of servicing, if needed
- Ability to expand to multiuser version
- Hardware cost

.40 It is of the utmost importance that the client select a system fully capable of accepting data input, processing it, and generating the required output within a reasonable length of time. The practitioner needs to verify these capabilities during both the demonstration and the reference-checking process. Exhibit 41-9 provides a useful checklist for identifying hardware requirements.

.41 The microcomputer's data storage capacity should allow for appropriate growth. (Most software vendors have checklists and forms to determine file storage requirements for accounting applications. The initial cost of purchasing a system with expandable storage and processing capacity will be considerably lower than upgrading later.) It is strongly recommended that a hard-disk system be used with accounting applications, even in the smallest installations. The hard disk offers numerous advantages, including increased processing speed, ease of use (no disk swapping), and improved data protection.

Prepare a Summary Report of Software and Hardware Recommendations

.42 After completing the software and hardware evaluation, the practitioner may prepare a formal report for client approval, including selection criteria, a list of the software applications and hardware configurations selected, and reasons for the selections. This summary report will help to eliminate future misunderstandings between client and practitioner about these decisions. A sample summary report of software and hardware recommendations is included in this practice aid as exhibit 41-10.

41/115 ENGAGEMENT 2: IMPLEMENTING THE AUTOMATED SYSTEM

.01 After the client has decided to install a system, the practitioner may propose a follow-up engagement to assist in implementing the system.

Establish an Engagement Understanding

.02 To start off, the practitioner establishes, and documents in a formal engagement letter, an understanding with the client about the practitioner's role in the system's implementation. Exhibit 41-11 is a sample engagement letter.

.03 The practitioner needs to advise the client that many factors—some controllable, others not—influence the ultimate success of the system implementation. Examples of controllable factors are—

- Preparation of coding schemes.
- Sizing and inputting of initial data.
- Training of client personnel.

.04 Examples of noncontrollable factors are—

- Degree of client management support.
- Reliability of hardware.
- Quality of software selected.
- Responsiveness of hardware and software vendors to problems with their products that may arise.
- Attitudes and capabilities of client personnel who are responsible for operating the system.

.05 One of the goals of the engagement is to minimize the potential impact of the uncontrollable factors through a process of systematic evaluation and implementation.

Identify Practitioner, Vendor, and Client Responsibilities

.06 A successful system implementation engagement requires that all parties know their responsibilities. An implementation work plan, such as the one illustrated in exhibit 41-12, lists specific tasks that the practitioner, vendors, and client need to complete. The practitioner prepares the work plan, describing each task in sufficient detail so that the person who will perform it clearly understands what to do. The practitioner also maintains separate plans for each individual participating in the implementation. The client normally approves the work plans and then reviews them with the vendor to secure agreement.

Determine a Schedule for Completion of Each Task

.07 After developing the work plan and defining responsibilities, the practitioner schedules completion dates for every task in the plan in order to effectively control the installation. These dates need to be realistic and allow for interruptions, if necessary.

.08 During installation, the practitioner communicates and coordinates the schedule with all parties. Frequent meetings are needed to review progress, discuss problems, and make adjustments in the work plan. If necessary, the practitioner distributes an amended work plan showing revised start and finish dates promptly after each meeting, with the client's acknowledging and agreeing to any changes.

Develop Coding Systems

.09 The coding system affects the quality and usefulness of the information the computer system produces. Virtually every accounting system depends on a coding system, which comprises general ledger account numbers, department or division designations, salesperson numbers, sales tax codes, payroll deduction codes, customer types, and so on. These codes control report formatting, calculations, running totals in quantities and dollars, and other facets of a client's business.

.10 Whoever prepares these codes needs to carefully consider the desired reporting and sorting sequences. One of the most significant benefits of an automated system can be management reporting, and many microcomputer accounting packages have powerful report writers that provide reporting flexibility. The practitioner can facilitate implementation by anticipating future reporting requirements and planning for the collection and organization of the data through proper input coding. Coding structures require documentation and will be especially important if other accounting applications are installed in the future.

.11 For example, the general ledger program may require specific ranges of account numbers to differentiate the client's assets, liabilities, equity, income, and expenses. These ranges may or may not match the client's existing account coding. Changing the client's manual chart-of-accounts coding may enable the general ledger system to produce more useful reports.

.12 For accounts receivable or accounts payable applications, the client and practitioner may wish to assign numbers to customers and vendors in alphabetical order. If so, the assigned numbers should have large gaps between them so that new customers or vendors can be added. Alphabetization aids (for numbering data fields) can simplify this task, and embedding a Standard Industrial Classification Code number within the customer or vendor number can serve marketing purposes.

.13 Many computer applications require defining and entering certain codes in a specific sequence. For example, the computer operator may need to define all valid salesperson numbers before entering customer data that includes the salesperson number.

.14 With manual methods, input documents (such as sales invoices and journal entries) and most master file records (such as those for employees, customers, and vendors) often do contain numeric or other standard coding. To facilitate coding for conversion, input, and possibly output, documents may require redesign. The client's or practitioner's staff needs to do this as soon as they establish codes so that new forms can be printed and available when the system is operational.

Install Hardware

.15 Delays in delivery, environmental factors, technical problems, and unplanned events can hamper the physical installation of any computer hardware, even the least complex microcomputer. For example, installing a microcomputer in an overheated room or on unstable furniture can cause the operator to be uncomfortable and may be harmful to the equipment. The computer work area needs good, glare-free lighting, adequate AC (alternating current) power supply, and reliable air-conditioning and heating facilities. Telephone-line access is necessary if the new system includes communications applications. (Telephone lines that bypass PBX installations may be necessary for some applications.) All the equipment needs power surge protectors because power fluctuations can not only hamper operations but also seriously damage hardware components. In winter or in dry climates, static electricity can cause a major problem. It can be overcome by using static-arresting pads, grounding the hardware, or placing a humidifier in the work space.

.16 Standard office desks or worktables are generally not adequate for comfortable, efficient operation of computers. The keyboard area needs to be lower than the height of standard desk tops for the same reason that secretarial desks have a lower surface on which to set a typewriter. Each workstation needs space (and possibly an adjustable copyholder) for documents containing input data. Furniture manufacturers and specialty office equipment companies provide a large array of convenience items, such as slide-out keyboard drawers, swiveling monitor stands, central processing unit (CPU) tabletops and stands, and diskette storage cabinets. Most computer stores also offer various items that can make the work space efficient and comfortable.

.17 Stock supplies, such as diskettes, printout paper, and printer ribbons, are generally available from office supply and even discount stores. However, special forms (for example, bank check stock and invoices, preprinted labels, and letterhead stationery and envelopes) may take four to six weeks to print and therefore should be ordered in advance to ensure their availability when the system is first operational.

Establish Security Procedures

.18 **Passwords and Physical Locks.** Documenting and consistently using security measures can prevent data loss and unauthorized access to confidential material. Some good security measures include the following:

- Passwords for computer access

- Physical locks
- Procedures for backup and recovery of data
- A contingency plan to replace a system quickly in case of hardware failure
- Storage of system diskettes in a locked container
- An amended insurance policy to provide for loss contingencies, such as business interruptions

.19 The client should select passwords randomly, using several different methods and avoiding obvious codes, such as social security numbers, last names, operator birth dates, or relatives' names. A list of passwords and the names of those to whom the passwords are assigned need to be stored in a safe deposit box or other off-premises location for future reference. Backup of password files and revision of off-site copies are necessary each time a password is changed.

.20 A small business in which one person normally controls an entire application (if not the entire accounting system) requires provisions for obtaining access to data in the event of that person's sudden, unexpected absence (because of, say, a major accident). The client needs to continue operating the business, collecting receivables, paying employees and trade vendors, and so on. Therefore, an off-site written record of necessary codes and passwords is imperative.[1]

.21 **Backup Recovery Systems.** An effective disk- or tape-based backup and recovery system is essential to avoid a potentially catastrophic loss of data. The client needs to regularly back up programs and data files, maintaining copies of all files at a secure off-site location for use in case the on-site files and backup copies are destroyed.

.22 The client also needs the off-site location to maintain copies of other data essential to the operation of the organization, such as system documentation. In addition, printed reports of recent balances, customer lists, inventory information, and the like are stored in the off-site location. If the client restores computer files from backup copies, he can use totals and other data from printed reports to verify that the restored data is correct.

.23 An automated accounting system requires sophisticated backup procedures. Maintaining three generations of backup copies for all files ensures the client's ability to recover as much data as possible, even if the most recent backup copy is "corrupt." Ideally, each separate accounting module in an integrated system (for example, general ledger or accounts receivable) will have a separate backup. Floppy disks and streaming tape are efficient and cost-effective backup media, and the choice between them depends on the volume of data.

.24 The computer operators can maintain logs showing which files were backed up, the operator's name, and the date and time of the backup. (The backup medium itself should indicate the files it contains, the accounting date through which the processing has been completed, and the date of the backup.) If possible, the log entry indicates or summarizes the day's work

[1] Additional guidance is provided in sections 42/100, "Disaster Recovery Planning," and 46/100, "Microcomputer Security."

performed, in case the backup or restoration is unsuccessful and reentry of the data is necessary. Exhibit 41-13 provides a sample backup log.

.25 An important and often overlooked element of an effective backup procedure is recovery. When errors are detected—such as lost data or corrupt files—the backup copy will be useless if no one knows how to restore the data to the system. Therefore, users need to know how to read the logs to determine which backup media to use, how to read the media labels to be sure of selecting the correct backups, and how to carry out the procedures correctly to restore the data.

.26 Restoring the files of an integrated accounting system may be more complicated than restoring a single application. For instance, it is necessary to determine whether to restore an application's data files to the original date. Detailed written procedures explaining these concepts are essential because the procedures are rarely used. Outside help may be necessary to assist with extensive recovery operations.

.27 To be sure that operators understand the detailed procedures for backup and recovery, the practitioner may decide, with client approval, to simulate a failure to catch the client personnel off guard and observe how they handle a crisis. Since vendor-supplied backup procedures are usually incomplete or incorrect, conducting a trial run can save many hours of trouble if a real problem occurs later on. Users can also learn valuable lessons by removing a set of data files (and possibly the system files) and reloading the system from the backups.

.28 **Monitoring Procedures.** Specific facts about an operation are difficult to remember; so most computer systems have manual monitoring procedures. These provide information about system capacity utilization, scheduling conflicts, and response time of hardware and software vendor support, and they can also identify and resolve certain problems.

.29 Monitoring activities may include recording all computer activity in a log similar to the one in exhibit 41-14. Users who experience a problem with any aspect of the computer system record the problem in a report for future reference and management review. Exhibit 41-15 provides a sample problem report.

Install the Application Software

.30 Installation procedures for accounting software applications include the following basic steps:

- Read the installation instructions in the software documentation.
- Determine the specific location (directory reference) of programs and data files on the disk.
- Copy all application programs to their respective locations. This may require using the vendor's installation procedures rather than a simple "copy" operation.
- Set any optional parameters such as printer selection or paper size.

- Create all data files on the basis of sizing requirements decided by the client.

.31 Additional installation steps may be necessary. For example, most operating systems provide special utilities for testing disk surfaces to confirm their integrity. After installing the application software, another step is to compare a printed list of all programs on the disk to the vendor's list of the software provided in order to verify that the installation is complete and accurate.

Supervise Creation of Data Files and Master Files

.32 Computer systems may have as many as three major types of files—for example, control, special code, and history files—that require data before an operator can enter current balances. Planning and documentation of this initial data entry are essential.

.33 *Control files,* such as company files that contain continually updated information about the organization, are normally entered first. They need to be selected carefully because inadequate control files can have a significant impact on the application's effectiveness.

.34 *Special code files* contain allowable values for entries into the system—for example, tax codes, salesperson numbers, terms-of-sale codes, and shipping method codes. Again, careful thought is necessary in setting up special codes for a client.

.35 *History files* contain financial information from prior periods. These files provide the basis for developing comparative financial reports, such as balance sheets and income statements. Historical data is particularly important for monitoring company performance and budgeting.

.36 *Master files* may contain common information about customers, vendors, general ledger accounts, or inventory items. Software manuals often include forms for collecting the required information. Master file data may be entered in stages, but the general ledger files will usually be set up all at once.

Establish Controls for Data Input

.37 Control of data input is essential to produce accurate and complete computer files. The controls, which can include document counts, item counts, dollar totals, batch totals, and hash totals, are suitable for monitoring the input of both start-up information and daily operations. If input is accurate, the previously established control values will correspond with the computer-generated output. Maintaining a daily log to verify key accounts, such as cash, accounts receivable, and accounts payable balances, is also useful.

.38 The practitioner may assist the client in developing checklists that define the steps in daily processing, including the calculation of appropriate control totals. Exhibit 41-16 provides a sample daily processing checklist for accounts receivable.

.39 If the volume of data input requires use of temporary help, the practitioner may suggest that the client let the temporary personnel maintain the old system so as to free client personnel to work with the new system. If temporary workers build the new system, their knowledge and training will be lost to the client when they leave.

Verify Initial Balances

.40 After entering the start-up data into the system, the practitioner verifies the entries by comparing the report totals and client information in the manual system with the computer-generated reports and data. To gain familiarity with, say, the computerized accounts receivable system, the client may enter and process data for a few customers and compare the results with similar data in the old system—a practice known as parallel processing—until the results obtained with the computerized system are satisfactory. In many instances, however, parallel processing is impractical because the client does not have sufficient staff to operate both systems. Furthermore, parallel processing can be time consuming and costly. In any case, parallel processing is not a substitute for adequate controls, balancing procedures, and proper verification of reports.

.41 Since the transition from a manual to a microcomputer-based system is usually difficult, the practitioner naturally tailors the conversion to the client's operating environment and technical skills. It is seldom advisable to abruptly terminate an existing manual system and depend entirely on a relatively untried and unfamiliar new system. Therefore, the expense of parallel processing may be justified if its use helps the client avoid impairing business operations because of conversion problems.

Conduct Training Courses

.42 The goal of training is to make the client's staff thoroughly familiar with every aspect of the tasks they will perform when using the operating system, application software, and hardware. Before creating master files, the operators need to know the daily, weekly, monthly, and annual processes for which they will be responsible.[2]

.43 **Initial Training.** The operators receive hands-on experience in running the system with test data before working with live data. Initial training may use independent study, one-on-one instruction, or group teaching. Many dealers and vendors offer training or computer-assisted training aids, including demonstration data. In some areas, community colleges and other private and public educational institutions offer training in scheduled classes or in customized formats. The many options vary greatly in cost and effectiveness, so careful consideration of the operators' skills and previous experience is important in selecting the proper method of instruction.

.44 Client personnel should input historical and other master file data. This activity provides an excellent opportunity to use the software menu system, understand cursor movement, and

[2] For additional guidance on training, see section 45/100, "Microcomputer Training."

become knowledgeable about the software's editing and error-correction functions. In addition, personnel become familiar with the contents of the system's master and data files.

.45 Continuing Training. Although the initial training may be adequate for installation tasks, it may not include all the procedures operators need to know to work on a complete accounting system. Additional training shortly after installation is complete alerts users to the new system's options and features. In planning for such training, the practitioner considers the capabilities of the client's staff, the amount of time required, the location of suitable facilities, and the cost.

.46 Plans for training new staff are also necessary. The client's staff may be skilled enough to train new users in-house. However, if a key employee leaves, the practitioner or vendor may need to train the employee's successor.

Establish Requirements for Document Storage and Retention

.47 The practitioner and client plan for the storage and retention of important data, including output reports, source documents, and backup disks or tapes. The plan includes documenting procedures and locations for storing and retaining files. In addition, operators need to learn specific storage tasks and understand the importance of those operations in a well-functioning system.

Conclude the Engagement

.48 After completing implementation, the practitioner meets with the client to discuss the conclusion of the engagement. They acknowledge completion of the specific steps of the engagement by signing off on each one. The practitioner advises the client that additional services will be billed separately and may follow up with a letter confirming the conclusion of the engagement and the terms for any additional services.

.49 Periodic Reviews. Periodic meetings make it possible to realistically evaluate the new system by reviewing its progress, reassessing the capability of the software and hardware, and evaluating the performance of the people who run the system. Such meetings are particularly helpful if a client retains unrealistic expectations about the automated system and underestimates the effort required to make the system function effectively.

.50 Management's information requirements may also change over time and the system may need modification or enhancement. Clients may also have reservations about their newly installed computer systems, even though the systems are producing the results desired. They may hear about new or revised applications or read advertisements on equipment with features that appear to produce greater results at a lower cost than their systems. By anticipating these concerns and helping the client determine whether and what enhancements to introduce, the practitioner can promote long-term client satisfaction.

.51 **Ongoing Support.** Many other opportunities for additional service to the client exist as an outgrowth of a successfully implemented microcomputer installation. A success in one or a few applications usually leads to automation of additional functions; success in providing better, more timely management information often leads to engagements for higher-level management assistance, analysis, projections, and planning.

.52 In addition, errors and problems will, of course, arise from time to time in any system. Some practitioners plan for timely assistance to clients in emergency situations by installing modems and communications software on the client's system during the initial conversion. This can allow remote operation and debugging of client problems from the practitioner's office.

41/120 CONCLUSION

.01 Few activities produce as much anxiety for business owners and managers as conversion from a manual to an automated accounting system. Practitioners can reduce this anxiety by assuring their clients that with proper controls and planning, a conversion can take place with a minimum of disruption to operations and personnel. Among the most critical elements of the engagement are definition of objectives and analysis of needs. These establish the parameters of the automated system and help the client adopt reasonable expectations for performance and cost. Other major activities include software and hardware selection, physical installation, and staff training.

APPENDIX 41

SAMPLE FORMS AND LETTERS

Exhibit 41-1

Engagement Letter—Evaluation and Selection

CPA & Company
Anytown, USA 00000

August 1, 19XX

Mr. Joseph White
XYZ Corporation
100 Main Street
Anytown, USA 00000

Dear Mr White:

I appreciated the opportunity to meet with you to discuss automating your company's accounting systems. This letter outlines the arrangements we made to assist you in meeting your company's automation needs.

Engagement Objectives

The objectives of our engagement are to make recommendations about (1) which of your manual accounting systems are appropriate for computerization and (2) which specific hardware and packaged software will satisfy your requirements.

Engagement Scope

CPA & Company will analyze your company's manual accounting system and procedures and review available hardware and packaged software. Since our firm is not supplying the hardware and software, we cannot give you an express warranty of fitness for a particular purpose. However, the hardware and software vendors supply a limited warranty.

The engagement will last five days, beginning on August 3, 19XX, and ending on August 7, 19XX. We will perform all work in accordance with the Statements on Standards for Consulting Services set forth by the American Institute of Certified Public Accountants.

Engagement Approach

We will use a step-by-step approach, as follows:

1. Define your requirements for a microcomputer-based accounting system. To identify appropriate changes or enhancements, we will evaluate your current manual system and interview selected personnel. This fact-finding will—

- Determine what data the system will contain.
- Define the reports you wish to have.
- Establish the transaction volume.
- Estimate the importance of each system element.

2. Determine your manual system costs so that we can estimate the potential savings of converting it to an automated system.

3. Evaluate the cost-benefit relationship of each accounting application being considered for conversion, as well as nonaccounting applications that are useful in the accounting function, so that you may decide what accounting elements to automate.

4. Establish criteria to select specific software packages. Use the criteria to rate the features of commercially available software packages, review relevant literature, and evaluate vendor documentation.

5. Identify and evaluate compatible hardware alternatives.

Your company will be expected to do the following:

- Provide the necessary records or documents.
- Make your staff available for interviews and meetings.
- Cooperate with our staff in developing solutions.

Engagement Benefits

When we complete this engagement, our report will provide you with an opportunity to review and discuss your accounting requirements for data processing and reporting and the suggested software packages and hardware for satisfying your company's accounting requirements. This knowledge will help you make an informed decision about which software/hardware system is best for your company.

Engagement Staffing and Scheduling

As we stated earlier, we will begin the engagement on August 3, 19XX and expect to complete it in five days. During this period your staff will be heavily involved, especially you and your comptroller. The greater your staff's participation in this engagement, the easier it will be for them to adapt to the automated system.

I will supervise the consulting engagement. Harold Baines, who has performed similar evaluations for the last ten years, will be in charge of the fieldwork.

Engagement Completion

We will conclude the engagement by giving you our analysis of your company's automation needs and our software and hardware recommendations. At that time we will also submit our final report.

If, during the course of the engagement, either of us becomes aware of circumstances that would preclude its successful conclusion, either party may terminate the engagement by notifying the other in writing.

After we conclude the engagement and deliver our final report, we can provide implementation guidelines and assistance. At that time, we will submit our proposal for providing additional services, if you desire them.

Fee, Billing Arrangements, and Payment

We base our fee for this engagement on time expended at our standard hourly rates. We estimate the cost of the project at $X,XXX plus any out-of-pocket expenses, such as transportation costs or materials costs.

A retainer fee of $XXX is due on your acceptance. We will bill you for the balance and out-of-pocket expenses on August 31, 19XX, and we will expect payment by September 15, 19XX.

Acceptance of the Engagement

Please acknowledge acceptance by signing this letter and returning one copy to us, together with a check for $XXX. Thank you for retaining us. We hope this will be the beginning of a long and mutually beneficial relationship.

Sincerely,

John Doe, CPA

Approved by______________________________
President

____
Date

Exhibit 41-2

Work Plan—Evaluation and Selection

Client ____

Task	*Estimated Hours*	*Assigned to*	*Performed by**	*Start Date*	*Target Date*	*Completion Date*
Define and document client's objectives.						
Prepare engagement letter						
Evaluate current system:						
Document accounting procedures.						
Determine transaction volume.						
Estimate (approximately) current accounting costs.						
Define personnel functions.						
Evaluate and document nonaccounting applications.						
Estimate costs of automated system.						
Establish and prioritize application criteria.						
Prepare summary report needs for client and obtain acknowledgment.						
Evaluate software.						
Compare with application criteria.						
Evaluate documentation.						
Contact other users.						
Select vendors and obtain appropriate software.						
Evaluate hardware.						
Determine characteristics.						
Evaluate performance.						
Select vendors/ manufacturers.						
Prepare summary report for client.						

*Key: C = client; P = practitioner; VS = vendor-software; VH = vendor-hardware.

Exhibit 41-3

Checklist of Accounting System Functions

Company name ______________________________

Department, division, subsidiary name ______________________________

Client contact ______________________________

Industry ______________________________

Number of subsidiaries/divisions ______________ Department ______________
(List on separate sheet.)

Applications

_____ Accounts receivable/receipts
_____ Accounts payable/disbursement
_____ General Ledger
_____ Inventory
_____ Payroll/personnel

_____ Job cost
_____ Process cost
_____ Purchase order
_____ Sale order
_____ Fixed assets
_____ Point of sale

Other ______________________________

____

____

Current applications ______________________________

____

____

Number of accounting personnel ______________

Last year's sales	$______________	Cost of sales	$______________
Net income	______________	Number of customers	______________
Number of vendors	______________	Number of employees	______________

Exhibit 41-4.1

Checklist of Application Functions—General Ledger

Features	*Required*	*Desirable*	*No Need*	*Frequency*
Data elements				
Year-to-date data	( )	( )	( )	________
Monthly budget data	( )	( )	( )	________
Prior-year actual data	( )	( )	( )	________
Code number length				
Department codes	( )	( )	( )	________
Company codes	( )	( )	( )	________
Nondollar accounts	( )	( )	( )	________
Reports				
Chart of accounts	( )	( )	( )	________
Transaction journal	( )	( )	( )	________
General ledger activity	( )	( )	( )	________
Trial balances	( )	( )	( )	________
Income statement				
Monthly and year-to-date	( )	( )	( )	________
Year-to-date only	( )	( )	( )	________
Balance sheet	( )	( )	( )	________
Operating budget	( )	( )	( )	________
Schedule				
Actual vs. budgeted	( )	( )	( )	________
Actual vs. prior year's	( )	( )	( )	________
Department expense reports				
Customized reports	( )	( )	( )	________
Other				
____________________	( )	( )	( )	________
____________________	( )	( )	( )	________
Processing				
Transaction batch data entry	( )	( )	( )	________
Real-time (on-line) posting	( )	( )	( )	________
Multicompany processing	( )	( )	( )	________
User-defined fiscal months	( )	( )	( )	________
Automatic reversing entries	( )	( )	( )	________
Recurring entries	( )	( )	( )	________
Automatic monthly closing	( )	( )	( )	________
Prior-period adjusting	( )	( )	( )	________
Balanced batched-only processing	( )	( )	( )	________
Error detection and correction	( )	( )	( )	________

Features	*Required*	*Desirable*	*No Need*	*Frequency*
Special				
Inquiries	( )	( )	( )	________
Graphics	( )	( )	( )	________
Interface with data manager	( )	( )	( )	________
Loan amortization capabilities	( )	( )	( )	________
Present and future value calculations	( )	( )	( )	________
Other				
____________________	( )	( )	( )	________
____________________	( )	( )	( )	________
____________________	( )	( )	( )	________
Data importing	( )	( )	( )	________
Data exporting	( )	( )	( )	________
Consolidation	( )	( )	( )	________

Exhibit 41-4.2

Checklist of Application Functions—Accounts Receivable

Features	*Required*	*Desirable*	*No Need*	*Frequency*
Data elements				
Basic data: customer name, address, phone number; credit limit, current balance, customer classification	( )	( )	( )	______
Sales data: sales representative contact, tax status, current-month and 12-month sales history	( )	( )	( )	______
Shipping address	( )	( )	( )	______
Aged trial balance on demand	( )	( )	( )	______
Finance charges	( )	( )	( )	______
Last sale date	( )	( )	( )	______
Last invoice, last payment	( )	( )	( )	______
Average time to pay	( )	( )	( )	______
Reports				
Invoices	( )	( )	( )	______
Customer list	( )	( )	( )	______
Customer labels	( )	( )	( )	______
Invoice, cash receipts, and accounts adjustment list	( )	( )	( )	______
Trial balance	( )	( )	( )	______
Statements on demand	( )	( )	( )	______
Aged accounts receivable list	( )	( )	( )	______
Cash flow report	( )	( )	( )	______
General ledger transaction summary	( )	( )	( )	______
Processing				
Batch data entry	( )	( )	( )	______
Balance entry	( )	( )	( )	______
Open item	( )	( )	( )	______
Automatic sales tax	( )	( )	( )	______
Credit memos applied to open items	( )	( )	( )	______
Automatic service charge	( )	( )	( )	______

Features	*Required*	*Desirable*	*No Need*	*Frequency*
Cash payments applied to				
Total due	( )	( )	( )	______
Single invoice	( )	( )	( )	______
Multiple invoices	( )	( )	( )	______
Finance charge	( )	( )	( )	______
Cash on account	( )	( )	( )	______
Automatic recurring invoices	( )	( )	( )	______
Custom aging periods	( )	( )	( )	______
Special features				
On-screen inquiry	( )	( )	( )	______
Real-time invoicing	( )	( )	( )	______
Customized invoice format	( )	( )	( )	______
Word processing capabilities	( )	( )	( )	______
Other				
____________________	( )	( )	( )	______
____________________	( )	( )	( )	______

Exhibit 41-4.3

Checklist of Application Functions—Accounts Payable

Features	*Required*	*Desirable*	*No Need*	*Frequency*
Data elements				
Vendor name, address, phone, contact, current amount due (normal terms), current-month and year-to-date purchases	( )	( )	( )	________
One-time vendors	( )	( )	( )	________
Last purchase amount and dates	( )	( )	( )	________
Invoice data: amount, account distribution	( )	( )	( )	________
Invoice date	( )	( )	( )	________
Due date	( )	( )	( )	________
Discount date	( )	( )	( )	________
Receipt date	( )	( )	( )	________
Discount terms	( )	( )	( )	________
Purchase order number	( )	( )	( )	________
Job or product codes	( )	( )	( )	________
Reports				
Vendor master list	( )	( )	( )	________
Invoice and account adjustment registers	( )	( )	( )	________
Open items	( )	( )	( )	________
Checks and stubs	( )	( )	( )	________
Check register	( )	( )	( )	________
Prepaid checks	( )	( )	( )	________
Aged trial balances	( )	( )	( )	________
Cash requirements summary				
Weekly	( )	( )	( )	________
Monthly	( )	( )	( )	________
Purchase journal	( )	( )	( )	________
Form 1099	( )	( )	( )	________
General ledger transaction summary and interface	( )	( )	( )	________
Processing				
Transaction batch processing	( )	( )	( )	________
Invoice payment holding	( )	( )	( )	________
Manual payments	( )	( )	( )	________
Partial payments	( )	( )	( )	________

Features	*Required*	*Desirable*	*No Need*	*Frequency*
Automatic payment selection	( )	( )	( )	______
Custom check format	( )	( )	( )	______
Manual test adjustments to invoices	( )	( )	( )	______
Multiple companies/single vendor file	( )	( )	( )	______
Job cost data	( )	( )	( )	______
Inventory purchases	( )	( )	( )	______
User-defined aging periods	( )	( )	( )	______

Exhibit 41-4.4

Checklist of Application Functions--Inventory

Features	*Required*	*Desirable*	*No Need*	*Frequency*
Basic data				
Item number	( )	( )	( )	______
Item description	( )	( )	( )	______
Quantity on hand	( )	( )	( )	______
Unit of measure	( )	( )	( )	______
Unit costs	( )	( )	( )	______
Unit price	( )	( )	( )	______
Year-to-date units sold	( )	( )	( )	______
Rates of dollar sales to cost of goods sold	( )	( )	( )	______
Inventory category	( )	( )	( )	______
Order-point quantity	( )	( )	( )	______
Order quantity	( )	( )	( )	______
Quantities committed	( )	( )	( )	______
Last vendor/last cost	( )	( )	( )	______
Inventory location	( )	( )	( )	______
Multiple price levels	( )	( )	( )	______
Sales unit of measure	( )	( )	( )	______
LIFO cost detail	( )	( )	( )	______
FIFO cost detail	( )	( )	( )	______
Average cost detail	( )	( )	( )	______
Markup factor	( )	( )	( )	______
Processing				
Transaction batch processing	( )	( )	( )	______
Physical inventory adjustment	( )	( )	( )	______
Tracking of committed sales orders	( )	( )	( )	______
Tracking of sales back orders	( )	( )	( )	______
Tracking of quantities on order	( )	( )	( )	______
Other				
______________	( )	( )	( )	______
______________	( )	( )	( )	______
Reports				
Prices	( )	( )	( )	______
Inventory	( )	( )	( )	______
Receipts	( )	( )	( )	______
Sales	( )	( )	( )	______
Physical adjustments	( )	( )	( )	______
Reorder analysis	( )	( )	( )	______

Features	*Required*	*Desirable*	*No Need*	*Frequency*
Sales (in dollars)	( )	( )	( )	______
Slow-moving items	( )	( )	( )	______
Item cross-reference	( )	( )	( )	______
Stock transfers	( )	( )	( )	______
Physical-inventory worksheets	( )	( )	( )	______
Bin and location labels	( )	( )	( )	______
General ledger summary	( )	( )	( )	______
Graphics capabilities	( )	( )	( )	______

Exhibit 41-5

Preliminary Cost Analysis Worksheet

Estimated Monthly Cost

	Application					
	G/L	*A/R*	*A/P*	*Inv*	*Pay*	*Other*
Automated System						
Software						
Purchase/amortization	___	___	___	___	___	___
Maintenance and support	___	___	___	___	___	___
Other	___	___	___	___	___	___
Hardware						
Purchase amortization	___	___	___	___	___	___
Maintenance	___	___	___	___	___	___
Insurance	___	___	___	___	___	___
Other	___	___	___	___	___	___
Supplies						
Forms	___	___	___	___	___	___
Ribbons	___	___	___	___	___	___
Disks and tapes	___	___	___	___	___	___
Telephone line	___	___	___	___	___	___
Other	___	___	___	___	___	___
Personnel						
Hours	___	___	___	___	___	___
Dollar amount	___	___	___	___	___	___
Ongoing training and support	___	___	___	___	___	___
Total automated cost	___	___	___	___	___	___
Current System						
Personnel	___	___	___	___	___	___
Supplies	___	___	___	___	___	___
Processing charges	___	___	___	___	___	___
Other	___	___	___	___	___	___
Total current cost	___	___	___	___	___	___
Direct cost differential	___	___	___	___	___	___

Exhibit 41-6

Needs Evaluation Report

CPA & Company
Anytown, USA 00000

August 5, 19XX

Mr. Joseph White
XYZ Corporation
100 Main Street
Anytown, USA 00000

Dear Mr White:

Following is a description of the accounts receivable systems and procedures your company employs, the problems we observed during our evaluation, and our suggestions for improving operations.

Procedures

XYZ Corporation produces approximately 450 invoices each month for a base of one thousand customers. Two clerks, Janice and Jane, take orders and produce these invoices. However, Janice alone records the invoices on the customers' subsidiary ledger cards and the sales journal, using a one-write accounting system. Janice controls the invoices, which are prenumbered. However, since Jane also has a supply of the invoices, they are not recorded in sequence.

At the end of each month, Janice prepares an adding machine tape of each customer's ledger card balance and compares the total of the customers' balances with the accounts receivable control balance. The task takes approximately three to four days. Janice then identifies the past-due accounts by examining the individual customer ledger cards, and Jane receives the accounts for collection.

Cash receipts are given to Janice each day, but without any documentation. She records receipts on the customer ledger cards. She then prepares the bank deposit and a four-part bank deposit slip and turns them over to you. The bank validates the deposit slip and keeps two of the parts. Janice retains one customer copy and forwards the other to the accounting department.

Problem Areas

The problem areas are in personnel utilization and internal control. In our opinion, better use of Janice's time will alleviate most of the internal control problems we observed. The current procedures for recording invoices are no longer sufficient because sales volume has risen significantly. The increase in the daily number of invoices over the past six months has caused a bottleneck at the end of each month.

A very competent employee carries out the routine task of proving accounts receivable. However, the aging of accounts is done only once a month, by which time some accounts are over thirty days past due. In addition, customers with seriously past-due accounts can still make purchases.

As mentioned in our management letter, the same person should not be responsible for recording both the invoices and the payments to customers' ledger cards. Furthermore, a total of the receipts should be obtained before they are turned over to Janice, and that total and the individual checking amounts should be compared to the amount deposited. As we mentioned, this weakness in internal control necessitates additional auditing steps that result in increased fees.

Solution

A computerized system would benefit your company by resolving the procedural problems described above. Jane alone could handle invoice production because she would no longer have to type out the entries. Janice would be responsible for recording the cash receipts. The computerized system can produce daily past-due reports. Thus, collection efforts can start the very day the invoices become past due. Selling to customers whose accounts are seriously past due need no longer occur. Since Janice has a good telephone manner, she can handle the collection function.

Although you are planning to hire another accounts receivable clerk to eliminate the monthly bottleneck, introducing a computerized accounts receivable system would eliminate the need for this position. Our preliminary cost-benefit analysis shows a direct benefit in the range of $X,XXX per month as a result.

Sincerely,

____

John Doe, CPA

Exhibit 41-7

Vendor Evaluation Checklist

Vendor ______________________________ Date ______________

Evaluator ______________________________

Criteria	*Excellent*	*Good*	*Fair*	*Poor*
Experience				
Knowledge of industry	( )	( )	( )	( )
Number of installations	( )	( )	( )	( )
Financial stability	( )	( )	( )	( )
Business maturity	( )	( )	( )	( )
Accounting background	( )	( )	( )	( )
Software performance	( )	( )	( )	( )
New-product development	( )	( )	( )	( )
Support				
Local representation	( )	( )	( )	( )
References	( )	( )	( )	( )
Installation support	( )	( )	( )	( )
Training support	( )	( )	( )	( )
Update policy	( )	( )	( )	( )
Service contract	( )	( )	( )	( )
Modifications availability	( )	( )	( )	( )
Documentation	( )	( )	( )	( )

Exhibit 41-8

Checklist for Software Documentation and Special Features

Instruction Manual	*Yes*	*No*
1. Layout		
• Appearance is professional.	___	___
• Sections are organized in order of processing steps.	___	___
• Screen images in the manual appear as they will on the computer screen.	___	___
2. Content		
• Installation instructions are clear and understandable.	___	___
• Setup instructions show how to format data, with samples of the suggested formats.	___	___
• The table of contents lists chapter titles and topics.	___	___
• Backup and restore instructions are clear and understandable.	___	___
• The index is sufficiently detailed, including cross-references.	___	___
• An error-message section gives a full description of each error and possible ways to correct it.	___	___
• Instructions for creating and producing reports are clear and understandable.	___	___
• A technical section explains file structure and the file access table (program vs. data files).	___	___
• Audit trails are clear and defined.	___	___
3. Style		
• The writing tone is friendly.	___	___
• Tutorials include on-screen descriptions of what the input fields contain.	___	___

	Yes	No
Other		
1. Support References		
• The application includes a customer registration card.	____	____
• The vendor's support policy clearly indicates the length of time that support and ongoing troubleshooting are available after purchase.	____	____
• A description of the vendor's update policy is included.	____	____
• Newsletters are periodically sent to registered owners.	____	____
2. Special Features		
• Passwords protect and date access to applications and data files.	____	____
• Backup and restore commands are prompted by the applications programs.	____	____
• Multiuser capability is available either through local area network or multiuser systems.	____	____
• Source codes are available from the vendor or from an alternative source, such as a third-party developer, should the vendor go out of business.	____	____
• The program is copy protected.	____	____

Exhibit 41-9

Hardware Requirements Analysis

Checklist for Accounts Receivable File Sizing

Company ______________________ *Date* __________

	Current	*In 2 Years*
1. Number of invoices processed daily	______	______
2. Number of lines per invoice	______	______
a. Multiply line 2 by manufacturer's size factor	______	______
b. Disk space required for daily activity	______	______
3. Average number of open invoices	______	______
4. Average number of lines per invoice	______	______
a. Multiply line 4 by manufacturer's size factor	______	______
b. Disk space required for open invoices	______	______
5. Number of customers	______	______
a. Multiply line 5 by manufacturer's size factor	______	______
b. Disk space required for customer records	______	______
6. Sales history: Daily activity disk requirement (See line 2b, above.)	______	______
a. Multiply line 6 by days of sales history to be maintained	______	______
b. Disk space required	______	______
7. Total space required for data files (Add lines 2b, 4b, 5b, and 6b.)	______	______
8. Disk space required for programs	______	______
9. TOTAL DISK SPACE—ACCOUNTS RECEIVABLE (Add lines 7 and 8.)	______	______

Note: Most accounting systems include detailed sizing instructions that protect file-size-specific packages. This checklist contains some of the most important elements of a receivable application and is included to guide practitioners in constructing their own checklists for a specific engagement.

Exhibit 41-10

Summary Report of Software and Hardware Recommendations

Software Analysis

We have reviewed the various accounting software options available to XYZ Corporation given the company's defined requirements. We have focused on systems that meet more than 90 percent of your stated requirements and that are compatible with a multiuser local area network (LAN) configuration.

Current System

The current accounting service processes general ledger and accounts payable. Using a batch system, it often requires substantial time between data entry and reporting. Continuing support and maintenance of the system is the responsibility of the service center.

XYZ wishes to maintain its multiuser interface and allow simultaneous access by both clerical and management personnel.

Software Selection Methodology

We interviewed XYZ management to determine their needs and likes and to prioritize them. We began with the general ledger and followed the same procedure for accounts payable and general system features. Using the information gathered to evaluate available software, we attended vendor demonstrations, reviewed documentation, researched independent comparative evaluations (*PC Magazine* reports and Datapro looseleaf service), and drew on our experience with similar client situations. We compiled a list of packages that exceed 90 percent of the general ledger requirements, have an integrated accounts payable module, and are compatible with a network environment.

Unique Requirements

XYZ requires the ability to handle remote data entry with review and approval by management before posting transactions. Another unique requirement is to handle both fiscal and tax-year reporting. The fiscal year-end is March 31, while December 31 is used for the tax year. XYZ also needs to download and upload accounting data into spreadsheet packages for analysis. Based on these requirements and our data gathering, we chose to evaluate these packages:

Package	Version	Vendor
A	4.03	Vendor A
B	90	Vendor B
C	4.0	Vendor C
D	4.0	Vendor D
E	4.0	Vendor E

In the following section we recommend the package that best satisfies your needs, including system compatibility.

Conclusion and Recommendation

We recommend package A. It provides the most flexibility in both data control and reporting on an ad hoc basis. Furthermore, the database management application most closely resembles the time-sharing mainframe accounting system XYZ currently uses.

Package A is also the only package that reports prior-year data in combination with current-year figures to create effective tax-year reporting. Additionally, through the interface modules, XYZ can upload and download accounting data directly into electronic spreadsheets.

Package A is compatible with a local area network. Most other packages require a lengthy and complicated data conversion process.

Hardware Analysis

We have defined and documented multiuser hardware configuration options that will allow XYZ to successfully implement a microcomputer-based system for general ledger and accounts payable applications.

Current System

The current time-sharing, mainframe-based system supports three direct users and two others who use system data for other applications. A connected microcomputer system must maintain this level of use and provide for expansion.

Physically the users are spread out. However, twisted-pair wire connects the existing terminals to a central communications center. XYZ would also like to centralize all system printing at this communications center to maintain confidentiality and reduce office noise levels.

Hardware Selection Methodology

We focused on defining and selecting an appropriate hardware option that balances cost, functionality, security, technology, and cabling to optimize XYZ's operating environment. To this end, we reviewed alternatives that feature more than one workstation, permit multiple users access to central data storage and printing, and allow for centralized security and control of accounting data.

Conclusion and Recommendation

CPA & Company and XYZ agreed prior to the engagement that a multiuser, media-sharing local area network is the most appropriate hardware for XYZ. While we realized that a LAN is costly, we believe that any system other than a LAN will cause substantial processing and information delays and unacceptable loss of control over data.

We recommend that you acquire Sample-Q computer hardware, which is compatible with recommended software package A and your computer cabling. If you should select software other than package A, you may find alternative computer equipment appropriate.

Exhibit 41-11

Engagement Letter—Implementation

CPA & Company
Anytown, USA 00000

August 1, 19XX

Mr. Joseph White
XYZ Corporation
100 Main Street
Anytown, USA 00000

Dear Mr. White:

I enjoyed meeting with you to discuss implementing your new microcomputer-based accounting system. This letter outlines the arrangements we made.

Engagement Objectives

The objectives of our engagement are to (1) implement your accounting software and microcomputer hardware, including all peripheral equipment, and (2) train your staff to operate the computerized system effectively.

Engagement Scope

CPA & Company will review your recently acquired microcomputer software and hardware and will complete implementation of the new system, including installation of the software and data conversion. Since our firm did not select or supply the software and hardware, we cannot guarantee that the system can operate without further modification. If modifications are necessary, we will bill you for the additional service at our regular rate.

We will perform all work in accordance with the Statement on Standards for Consulting Services set forth by the American Institute of Certified Public Accountants.

You and your staff will be responsible for various implementation decisions and for the ultimate operation of the system. We will serve in an advisory role until you and your staff have acquired sufficient experience to manage the computer system on your own or until October 1, 19XX, whichever comes first.

Engagement Approach

We will do the following:

1. Meet with your staff to develop a plan for the system changeover.

2. Identify who will be responsible for each step in the plan.

3. Suggest changes in manual procedures to enhance the effectiveness of the system.

4. Assist your staff in determining what supplies and furniture are required.

5. Help your staff design and document the coding systems required for each application.

6. Assist and train your staff in developing controls, such as proper backup and password procedures, daily logs, and problem reports.

7. Install each application.

8. Supervise and train your staff in creating the master files.

9. Verify ending balances as required to determine that the data entered is accurate.

10. Supervise tests of the system to ensure that it is ready for daily operation.

11. Monitor daily operation until October 1 to determine whether additional training, problem resolution, or enhancement is required.

12. Evaluate the actual results produced by the system against your planned objectives.

13. Report our findings and recommendations for further action.

Benefits

When we complete our engagement, your staff will be trained to operate your microcomputer system, which will effectively run all required accounting functions. We anticipate that, as a result, your business operations will be more accurate and cost efficient.

Engagement Scheduling and Staffing

The primary engagement will begin on August 3, 19XX, and we expect to complete it in six days. During this period your staff will be extensively involved, especially you and your comptroller. The greater your staff's participation in this engagement, the easier it will be for them to adapt to the automated system and operate it.

I will supervise the consulting engagement. Tim Black, who has performed similar microcomputer implementations for the last ten years, will be in charge of the fieldwork. CPA & Company will be available for follow-up consultation until October 1, 19XX, at no additional fee.

Project Completion

After we conclude the engagement, we will meet with you to discuss the results of the implementation. At that time we will submit a written report that includes instructions for operating the system. We will also propose additional services, if any are needed.

If at any point during the engagement either party becomes aware of circumstances that would preclude a successful completion, either party may terminate the engagement by notifying the other in writing.

Fees

We estimate our fee for this engagement will be $X,XXX. We have exercised care in preparing this estimate and believe it accurately indicates the scope of the work. We have not included any allowance, however, for factors beyond our control, such as changes in your requirements, variations between estimated and actual processing volumes, time for consultation and assistance with error corrections, and the capability of your staff. Accordingly, this fee estimate does not in any way constitute a fixed-fee quote. We will bill you monthly or at the conclusion of the engagement, at CPA & Company's standard hourly rates, for the time our assigned staff actually spends on the project, plus any expenses incurred on your behalf for supplies, postage, and telephone use.

The fee estimate in this letter is exclusively for implementing the specified software application modules on computer hardware purchased by your company. CPA & Company does not provide any hardware or software nor does this engagement include services other than computer consultation.

Engagement Acceptance

If the terms outlined here are acceptable to you, please sign and date this letter and return one copy to us. If you have any questions, please do not hesitate to contact us.

Sincerely,

____

John Doe, CPA

Approved by ______________________________

President, XYZ Corporation

____

Date

Exhibit 41-12

Work Plan—Implementation

Task	*Estimated Hours*	*Assigned to*	*Performed by**	*Start Date*	*Target Date*	*Completion Date*
Prepare engagement letter. Define responsibilities.						
Determine project schedule.						
Establish coding procedure.						
Develop numbering system for each application.						
Document numbering system.						
Install/arrange hardware in client's office.						
Provide for system security.						
Establish and document a password procedure.						
Establish backup procedures and prepare a written policy.						
Set up monitoring procedures.						
Install software.						
Create master files.						
Establish controls for data input.						
Verify initial balances.						
Arrange/provide training of personnel on operating system and application software.						
Conduct a postinstallation review.						

* Key: C = client; P = practitioner; VS = vendor—software; VH = vendor—hardware.

Exhibit 41-13

Backup Log

Files Backed Up	*Operator*	*Date*	*Time*	*Medium*	*Storage Location*
OSAS/DATA/*.*	RMS	11-21-XX	4:35p	A	DE3
OSAS/PROGRAMS/*.*	RMS	11-26-XX	4:10p	B	DE3
OSAS/DATA/*.*	RMS	11-28-XX	4:35p	C	DE3
OSAS/DATA/*.*	RMS	12-04-XX	4.35p	A	DE3

Exhibit 41-14

Computer Activity Log

	Clearly describe the type of transaction you are entering or the type of report you are printing.			Clearly identify backup copy you make.			Fill out if you restore this backup data.	
	Processing			Backup			Restore	
Operator	Date	Time	Activity Description	Date	Time	Diskette or Tape No.	Date	Reason
SC	11-21-XX	8:10A	Enter cash receipts.					
SC	11-21-XX	8:25A	Post cash receipts.	11-21-88	8:20A	SO-1		
SC	11-21-XX	8:40A	Print AR aging.					
AC	11-21-XX	9:05A	Enter new orders.					
AC	11-21-XX	9:50A	Print open order report.					
AC	11-21-XX	9:55A	Post orders.	11-21-88	9:45A	SO-2		

Exhibit 41-15

System Problem Report

(Read Instructions before filling out this form.)

Site ______________________________

Initial Problem Assessment

Suspected Cause

- ☐ A. Equipment
- ☐ B. Software
- ☐ C. Procedures
- ☐ D. Data
- ☐ E. Operator
- ☐ F. Environment

Notes ______________________________

____

____

____

Label Titles of Data Storage Media in Use

Disk A ______________________________

Disk B ______________________________

Other ______________________________

Tape ______________________________

____

____

Problem occurred: Date ______ Time ______

System down? Yes No ________ (Minutes)

Device down? Yes No ________ (Minutes)

Lost time ________ Recovery time ________

Problem Information

CRT information ______________________________

____

____

____

Description of problem ______________________________

____

____

____

____

____

Originator's signature ______________________________ Date ______________

(continued)

System Problem Report (*continued*)

Company	Response Requested: Time Called	Spoke to	Call Returned	Support on Site	Response: Immediate/Deferred: Repair Complete	Hours Billed	Invoice No. for Billed Service

Problem Resolution

Actual Problem Code (circle one)

Problem referred to ______________________ Date ______________________ A B C D E F G

Action: ☐ No action required

☐ Action taken ______________________

Description of action ____

____

____

____

Signed ____ Date ________________

(Instructions follow.)

Instructions for System Problem Report

Important: Complete the System Problem Report and attach any supporting evidence, such as generated reports or a hard copy of appropriate screens. Complete all sections of the report through the originator's signature section, and have the person responsible for correcting the problem complete the problem resolution section.

Initial Problem Assessment

Suspected Cause

Place an X in the box to the left of the suspected cause of the problem. Mark only one box. Provide additional information, as appropriate, in the notes section.

A. Equipment	If you think there is an equipment problem, indicate which device.
B. Software	In the case of program failure, enter the name or number of the program.
C. Procedures	If you believe there is a mistake in the procedures or operating instructions, identify the procedures.
D. Data	No additional information is necessary.
E. Operator	Identify the system operator.
F. Environment	If you think the problem is due to loss of power, static electricity, humidity or something else, indicate it.

Label Titles of Data Storage Media in Use

Record information from the labels of all data storage media (disks, tapes, cassettes, cartridges, and so on) in use when the problem occurred.

Problem Information

Note the date and exact time of failure. If the entire system goes down (it won't work at all) or only a single device goes down, circle *Yes* at the appropriate line and enter the number of minutes it has been down.

Lost time is the interval from the time processing failed to the time processing successfully resumed. Enter the amount of lost time.

Recovery time involves all efforts necessary to reconstruct files, replace hardware, and so on, so that processing can resume. If there was recovery time, enter the number of minutes it took to recover the data.

Enter under *CRT information* any error messages displayed on the screen.

Under *description of problem*, write a clear and accurate description of the activities preceding the failure as well as a complete description of the error. In addition, record any recovery measures you attempted.

Response Requested

Maintain a log of all phone calls you place for support service or equipment service pertaining to the problem. If the problem requires immediate attention, circle *Immediate*. Circle *Deferred* if you placed the call now, but you will get an answer at a later date.

Record the date and time that support arrives on site, as well as the date and time the repair is completed. If you receive an invoice for the service, fill in the actual number of hours billed and the invoice number.

Originator's Signature

After filling in the above information, sign and date the report in the space provided. Retain the report for future reference. Follow the instructions below and then file the report and invoice with the appropriate individual or division.

Problem Resolution

Enter the name of the person who will investigate and correct the problem, and record the date of referral.

Have the person who resolves the problem circle the actual cause, which may or may not be the same as the suspected cause noted at the top of the form. Place an X in the box to the left of the appropriate action category:

- An X in *No action required* indicates that it is not necessary for anyone other than the originator to fix the problem.
- An X in *Action taken* indicates that the problem was corrected. Enter the date of completion and a description of the action.

Have the person responsible for correcting the problem sign and date the report after completing the corrective action.

Exhibit 41-16

Daily Processing Checklist

Operator ______________________

Action	*Application*	*Complete*	*Initials*	*Entry Date*	*Cutoff Date*	*Procedure Name on Menu*
Input procedures by batch.						
1. Run tape of invoices.	AR	______	____	____	____	
2. Input transactions. (*Note*: Print open invoice worksheet for *open item customers* before inputting their cash receipts.)	AR	______	____	____	____	
3. Print transactions edit list.	AR	______	____	____	____	Sales and Cr/Dr memo
4. Make corrections.	AR	______	____	____	____	processing or cash
5. Print corrected transaction edit list.	AR	______	____	____	____	receipts processing
6. Post transactions.	AR	______	____	____	____	

Input Record

Type of transaction ______________________

Invoice Nos.: Beginning No. ____________ Ending No. ____________

Batch total ______________________

BIBLIOGRAPHY

Books

Gildersleeve, T.R. *Data Processing Project Management.* 2d ed. New York: Van Nostrand Reinhold, 1985.

Lucas, H.C., Jr. *Information Systems Concepts for Management.* 2d ed. New York: McGraw-Hill, 1982.

______________. *The Analysis, Design, and Implementation of Information Systems.* 3d ed. New York: McGraw-Hill, 1985.

Lustman, F. *Managing Computer Projects.* Reston, Va.: Reston Publishing Company, 1985

Martin, James, and C.L. McClure. *Software Maintenance: The Problem and Its Solutions.* Englewood Cliffs, N.J.: Prentice-Hall, 1983.

Nash, J.F., and M.B. Roberts. *Accounting Information Systems.* New York: Macmillan, 1984.

National Society of Public Accountants. *Portfolio of Accounting Systems for Small and Medium-Sized Businesses.* Rev ed. New York: Prentice-Hall, 1986.

Nygren, W.V. *Business Forms Management.* New York: AMACOM, 1980.

Perry, W.E. *Management Strategies for Computer Security.* Boston: Butterworth Publishers 1985.

Powers, M.D. Adams, and H.D. Mills. *Computer Information System Development: Analysis and Design.* Cincinnati: South-Western Publishing, 1984.

Weinberg, G.M. *Rethinking Systems Analysis and Design.* Boston: Little, Brown, 1982.

Wu, F.H. *Accounting Information Systems Concepts for Management.* 2d ed. New York: McGraw Hill, 1983.

Magazines

Access, the Journal of Microcomputer Applications in Engineering and Science
Ledz Publishing Co.
Box 12847
Research Triangle Park, N.C. 27709

Business Computer Systems
Cahners Publishing Co., Inc.
249 W. 17th Street
New York, N.Y. 10016

Business Software
M&T Publications, Inc.
2464 Embarcadero Way
Palo Alto, Calif. 94303

BYTE
McGraw-Hill Information Services Co.
One Phoenix Mill
Peterborough, N.H. 03458

Computers in Accounting
Warren, Gorham & Lamont, Inc.
210 South Street
Boston, Mass. 02111

Computer Industry Update
Industry Market Reports
Box 4537
Mountain View, Calif. 94040

Computer World
C.W. Communications
Box 880
375 Cochituate Road
Framingham, Mass. 01701

CPA Micro Report
CPA Services, Inc.
16800 West Greenfield Avenue
Brookfield, Wis. 53005

Infoworld
Infoworld Publishing Inc.
1060 Marsh Road
Suite C-200
Menlo Park, Calif. 94025

PC Magazine
Ziff-Davis Publishing Co.
One Park Avenue
New York, N.Y. 10016

PC Products
Cahners Publishing Co., Inc.
249 W. 17th Street
New York, N.Y. 10016

PC Tech Journal
Ziff-Davis Publishing Co.
One Park Avenue
New York, N.Y. 10016

PC World
PC World Communications
555 DeHaro Street
San Francisco, Calif. 94107

Personal Computing
Hayden Publishing Co., Inc.
50 Essex Street
Rochelle Park, N.J. 07662

Small Systems World
950 Lee Street
Des Plaines, Ill. 60016

Software Digest
One Wynnewood Road
Wynnewood, Penn. 19096

Software News
Sentry Publishing Company, Inc.
1900 West Park Drive
Westborough Office Park
Westborough, Mass. 01581

42/100 DISASTER RECOVERY PLANNING

CONTENTS

42/100 DISASTER RECOVERY PLANNING

42/105 INTRODUCTION

.01 Disaster struck the U.S. Postal Service one October evening in 1984 when a fire broke out in the ninth floor data center of its Washington, D.C. headquarters. The fire damaged more than 1,500 microcomputers, terminals, and peripherals and caused over $20 million in damages. In addition to the loss of equipment and facilities, which could be replaced, the U.S. Postal Service law department lost six years of files and active case records, which could not be replaced. There was no disaster recovery plan.

.02 Almost two years later to the day, fire completely destroyed the Montreal headquarters of Steinberg, Inc., a $4.5 billion retailer generating millions of transactions every day. Less than forty-eight hours after the fire, Steinberg's computer operations were transferred to a leased facility in New Jersey and became operational, with full communications restored to all the organization's branches. The following day, the payroll for Steinberg's 28,000 employees was processed without any significant problems.

.03 The difference in the outcome of these two disasters can be attributed to a detailed disaster recovery plan, which Steinberg, Inc. had prepared.

42/110 SCOPE OF THIS PRACTICE AID

.01 In the Information Age, an increasingly large number of organizations have replaced manual systems with computer-based automated systems. Many such organizations operate as if a disaster will never happen to them or as if they can deal with it without a plan. Others mistakenly believe that they are protected because they periodically back up their systems. Unfortunately, companies have discovered that unplanned interruptions of their data processing facilities can have catastrophic effects on their ability to continue in operation. When disasters occur it is difficult, if not impossible, to recover these systems in a timely fashion.

.02 Disaster recovery planning is becoming increasingly important today as companies become more dependent on their computer systems. This section provides practitioners with a guide to preparing and evaluating a disaster recovery plan for both microcomputer and minicomputer systems. It discusses two specific application areas: (*a*) developing and implementing procedures to prevent a disaster or lessen its impact and (*b*) developing detailed procedures to follow if a disaster occurs. The details of the plan's procedures will vary according to the type and size of the organization.

.03 This practice aid helps practitioners identify computer operations necessary to the organization's functioning and the steps to take to prevent disasters from crippling the business. This practice aid does not purport to cover all contingencies but focuses on some of the more important aspects of maintaining the integrity of files.

42/115 THE IMPORTANCE OF DISASTER RECOVERY PLANNING

.01 The significance of a problem depends on its consequences. A short-term power loss may be immaterial to a company's operations. However, the company needs to learn how to prevent such occurrences from turning into disasters and to cope with severe disasters in the future.

.02 Very few organizations can function with a prolonged interruption of data and computer-processing capabilities. The financial costs associated with such a disruption could threaten the very existence of the organization. A disaster recovery plan may save thousands of dollars in losses from destruction of information or delay in its flow. It may not always prevent a disaster, but it can help keep an organization intact and operating. The goal of a disaster plan is to ensure business continuation.

.03 In some regulated industries, disaster recovery planning is important enough to be required. For example, the Office of the Comptroller of the Currency requires all national banks to have disaster recovery plans and to test them periodically.

.04 Disasters vary in magnitude and may involve more than just a loss of data or computer operations. Although the list of events that create disasters is endless, disasters all have one or more of the following elements of loss:

a. Loss of information, such as corrupted or deleted files resulting from unauthorized access and lost or destroyed tapes or disks

b. Loss of hardware, including stolen machines, failed hard disks, and worn out hardware

c. Loss of key employees

d. Long- and short-term losses of computer processing capabilities due to power outages, acts of God, and so forth

42/120 PREPARING A DISASTER RECOVERY PLAN

.01 A disaster recovery plan documents the procedures to follow when unexpected and undesirable events interrupt an organization's data processing capability. The procedures make up a system to minimize damage from events such as fires, bomb threats, armed robberies, power failures, and hardware and telecommunications failures. A disaster recovery plan describes the steps necessary to recover data, applications programs, and processing capability.

.02 A disaster recovery plan also identifies—

a. The steps to take immediately after a disaster strikes.

b. The systems and applications to restore first.

c. The location of the recovery site.

d. The back-up procedures and other actions that may help prevent a disaster or lessen its impact.

e. Key employees and their responsibilities.

.03 The sections that follow discuss the major steps of a disaster recovery plan. Each step is crucial to the successful completion of the plan. If unable to complete each step properly, the practitioner needs to reevaluate whether the plan meets the client's objectives. Exhibit 42-1 in appendix 42 is a sample engagement letter describing the typical approach in a disaster recovery planning engagement.

.04 Although disaster recovery plans vary based on the organizations for which they are designed, all plans need to be easy to read and use. Some are best presented with charts, decision matrices, and tables. Appendix 42 provides a sample disaster recovery plan applicable to some, but not all, disasters.

.05 For those companies with a single location that have a single-user PC or a small network, the disaster plan could be as simple as documentation of equipment, suppliers, and back-up procedures. As long as proper backups are occurring, the result of a disaster may be easily repaired through the simple replacement of a PC or network server.

Secure Top Management Support

.06 Because preparing a disaster recovery plan requires a commitment of time, personnel, and financial resources, executive management support is critical. To gain this support, the practitioner can educate management about the effects of an unplanned interruption of data processing services, such as an inability to process payrolls and customer billing and maintain inventory control. Associated financial controls also need to be considered. A cost-benefit analysis would further strengthen management's support for the development of a disaster recovery plan.

.07 The practitioner can recommend disaster recovery planning as a kind of insurance. Disasters often occur without warning, and therefore planning is important. The cost of disaster planning, like the cost of commercial insurance coverage, is usually minimal compared to the consequences of being unprepared. The ultimate consequence could be the end of the business.

Establish Objectives

.08 Once executive management has made a commitment to disaster recovery planning, the practitioner establishes plan objectives that are realistic, achievable, and economically feasible.

.09 Examples of such objectives include the following:

- Develop daily, weekly, or monthly procedures for data backup and security over computer operations.
- Establish procedures and priorities for restoration. Restore critical data processing operations as quickly as possible.
- Minimize losses and costs associated with the disaster and subsequent recovery.
- Maintain an acceptable level of customer service.
- Maintain the organization's competitive position.
- Establish controls to maintain security over system procedure manuals and related technical publications.

.10 Although such objectives provide direction in preparing the disaster recovery plan, during the engagement the practitioner continually reevaluates whether they are realistic and achievable.

Conduct an Operational Impact Analysis

.11 One phase of disaster recovery planning that is very important to the engagement's success is analyzing a disaster's impact on operations. During this phase, the practitioner identifies the systems and applications that are critical to continuing business. The key to analyzing these is understanding the organization, its operational priorities, and the personnel and locations involved.

.12 The practitioner needs to define which of the primary business functions of the organization are supported by computer operations. This defining includes the use of flow charts and descriptions of the departmental operations, as well as identification of the key employees involved and referral to timetables for due dates, secondary suppliers, and so forth. The practitioner ranks the employee functions according to their impact on the organization's day-to-day operations. Using an analysis of the operations, the practitioner (*a*) determines what procedures need to be performed daily, weekly, or monthly and in what order and (*b*) identifies those areas requiring immediate attention.

.13 In defining the primary business functions, the practitioner develops the flowcharts and descriptions of the departmental operations in a way that enables management to visualize the economic impact (costs and benefits) on the business processes of changes in the volume and frequency of computer transaction processing. To persuade management to take the appropriate actions, the practitioner compares the costs involved in preparing and maintaining a disaster recovery plan with the potential operating losses if no contingency planning is done.

.14 Some of the costs of contingency planning are associated with the following tasks:

a. Organizing and managing the project

b. Documenting the major computer services provided

c. Documenting interruptions and general procedures

d. Developing procedures for major disasters

e. Developing procedures for testing and updating

f. Testing the disaster recovery plan

Exhibit 42-2 provides further detail about these tasks.

.15 The practitioner identifies all data processing systems and subsystems, including hardware systems (with any on-site back-up systems), software programs and files, and the vendors capable of quickly supplying new hardware and software. The practitioner determines each system and subsystem's impact on business operations and learns how the systems and subsystems interrelate, as well as the consequences of their being out of operation. For example, can the order processing department function without receiving and inventory operations? Can the company fill and ship customer orders if inventory data are not updated for new receipts? Exhibit 42-3 provides a list that will guide the practitioner in obtaining the information needed to assess the effect a disaster would have on operations.

.16 When reviewing the information system's vulnerability to disaster, the practitioner considers how essential each element is to continuing the client's primary business functions. The elements to consider include the following:

- All business functions
- Telephone and mail communications
- Vital records
- Personal computers
- Data processing computers
- Data processing applications
- Distributed computers
- Central computers

Analyze Risk

.17 Risk analysis involves determining the potential risks and evaluating existing security controls. The risks to data operations are like any other risks to an organization and include external as well as internal threats. Security controls include logistical, physical, personnel, communications, and operational considerations.

.18 Security controls consist of both the physical security of the operations, such as building access and security systems, and computer access security, such as password protection. The practitioner evaluates the need for security controls by considering the client's security history, the physical location of operations, and employee screening methods.

.19 Strong security, which minimizes access to the building and to computer operations, is a key consideration in minimizing risk. If operations are not secure, disasters are more likely to occur.

.20 External threats are the events and people over which the organization has little control. Natural disasters, such as acts of God, and accidents due to human error can destroy facilities, equipment, and data, thereby interrupting operations. The destruction may be intentional, resulting from arson and the acts of political revolutionaries or terrorists. Computer viruses pose an especially serious threat.

.21 Internal threats include accidental and deliberate acts by individuals within the organization. These threats include employee sabotage, unauthorized access, computer viruses, and errors and omissions.

.22 One of the best methods for analyzing risk is brainstorming with management to identify the threats and their potential effects on operations. The practitioner documents the risks to cover in the disaster recovery plan. Brainstorming is best conducted in a closed but informal meeting with management. Participants discuss past experiences and raise questions about what they see as potential risks. The practitioner poses open-ended what-if questions. The discussions need to center on the potential impact of loss of processing capability, regardless of the cause. At the conclusion of the meeting, the practitioner reviews the risks identified and documents those to cover in the disaster plan.

Develop the Plan

.23 The practitioner bases the disaster recovery plan on the objectives and on the potential risks to and impact on operations. The plan includes definitions of the levels of the disaster. A level I disaster, for example, may mean full destruction of company headquarters. A level II disaster may mean complete loss of primary computer operations.

.24 The plan documents the procedures to perform and includes the following information:

- Level of response to different types of disasters
- Facility, equipment, software, and communication needs and their sources
- Responsible personnel
- Data and storage requirements
- Internal and external support requirements

- The process of moving personnel and data to a recovery site

- The order of systems restoration, including time estimates to restore

Exhibit 42-4 in appendix 42 provides a list of sample procedures.

.25 In developing and documenting the procedures, the practitioner may find it helpful to consider the flow of activity during the implementation of the plan once a disaster interrupts normal operations. In general, the procedures fall into three categories:

a. *Emergency procedures.* These procedures are the first to be followed. Their purpose is to minimize further loss of personnel, data, and equipment. Usually these procedures detail how to determine the disaster level and whom to notify, such as key personnel, fire and police departments, and vendors. Exhibit 42-4.1 provides a sample form that is used in determining a disaster level.

b. *Back-up procedures.* These procedures are designed to enable the organization to regain critical business functions, if only temporarily. For example, personnel and data may move to a "hot site" or the critical business functions may be performed manually on a temporary basis.

c. *Recovery procedures.* The process of returning to normal operations requires procedures designed to restore automation of the critical business functions.

.26 The figure on the following page is a diagram showing the flow of these procedures. Included in this cycle are procedures for testing and updating the activities.

.27 The written plan, including personnel assignments, is distributed to key staff members along with home phone numbers for all personnel. Other critical phone numbers to include are those for off-site storage and back-up site management. The plan also gives information and phone numbers for contacts at insurance companies, police and fire departments, state regulators and other agencies (such as the Federal Savings and Loan Insurance Corporation [FSLIC] and the Federal Deposit Insurance Corporation [FDIC]), and business form, hardware, and software vendors. Exhibit 42-4.2 provides an example of this key plan information.

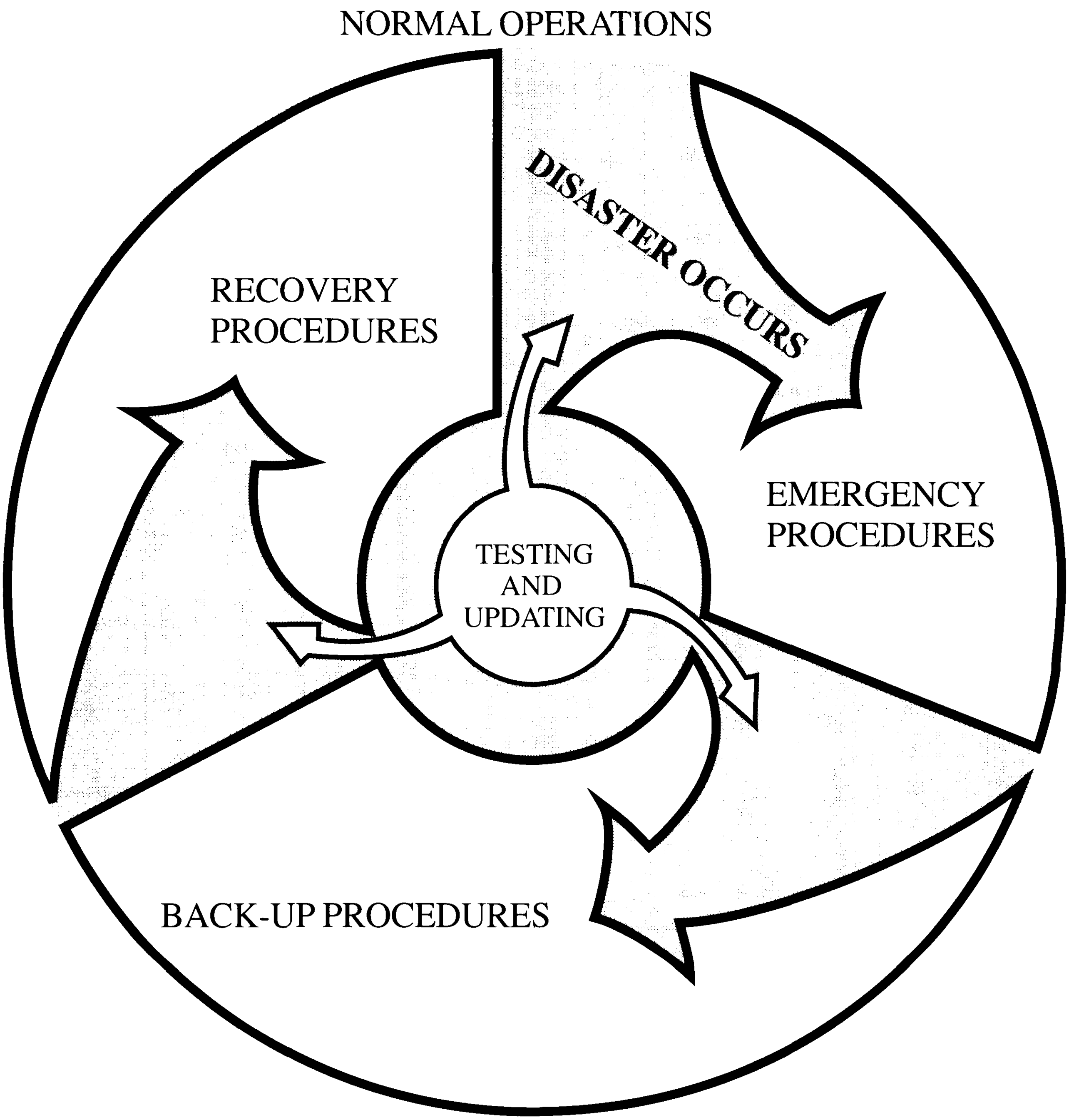
.28 The plan contains an inventory of current hardware and software (including the version in use) and other necessary equipment. It also lists the reporting requirements and data files and their format. The practitioner advises the client to update the plan as new hardware and software are acquired and operations are modified or relocated. A copy of the plan is stored securely at an off-site location.

Assign Responsibilities

.29 All key employees need to be familiar with the plan, its operation, and the goals of implementation. They need instruction in what to do in an emergency and are assigned as many specific tasks as possible with procedures for follow-up to ensure timely completion. Each

Figure 42-1

Disaster Recovery Plan Flow



supervisor gives employees a copy of the emergency procedures and reviews them semiannually with employees. The supervisor also reviews any changes in responsibilities resulting from promotions and hardware and software acquisitions. New employees receive a copy of the emergency procedures, and during their probation the supervisor reviews them in detail with the employees.

Test the Plan

.30 The plan requires regular or periodic testing. At a minimum, the tests include assessing the ability to recover key operations and files from backup. The disaster plan will be ineffective if management and employees feel that it may not work.

.31 Testing will most likely be performed during off hours. The tests simulate the various disasters, just as fire drills do, and then implement the disaster plan to determine the effectiveness of the prescribed procedures. Testing includes a review of off-site back-up facilities to determine that all equipment is compatible and that transactions can be processed to maintain operations.

.32 Testing also establishes estimates of recovery times, including the time spent restoring operations from the back-up systems and the time it takes to achieve full recovery. The plan should be revised immediately when there is any turnover of personnel or suppliers included in the plan. Regular testing of the plan will disclose turnover in client personnel and outside vendors.

Evaluate the Plan

.33 While developing and testing the plan, the practitioner thoroughly evaluates it to determine that it meets its objectives in an orderly and cost-effective fashion. If the client cannot effectively carry out the plan at a reasonable cost, the practitioner needs to consider alternatives before making the plan final. During development of the plan, the practitioner needs to address this issue continually.

42/125 OTHER CONSIDERATIONS

.01 During an engagement to develop a disaster recovery plan, the practitioner may also find opportunities to strengthen an organization's security plan, risk management, and insurance coverage, as well as to identify areas where efficiency could be improved. The practitioner may also consider discussing the engagement objectives with the organization's hardware and software vendors because some may offer disaster recovery capabilities.

APPENDIX 42

ILLUSTRATIVE MATERIALS

Exhibit 42-1

Sample Engagement Letter

[*CPA Firm's Letterhead*]

July 7, 19XX

Client's Name
Firm Name
Address
City, State 10111

Dear________________

I appreciated the opportunity to meet with you about developing a disaster recovery plan. This letter outlines our understanding of how we will assist you in establishing the plan.

Engagement Scope

The scope of the engagement will include an analysis of your firm's data processing operating procedures crucial to the continuance of your operations and an evaluation of your back-up sites, vendor support, and deployment of key employees in the event of a disruption of services. The engagement will last approximately thirty working days and will begin on August 3, 19XX.

Engagement Approach

Our overall approach is to provide a step-by-step disaster recovery plan that will meet the engagement objectives. To accomplish this, we will review your current operations and accounting system and procedures and interview appropriate members of your staff. We will conduct the required work as follows:

1. Document current operations, locations of facilities, hardware and software in use, and key employees in each operation of the company.

2. Evaluate past and potential disasters and assign levels to each type of disaster

3. Evaluate the costs and benefits of implementing various actions depending on the defined level of disaster.

4. Establish the disaster recovery plan and document the procedures to follow.

5. Test and evaluate the disaster recovery plan and alternatives.

To complete this work, we expect your company to provide access to all facilities, have professional and administrative staff available for interviews, meetings, and questionnaires, and cooperate with our staff in developing solutions.

Client Benefit

The disaster recovery plan will provide detailed operating procedures to follow when a disaster occurs. The documentation will include the names of responsible employees, back-up site locations, and key contacts and plan administration procedures for continued updating. This plan will enable your company to effectively evaluate and recover from disasters.

Engagement Staffing and Scheduling

During the engagement, your staff, especially you and your administrator, will be involved as much as possible. The greater your staff's participation, the easier it will be for them to adapt and implement the disaster recovery plan.

I will supervise the consulting engagement. Harold Baines, who has performed similar evaluations over the last ten years, will be in charge of the field work.

Project Completion

We will conclude the engagement by presenting you with the results of our procedures and a proposed disaster recovery plan.

If, during the engagement, either of us learns of circumstances that may prevent a successful conclusion, one of us may terminate the engagement by notifying the other in writing. At the conclusion of the engagement, we may suggest a second engagement to provide implementation guidelines. We can discuss our respective roles in this phase when we deliver our final report. If desired, we will submit our proposal to provide additional services at that time.

Fees, Billing Arrangements, Payment

We will base our fees for this engagement on the time spent at our standard hourly rates. The estimated cost of the project is $XX,XXX. A retainer of $X,XXX is due on your acceptance. We will bill the remainder of the fee at the conclusion of the engagement. We will also bill you for any out-of-pocket costs, such as transportation or materials, in addition to our fees.

Engagement Acceptance

Please acknowledge your acceptance of these terms by signing this letter and returning one copy to us with a check for $X,XXX. Thank you for retaining us. We hope this will be the beginning of a long and mutually beneficial relationship.

Sincerely,

____

John Doe, CPA

Approved by __________________________

President

Date ________________________________

Exhibit 42-2

Disaster Recovery Planning Project
Summary Workplans

	Description		*Estimated Man-Days*[*]
1.	Organize and manage the project.		
	Organize the project team.		0.2
	Define objectives and general approach.		0.5
	Finalize deliverables of the project.		0.1
	Finalize outline for the disaster recovery plan document.		0.2
	Finalize the project plan and schedule.		0.5
	Manage and administer the project.		2.5
		Total	4.0
2.	Document major computer services provided.		
	Identify major applications and key users.		0.2
	Interview key users and data processing staff.		2.5
	Document services, users, and considerations.		2.0
	Review write-ups with key users and data processing staff.		2.0
	Finalize major services documentation.		1.3
		Total	8.0
3.	Document interruptions and general procedures.		
	Identify potential service interruptions.		0.4
	Interview key data processing or other department staff		2.5
	Prepare procedures for each interruption.		2.0
	Review procedures with key staff and management.		2.0
	Finalize interruption procedures.		1.1
		Total	8.0

---

[*] Estimated man-days are for illustrative purposes only and do not refer to a specific company size.

4. Develop procedures for major disasters.

Define emergency teams and responsibilities.		3.0
Identify procedures to be developed.		1.0
Develop the disaster recovery procedures.		12.0
Review the procedures with key management.		3.0
Finalize the recovery procedures.		1.0
	Total	20.0

5. Develop procedures for testing and updating.

Develop procedures for testing the plan.		2.0
Develop procedures for maintaining the plan.		2.0
	Total	4.0

6. Test the disaster recovery plan.

Arrange for the test with contingency site.		0.1
Design any specific application test.		0.9
Conduct the test of local procedures and computer tests at contingency site.		6.0
Evaluate the test and determine any needed changes in the plan.		1.0
Update the plan as necessary.		2.0
	Total	10.0

Exhibit 42-3

Disaster Recovery Planning Operational Impact Analysis

[The practitioner uses this impact analysis to review and document the client's operations. This form is filed with permanent workpapers and updated at least annually]

General Company Operations

Client__________ Client No.__________ Prepared by__________
Date__________ Reviewed by__________ Date__________

Form of entity:
Regular corporation__________ S corporation__________ Partnership__________
Sole proprietorship__________ Other (describe)__________

Nature of business:
Retail__________ Wholesale__________ Manufacturing__________ Service__________
Other (describe)__________ Types of products or services__________

Operating environment:
Who sets company objectives and makes major operating decisions?__________

____

Client's philosophy: conservative__________ or risk-taking__________
Operations: centralized__________ or decentralized__________

Has the client
Acquired new businesses? Yes__________ No__________
Divested itself of subsidiaries? Yes__________ No__________
Made other changes (describe)?__________

What are the important assets, liabilities, revenue, and expenses (if any)?__________

____

____

____

Where are plants, stores, warehouses, showrooms, etc.?__________

____

____

____

Production method (describe):__________

____

____

____

Produce upon receipt of order__________ Produce for stock?__________
Principal raw materials?__________

Is process
Labor-intensive?______ Union or non-union?______ Capital-intensive?__________

Where does the client buy raw materials?
Manufacturer____ Distributor____ Importer or exporter____ Other (describe)__________

How is product or service distributed or sold?
Employee salespeople_____ Independent agents_____ Mail order__________
Store______ Catalog______ Other (describe)__________

Unusual payment arrangements for purchases:
Special invoice dating__________ Consignment__________
Other (describe)__________

Unusual customer arrangements (describe):
Consignments__________ Special return privileges__________

Special payment arrangements
Other__________

How does the client keep accounting records?
Handwritten______ Bookkeeping machine______ Service bureau__________
In-house mainframe__________ Microcomputer__________
Other (describe)__________

In what areas does the client use computer programs?

____
____
____
____

What software programs are in use?

Program	*Employees Using*	*Locations of Use*

Basis of accounting used for accounting records:
Accrual______ Cash______ Income tax______
Other (describe)__________

Basis of accounting used for tax purposes:
Accrual____________________ Cash____________________
Other (describe)____________________

Computer hardware in use by location and suppliers

Equipment	*Location*	*Supplier*

Ledgers and journals used (indicate **C** if prepared by computer; **M** if prepared manually):
General ledger__________ Sales journal__________ Purchase journal__________
Cash receipts journal__________ Check register__________
Perpetual inventory records__________ Accounts receivable subsidiary__________
Accounts payable subsidiary__________ Other (describe)__________

Accounting records prepared by client's personnel
Through trial balance__________ Through financial statements__________

What are the stated qualifications of bookkeeping and accounting personnel?

Name	*Position*	*Above Average*	*Average*	*Below Average*

Compensation method (indicate whether salaried, hourly, or commission; whether bonus, profit sharing, or similar arrangements):
Management____________________
Office and administrative____________________
Salespeople____________________
Plant____________________
Other (describe)____________________

Payroll prepared:
In-house__________ By outside service bureau__________

Names and relationships of related parties:
____
____
____
____

Types of material transactions with related parties:

____
____
____
____

Other important information about client:

____
____
____
____

Computer Operations *Program*	*Number of Users*	*Key Employees*

Daily computer operations (include back-up procedures):

________	________	________
________	________	________
________	________	________
________	________	________

Weekly computer operations:

________	________	________
________	________	________
________	________	________
________	________	________

Key computer processing and information systems and priority of operation:

System	*Priority (Rank 1-10)*	*Impact if Operations Ceased*
________	________	________
________	________	________
________	________	________
________	________	________
________	________	________
________	________	________

Sketch a flow chart of computer operations and interdependent functions in each department (use additional sheets if necessary).

Exhibit 42-4

XYZ Corporation Disaster Recovery Plan*

Company Description, Physical Facilities, and Locations

XYZ Corporation is a wholesale distributor of commercial and industrial insulation. Its primary customers are independent contractors and large utilities. It has approximately one hundred employees.

The company maintains corporate headquarters in Lenexa, Kansas, where twenty-five employees work. The company also leases warehouses in Lenexa; Omaha, Nebraska; and Phoenix, Arizona. Approximately twenty-five employees work at each warehouse location.

Computer operations, in the form of a microcomputer network, are at company headquarters. Each warehouse facility is linked directly to headquarters via modems using dedicated telephone lines.

Responsible Employees

William Johnson, vice president, data processing, will maintain and implement this disaster recovery plan. In his absence, Michael Barnett, supervisor, will be responsible. When a disaster occurs, the disaster recovery plan administrator assigns it to one of the levels defined in this plan.

Disaster Avoidance Procedures (Internal)

1. Daily procedures: Frank Brett will perform backups of the dedicated file server twice daily at 11:30 A.M. and 5:30 P.M. Mr. Brett will take the 5:30 back-up tape off-site and will store the 11:30 tape in the company's fireproof safe on-site.

2. Weekly procedures: Each Friday, Frank Brett will send the 5:30 back-up tapes to the ABC off-site storage facility. Mr. Brett will also review all operating programs and files to determine if there are any unauthorized applications that may contain a program virus. Any unauthorized applications will be deleted.

3. Monthly procedures: Mr. Brett will test the monthly back-up tapes to ensure their reliability and the ability to restore data from the tapes. He will compare system files to the active dedicated file server and investigate any differences immediately.

4. Other: Employees are responsible for performing daily backups of their hard disks (if applicable). These may be stored in the company's fireproof safe.

---

* This is an abbreviated plan and its procedures are not intended to cover all possible types of disasters.

Disaster Level Defined

Once the disaster level is assigned, refer to the specific procedures to complete for each level. Please contact the individuals below immediately when a disaster has occurred or may occur.

Disaster Plan Administrator:	William Johnson	
	Work:	(913) 278-1000
	Home:	(913) 642-8873
	Beeper:	(913) 591-6401
Backup 1:	Michael Barnett	
	Work:	(913) 278-1002
	Home:	(913) 642-8874
Backup 2:	Robert Smith	
	Work:	(913) 278-1003
	Home:	(913) 642-8875

Disaster Level Definitions

The following disaster levels are listed in order of priority from highest to lowest:

I. All computer operations are lost through destruction of the computers or facility, long-term power outage (more than five days), or evacuation of the building because of an external threat.

II. The network server fails at one or more locations or departments, or the hard disk fails or programs and files on the disk cannot be accessed.

III. Telephone connections to remote locations are interrupted or modem operations are in disarray because of faulty or broken equipment.

IV. Files within any application are corrupted.

Disaster Recovery Procedures

I. Level 1 Disaster

A. Key employees: Plan administrator — William Johnson
Computer operations — Frank Brett
Facility Management — Thomas Wilson
Warehouse operations — Fred Carlton

B. Procedures

1. Plan administrator

- Contact president and above employees to inform them of the disaster.

- Complete the disaster level assignment matrix (see exhibit 42-4.1); assign priorities to each department, and determine if site evacuation is required.

- Follow up and check off completion of assignments.

2. Computer operations

   - Contact suppliers to arrange new hardware if needed or back-up computer facilities if disaster has impaired any operations at headquarters (see key plan information in exhibit 42-4.2) and arrange for resumption of operations.

   - Contact the back-up-tape storage facility and arrange for pickup of tapes.

   - Install computer systems on back-up hardware in the order prescribed by the administrator (refer to the priority ranking in the disaster-level assignment matrix).

   - Determine if modem connections to all outside locations are complete.

   - Notify the department as its applications become available on the back-up computer.

3. Facility management

   - Determine the extent of damage to the facility.

   - Contact contractors for repair or the back-up location if operations cannot continue at the facility.

4. Warehouse operations

   - Implement manual operations for tracking shipments and receipts until computer operations resume.

   - Contact outside warehouse to implement manual operations.

   - Monitor manual paper flow to data processing.

C. Hardware and software in use [brand names are fictitious]

1. Equipment inventory

   a. Primary site

Dedicated file server:	PC — BKB 1000 2MB RAM
	170 — MB hard disk
Printers:	2 laser printers
	3 lKZA dot-matrix high-speed
Workstations:	8 PCs — BKB 500 1-MB RAM
	40-MB hard disks each

Modem:	4800 baud

b. Remote locations (same inventory at each)

Workstations:	5 PCs — BKB 500 1-MB RAM 40-MB hard disks
Printers:	3 lKZA dot-matrix high-speed
Modems:	5 4800 baud

c. Recovery site

File server:	PC — BKB 2000 4-MB RAM 340-MB hard disk
Printer:	1 lKZA dot-matrix high-speed
Workstations:	4 PCs — BKB 500 1-MB RAM 40-MB hard disks
Modems:	3 4800 baud

2. Software-primary and remote sites

   a. ABC Accounting Package
   General ledger, version 1.12
   Accounts receivable, version 1.12
   Accounts payable, version 1.10
   Purchase order, version 1.10
   Sales order version 1.10
   Inventory, version 1.11

   b. Spreadsheets
   Network version CDF Calc, release 3.04

   c. Data bases
   Network version BigBase, release 2.07

   d. Key personnel

      1. Recovery team

         a) William Johnson — supervisor 278-1000
         b) Michael Barnett — backup 278-1002
         c) Steve Morris — operator 229-3675

      2. Recovery site (ABC Computer Corporation)

         a) Roger Peters — system support 491-6363
         b) Dennis Wilson — data systems 491-6324
         c) Joseph Bennett — account rep 491-6368

      3. Company officer team

         a) Jim Smith — assistant VP 228-5980

b) Jessica Graves — controller 228-6070

II. Level II Disaster

A. Key employees: Plan administrator — William Johnson
Computer operations — Frank Brett

B. Procedures

1. Plan administrator

- Contact president and above employees to inform them of the disaster.
- Complete the disaster-level assignment matrix by assigning priorities to each department.
- Follow up and check off for timely completion of assignments.

2. Computer operations

- Notify all users to log off the dedicated file server until further notice and document procedures in process that were interrupted.
- Notify hardware vendor of the existing disaster and arrange for immediate hard disk testing or replacement of hard disk.
- Attempt backup of hard disk onto new back-up media. If this fails, notify users that all systems will be restored to the date and time of last backup and therefore activity after that date will have to be reprocessed.
- Test repaired or new hard disk for diagnostics and proper operation. Once satisfactory, notify users to resume operations.

III. Level III Disaster

A. Key employees: Plan administrator — William Johnson
Computer operations — Frank Brett
Employees affected by terminal failure

B. Procedures

1. Plan administrator

- Contact computer operations manager and affected employees at remote locations.
- Complete disaster-level assignment matrix by assigning priorities.

- Follow up and check off completion of assignments.

2. Computer operations

- Run diagnostic tests on modems to determine cause of failure and contact phone company to notify them of the interruption.

- Assign affected employees to any open terminals and notify their supervisor of action.

- Notify hardware vendors and contact maintenance personnel of failure and arrange for repair or replacement.

IV. Level IV Disaster

A. Key employees: Plan administrator — William Johnson
Computer operations — Frank Brett

B. Procedures

1. Plan administrator

- Contact computer operations manager.

- Complete disaster-level assignment matrix by assigning priorities.

2. Computer operations

- Notify all users to terminate any activity on the dedicated file server

- Back up all files of the dedicated file server.

- Run diagnostics on the file server to determine extent of damage (that is, bad sectors on the hard disk or potential of a spreading virus).

- Review computer activity log for potential causes.

- Block out bad sectors on the disk and restore corrupted files or send in the virus killer program and test for success. Replace and restore hard disk, if necessary.

- Notify all users when operations are at full capacity.

Exhibit 42-4.1

Disaster Level Assignment

Disaster Level________________

Department or Area	*Percentage Affected*	*Locations*	*Personnel*	*Systems*		*Priority*
				Network	*PCs*	
Corporate facilities	______	______	______	______	____	______
Order entry	______	______	______	______	____	______
Billing	______	______	______	______	____	______
Cash receipts	______	______	______	______	____	______
Payroll	______	______	______	______	____	______
Purchase order	______	______	______	______	____	______
Receiving	______	______	______	______	____	______
Accounts payable	______	______	______	______	____	______
General ledger	______	______	______	______	____	______
Other__________	______	______	______	______	____	______

Exhibit 42-4.2

Key Plan Information

Off-Site Storage Facilities

Daily backups are maintained at XYZ storage facility.

Phone:	(913) 111-2222
Key contact:	John Smith or Bill Jones
Location:	8717 W. 110th Street Overland Park, KS 66210
Description:	Warehouse facility back-up tapes are filed by day in fireproof safes. XYZ maintains security over safes. Access is available twenty-four hours a day.

Back-up Site

Computer operations are backed up at BU.

Phone:	(913) 222-1111
Key contact:	Sally Jones or Bertha Smith
Location:	15620 W. 99th St. Lenexa, KS 66215
Description:	BU requires two hours' notice to set up available computers. Estimated time to load programs and data files is twelve hours. Access is available twenty-four hours a day.

Key Contacts

Fire department:	(913) 237-1212
Police:	(913) 245-1188
Insurance:	Jones Insurance Company (913) 888-1273 Phil Smith or Doug Peete

Security:	Maggie Lester or Mark Aldridge (212) 123-4567
Business forms:	ABC Form Company (816) 711-1271 Mike Hill or Mike Myers All company forms are purchased here, and ABC maintains originals for duplication. ABC needs two hours' notice to begin printing.

Personnel Assignments

Computer operations are set up at the back-up facility.

Data loading:	Ernest Billings
Home phone:	(913) 222-1717
Car phone:	(913) 311-6401
Beeper:	(913) 311-7777
Back-up person:	Steve DeBerg
Home phone:	(913) 111-7218

Vendors for Replacement Material

1. Hardware: All hardware can be purchased at BKB Computers, 1111 Grand Avenue, Lenexa, KS (913-494-8000). BKB maintains an inventory of all hardware and will deliver it within two hours of contact.

2. Software: Joseph Account, CPA, 1274 Main Street, Lenexa, KS (913-492-8787), maintains working copies of the software programs if the back-up copies fail.

BIBLIOGRAPHY

Baker, Richard H. *The Computer Security Handbook.* Blue Ridge Summit, Pa.: TAB Professional and Reference Books, 1985.

Burger, Ralph. *Computer Viruses: A High-tech Disease.* London: Abacus, 1988.

Cooper, James A. *Computer Security Technology.* Lexington, Mass.: Lexington Books, 1984.

The Disaster Contingency Book. Long Beach, Calif.: Chantico Publishing, 1985.

Highland, Harold J. *Protecting Your Microcomputer System.* New York: John Wiley & Sons, 1983.

Lord, Kenniston W. *The Data Center Disaster Consultant.* Wellesley, Mass.: Q.E.D. Information Sciences, 1977.

Lundell, Alan. *Virus!: The Secret World of Computer Invaders That Breed and Destroy.* Chicago: Contemporary Books, Inc., 1989.

Muttic, Snead. *Security Mechanisms for Computer Networks.* Peoria, Ill.: Ellis Horton, 1989.

Richard, Arnold. *The Disaster Recovery Plan.* Wellesley, Mass.: Q.E.D. Information Sciences, 1989.

Roberts, Ralph and Pamela Kane. *Computer Security.* Greensboro, N.C.: Compute! Publications, Inc., 1989.

43/100 SOFTWARE PACKAGE EVALUATION AND SELECTION

CONTENTS

43/100 SOFTWARE PACKAGE EVALUATION AND SELECTION

43/105 SCOPE OF THIS PRACTICE AID

.01 The purpose of this practice aid is to familiarize the practitioner with the activities, approach, and methods normally involved in assisting clients with the evaluation and selection of software packages when hardware decisions have already been made. The installation of software packages has become increasingly popular because of—

- The low cost of packages in comparison with that of custom-developed software.
- The availability of industry-oriented packages.
- The level of documentation often provided with the software.
- The availability of future enhancements and ongoing technical support for packaged programs.
- The growth in the number of software packages that have been tested and refined.

.02 However, the practitioner should be aware that packaged systems could offer several disadvantages, such as—

- An inability to meet key-application requirements.
- Inflexibilities requiring procedural changes within the client's business.
- An inability to adapt to future changes in the client's business environment.
- Vendor restrictions on modification of the product, which affect the ability to customize the package and complicate the updating process.

.03 With knowledge of these potential advantages and disadvantages, the practitioner may assist a client through the entire sequence of activities described in this practice aid or may be asked to assist with a single activity or combination of activities in the system development process. Thus, each engagement may differ from others in scope. This document may also be useful in other situations, but it would have to be adapted to the particular circumstances.

.04 This practice aid also addresses the practitioner's role in assisting a client in software contract negotiations with a third party. It provides the practitioner with information that may be useful in rendering such assistance.

43/110 TYPICAL ENGAGEMENT SITUATIONS

.01 Typical situations that might prompt a client to seek assistance in evaluating and selecting software are described in the following paragraphs.

Acquiring Hardware and Software

.02 The client wishes to acquire computer hardware and software for the first time and therefore may have little or no experience with computers and the alternatives available. Additional emphasis on client education and training might be justified.

Expanding Computer Applications

.03 Often the client is already making use of a computer but wishes to expand its applications. For example, the client may have installed a computer system in order to automate basic accounting functions, such as general ledger, payroll, accounts payable, and accounts receivable. Now, however, the client has identified a need for additional applications in order to better control inventory, to improve analysis of sales efforts, and to produce additional management information.

Combining Stand-Alone Systems

.04 Frequently the client wishes to combine several stand-alone automated application systems. In these cases existing application systems are not integrated; that is, the systems do not "talk" to one another or exchange data. For example, the installed systems may require manual entries to the general ledger for accounts payable transactions. Now the client wants the payables application to automatically pass information or journal entries to the general ledger. Solutions may involve installing an integrated accounting software system or developing custom interfaces that will provide for automatic journal entry.

Replacing Software Systems

.05 Often the client wants to replace an existing application software system with a newer one. The older system may have been installed before extensive software packages were readily available or may have been the result of custom development or in-house development several years ago. Now, however, extensive libraries of commercial software packages are available. These provide additional features, greater efficiency, and generally improved performance; software enhancements may also improve the effectiveness of the client's application system. If changes in the client's work methods frequently necessitate extensive manual reworking of the current automated system, this may be another reason for the client to switch to a different system.

43/115 ENGAGEMENT ACCEPTANCE CONSIDERATIONS

.01 A simplistic view of information systems can cause many misunderstandings, perhaps even outright failures, in an engagement involving software package evaluation and selection if the client is relatively uninformed about what must be done, how it will be accomplished, and what will result. Through lack of practical experience, client personnel may think of a computer as a machine that responds to every request immediately and without difficulty. It is therefore important that the practitioner be able to describe the evaluation-and-selection process to client management and staff in realistic and understandable terms and that they support the process.

.02 The practitioner should accept an evaluation-and-selection engagement only if client management and staff understand its objective and how it can be achieved, the nature and amount of the client contribution expected, and the role the practitioner will play throughout the engagement. The practitioner should also consider whether the CPA firm can provide the necessary technical competence (from inside or outside the organization) when the client will need it. Such technical competence normally includes many different types and degrees of skill in order to perform planned tasks with maximum efficiency. Making each required skill available at the appropriate time can be demanding.

.03 If the practitioner anticipates that packaged software is unavailable for the application under consideration, this and the practicality (the cost and risk) of custom software should be discussed with the client prior to proceeding with the engagement.

43/120 ENGAGEMENT OBJECTIVES AND CLIENT BENEFITS

.01 The major objectives of a software package evaluation-and-selection engagement are (*a*) to determine the feasibility of using software packages and (*b*) to provide the client with the information necessary to make decisions about software and possible modifications to it. To accomplish these objectives, consideration is given to software availability, functional requirements, economics, and potential benefits.

.02 In addition to potential benefits of software acquisition, the engagement itself benefits the client in several ways. For example, the client is educated through exposure to the process of evaluating present business systems features and analyzing the feasibility of each software package in relation to computer equipment and systems techniques. An orderly, well-planned analysis of the data processing alternatives will help the client develop a greater knowledge and understanding of each alternative and its features, including costs and benefits within the framework of his requirements. This knowledge will, in turn, enable the client to understand better the potential effects of each alternative on the business.

.03 Analysis of data processing alternatives will also provide risk reduction benefits.[1] Without this analysis the client might be unduly influenced by vendors' sales presentations, but with it the practitioner can help the client to identify its information and processing requirements, as well as the needed system features, before contacting vendors.

.04 Through interaction with the practitioner, client management improve their knowledge of the business applications addressed by the engagement. In addition, they gain insight into the methods and procedures used by their staff. This knowledge may permit client management to observe more effectively and, thus, to change and correct other areas of the business as well. Consequently, the client can benefit greatly from the practitioner's objective evaluation and recommendations.

43/125 ENGAGEMENT SCOPE

.01 The scope of an engagement involving evaluation and selection of a software package includes—

a. Identifying specific application functions.

b. Analyzing and evaluating how various software packages perform these applications, which encompass—

- Establishing estimated cost ranges.
- Creating request-for-proposals (RFP) material.
- Comparing vendor responses.

c. Making recommendations on the basis of already established system requirements.[2]

.02 The performance of all these tasks should result in selection of the software best suited to the client's needs.

.03 This process may, however, be complicated by the discovery of system features either desired but not available or available but not previously requested. Any cost-benefit evaluation of such a features discovery is considered an expansion of the scope of this engagement. Other related activities specifically excluded from the scope of this engagement are hardware selection, definition of system requirements, and implementation or testing assistance. The tasks that are included in this engagement are discussed in more detail in section 43/130, "Engagement Approach."

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[1] Exhibit 43A-1 in appendix 43/A provides a sample engagement letter.

[2] The analysis required to determine the specifications is addressed in section 40/100, "Information Systems Planning and General Design."

.04 Although this practice aid is not designed specifically for the evaluation and selection of a microcomputer system (hardware and software considered as a unit), the methodology is quite similar. The principal ways in which microcomputer system selection differs from packaged software selection include—

- Greater client involvement in the evaluation-and-selection process so that fees for consulting services are at a reasonable level when compared to the total hardware and software expenditure.
- Increased use of questionnaires and checklists during the analysis-and-evaluation process.
- Increased emphasis on hardware capabilities and costs during the evaluation, especially size and speed for various peripherals, expandability, maintenance record, and the number of current users.

Appendix 43/B provides a more detailed description of the additional activities that should be considered for microcomputer system evaluation and selection. It also contains a list of potential areas of responsibility for the client and the practitioner during the microcomputer system selection process.

43/130 ENGAGEMENT APPROACH

Engagement Phases

.01 An engagement of evaluate and select software may be divided into three phases: (*a*) review of the definition of requirements, (*b*) analysis and initial evaluation of alternatives, and (*c*) software package evaluation and selection.

Engagement Activities for the Phases

.02 **Phase 1—Review of the Definition of Requirements.** The practitioner reviews the current definition of requirements that resulted from the activities described in the general systems planning phase discussed in section 40/100, "Information Systems Planning and General Design." This review should assist the practitioner in understanding the current requirements for each application.

.03 **Phase 2—Analysis and Initial Evaluation of Alternatives.** Phase 2 involves the following tasks:

- Identify sources and features of packaged software.
- Identify unique application requirements.

- Prepare preliminary estimates of resource requirements (hardware, personnel, and so forth) and related costs.

- Develop preliminary conclusions and recommendations, and review them with client management.

.04 *Identify sources and features of packaged software.* The practitioner identifies potential sources of packaged software for the application areas reviewed during the first phase of the engagement. Sources can generally be located through published directories, data processing industry publications, client industry publications, and hardware vendors.[3]

.05 *Identify unique application requirements.* The practitioner attempts to identify the specific areas within each application that are normally not included in packaged software. These areas may be specific to the client and generally require either customization of the software or additional system programming. Production of special reports or the storage of special historical information are examples of functions that may not be performed by packaged software.

.06 In addition, packaged software may not be available for certain application areas that the client wishes to automate. In this instance the practitioner would discuss these findings with the client to determine the most appropriate action. If the benefits of automation in this area will be substantial, custom-developed software may be appropriate. If the benefits will be minor, the practitioner may want to discourage the client from including this application area as an automated system.

.07 *Prepare preliminary estimates of resource requirements (hardware, personnel, and so forth) and related costs.* Based on a review of current and estimated future key-transaction volumes and processing and reporting requirements for each application area to be automated, the practitioner makes a preliminary estimate of additional hardware requirements.

.08 Input, processing, and output requirements will determine, respectively, the number and type of input devices, the type and amount of mass-storage capability, and the speed and type of output devices.

.09 Cost information for additional hardware can be obtained from hardware vendors and manufacturers or data processing industry directories. The practitioner may also need to estimate program modification charges based on published hourly programming rates or on previous experience in working with software suppliers. The amount of effort required to perform program modification will depend on the complexity of the change and the number of files and programs within the application system that are affected.

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[3] The practitioner then determines (1) the general price ranges for the packaged software, including one-time and recurring costs (license fees, installation fees, support fees, and so forth); (2) implementation or conversion assistance provided during and after the initial installation period; and (3) the level of ongoing support that will be provided for program modification or conversion.

.10 The cost of additional personnel can be estimated by using either published salary-survey information or the salaries of present data processing personnel as a basis. The practitioner determines the type and level of additional personnel that will be required to convert, install, and operate the applications to be automated.

.11 Other cost estimates may also be appropriate, and they would be accompanied by disclosure of the estimating technique and assumptions.

.12 *Develop preliminary conclusions and recommendations, and review them with client management.* The practitioner develops preliminary conclusions and recommendations based on the availability of packaged software, the estimated costs of automating the application areas, the potential benefits, and other appropriate factors. On the basis of these recommendations, the client may choose to discontinue the engagement, redirect analysis efforts, or proceed to the third phase of the engagement.

.13 **Phase 3—Software Package Evaluation and Selection.** Phase 3 involves the following activities:

- Develop selection criteria
- Develop a request for proposals for packaged software.
- Submit the request for proposals to appropriate sources, and answer questions that may arise.

.14 *Develop selection criteria.* The practitioner assists the client in developing and ranking the primary factors that the client will use in selecting the best packaged software alternative. Factors often include total cost, the ability to fulfill the processing and reporting requirements, the level of ongoing technical support, vendor experience, and the client-vendor relationship. The selection factors will eventually be used to evaluate each alternative. (See exhibit 43A-2, "Sample Vendor-Evaluation Work Sheet.")

.15 *Develop a request for proposals for packaged software.* The processing and reporting requirements developed during the definition-of-requirements engagement are combined with the key-transaction volume for each application area to form a request for proposals (RFP) for packaged software. (The practitioner may wish to structure the RFP's processing and reporting requirements in a checklist, as an aid to later evaluation.) The RFP would also contain instructions regarding specific information that each vendor should include in a proposal, or it could contain instructions necessary to complete evaluation work sheets (for example, an additional hardware component schedule, a cost schedule, and so forth) that have been attached.

.16 *Submit the request for proposals to appropriate sources, and answer questions that may arise.* The RFP is sent to the potential sources of packaged software that were identified during the second phase of the engagement, and they are allowed a reasonable amount of time to respond. These sources may benefit from the opportunity to ask questions and to clarify any points in the RFP that they do not understand. If the systems requirements are complex, the practitioner may also consider conducting a bidders' conference.

.17 *Review and evaluate packaged software proposals.* The practitioner reviews and evaluates the proposals received from the packaged software vendors in terms of the criteria for selection developed earlier in this phase of the engagement. The evaluation may consist of a comparison of additional hardware components proposed by vendors, a comparison of each software package's features and its benchmarks, a systems test, and a synopsis of each vendor's strengths and weaknesses. In addition, the evaluation includes developing a detailed schedule of one-time as well as continuing costs that the client would incur for each proposed package. The practitioner may also want to check vendors' references to ensure that the vendors have installation experience and can provide adequate levels of initial and ongoing support to the client. (See exhibit 43A-3, "Sample Vendor-Reference Work Sheet.") Attendance by the practitioner or client at vendor presentations and visits to existing installations may also be appropriate.

.18 *Develop final conclusions and recommendations, and present them to client management.* After vendor proposals have been evaluated, the practitioner usually prepares oral or written conclusions and recommendations and presents them to client management so that an informed decision regarding packaged software selection can be made. The practitioner may also consider additional services or involvement with the client beyond this decision point, including assistance in contract negotiations and installation planning. Such additional services would constitute separate engagements.

43/135 OPTIONAL ENGAGEMENT ACTIVITIES

Identifying Procedural Changes Necessary to Automate the Application Areas

.01 During phase 2 of a software package evaluation-and-selection engagement, the practitioner identifies procedural changes needed to automate the application areas under consideration. This activity includes numbering certain accounts or items, preparing and coding source documents, and using printed forms. This activity may be performed in less detail during phase 1 and in greater detail during phase 2, when the practitioner has a better understanding of the functions of the packaged software being evaluated.

Previewing Vendors

.02 Depending on the number of vendors identified during phase 2, the practitioner may preview them in order to reduce the number who will receive the request for proposals (RFP) and be subsequently evaluated. This activity includes developing a potential vendor list, an interest letter, and factors that can be used to initially evaluate and select viable vendor candidates. The interest letter (see the sample provided in exhibit 43A-4) is sent to each vendor on the potential vendor list, with an adequate time allowance for vendors to respond. Evaluation factors may include each vendor's ability to provide packaged software for specific applications, general cost ranges for the software, the level of technical support available and its related costs, and the desire or ability to modify the packaged software to fit specific requirements. Once vendor responses are evaluated, the candidates are chosen, sent the RFP, and asked to provide a packaged software quotation.

43/140 PROJECT CONTROL

Objectives and Scope

.01 The practitioner uses normal project control techniques to ensure that the objectives of the project are achieved within the anticipated time frame and for the estimated fees. Any changes in project scope would be communicated to the client with additional fee estimates, if appropriate.

Reporting Progress

.02 The client is kept informed about the status of the project. The practitioner may communicate project status orally or through informal file memorandums or progress reports.

Client Involvement

.03 In addition to involvement in engagement planning and progress reporting, the client receives the deliverables and makes major decisions after—

- Reviewing the requirements definition and key-transaction volumes at the close of phase 1. The client verifies the accuracy of the information and revises the requirements as necessary.
- Reviewing the results of phase 2 activities. On the basis of the availability of packaged software products, their related costs, and other important factors, the client decides whether to proceed to phase 3 of the engagement, to discontinue the project, or to redirect analysis efforts.
- Reviewing the results of phase 3 activities. Once the packaged software proposals are evaluated, the client can review the results of the evaluation. With the evaluation and the practitioner's recommendations, the client should have enough information to make a final selection.

43/145 RESULTS

Results of Phase 1—Review of the Definition of Requirements

.01 A modified list of requirements may result from the review of the definition of requirements.

Results of Phase 2—Analysis and Initial Evaluation of Alternatives

.02 The result of the analysis and initial evaluation of alternatives may be:

a. A list of packaged software sources that contains relevant information for the applications in question

b. A list of application areas requiring program modification, including the specific features, reports, or processing requirements likely to require customization of a packaged program product and the relative complexity of the customization

c. Preliminary estimates of additional resources, including hardware and personnel, that may be required to automate the applications

d. Preliminary cost estimates for packaged software, additional computer hardware, software modifications, personnel, and so forth

e. Findings, conclusions, and recommendations based on phase 2 activities

Results of Phase 3—Software Package Evaluation and Selection

.03 The typical results of the software package evaluation and selection are:

a. Selection factors on which the client will base the final decision

b. A request for proposals, which contains the requirements definition for each application, the relevant key-transaction volumes, and instructions to each vendor that will assist him in making a proposal to the client

c. A report on software package evaluation and selection, including the following:

- A comparison of the features of each proposed software package
- A comparison of the additional hardware components that individual vendors propose to automate each application
- A list of each vendor's strengths and weaknesses based on the selection factors
- Results of the reference checks of vendors performed during the project
- A comparison of the additional one-time and recurring costs that each vendor anticipates the client would incur
- The practitioner's findings, conclusions, and recommendations that are based on phase 3 activities

43/150 SOFTWARE CONTRACT NEGOTIATIONS

Engagement Considerations

.01 When most clients decide to acquire off-the-shelf microcomputer software (for example, electronic spreadsheets and word processing), usually no contract negotiations are involved. Some purchasers of these software packages, however, may wish to negotiate a contract for the site license with a vendor if a large-volume purchase is involved or if the software is to be used on a network.

.02 Whether the client purchases off-the-shelf software or customized software, it often represents a significant investment and will likely become an integral part of the business environment, thus establishing a dependency on the continued and proper functioning of the product. In some instances, a formal contract may be the best approach to protecting the interests of all parties involved. The effort to reach such an agreement, however, can be highly involved, requiring diverse technical skills and meticulous attention.

.03 In assisting a client in negotiating with a third-party vendor, the practitioner provides the client with a technical resource that can result in an advantageous contract which avoids many of the pitfalls common to software acquisitions. However, the practitioner is not a party to the contract and, accordingly, needs to be careful to maintain the role of consultant in the eyes of the client and the vendor. Since final decisions concerning the contractual terms and the acceptance of the contract as a whole are to be the client's, the practitioner needs to explain all potential decisions and their consequences in terms the client can grasp. Once the client's decisions are made, the practitioner can provide further assistance by reviewing the final document for conformity with those decisions before it is signed. The client's attorney and the practitioner's attorney would, of course, also review the final contract.

.04 The practitioner's role is technical consultant, not attorney. The practitioner's technical knowledge and experience gained through assisting other clients and their attorneys in software contract negotiations can be a valuable resource not only for the client, but also for the client's attorney. However, the practitioner's attorney also needs to be consulted to determine whether any legal advice is to be dispensed to the client. If so, the practitioner may decide not to assist the client, or at least not to assume the role of the attorney. Before accepting the engagement to assist in contract negotiations, the practitioner needs to determine the extent of his or her liability.

Why Negotiate a Contract?

.05 The acquisition of computer software can be a major transaction with many ramifications for the client. In some cases the cost of the software may be a substantial portion of the total cost of the project. Considerable cost may be involved in training personnel and converting to the new system. There may also be enhancements and modifications to the system as well as continuing support costs. More important, the client's business may become dependent on the software, and any failure or interruptions of service could have a severe impact on the functioning of the business. The client is risking far more than the vendor. Therefore, it is imperative that the client's interests and concerns be provided for in the contract. Vendors should be willing to accommodate reasonable requests by prospective customers.

.06 Before the acquisition of a software package or services, clients may be asked by vendors to sign a contract. Clients may view these contracts as "boiler plate" because the vendors represent that all licensees are signing the same agreement. However, vendor-supplied contracts are usually designed to protect the vendor's interests.

.07 The client is often eager to acquire and begin using the selected software as soon as study and analysis have determined that it meets the specified requirements. At this time the client may be vulnerable because client management tends to place great trust in the vendor's product and has developed a high regard and respect for the vendor's technical competence. Often, unwritten assurances may have been provided, and these can create a false sense of security. The client's eagerness, coupled with trust in the vendor, might cause significant oversights if pertinent matters are not carefully addressed in the contract negotiating process.

.08 It is expressly for these reasons that it is appropriate for the practitioner to help the client carefully evaluate requirements, enumerate concerns, address them with the vendor, and have them formalized as part of the contract. One should not misconstrue the term *negotiating* to mean a haggling session; rather, it is an opportunity for constructive discussion and resolution of open items.

.09 A vendor-supplied contract will typically address all the vendor's concerns regarding use of the software and protection of its proprietary rights. In these engagements the role of the practitioner is generally to assist the client in enumerating any user concerns regarding both the product and anticipated future dealings with the vendor. The practitioner should have an attorney evaluate any warranties expressed or implied by the vendor, as well as all restrictions and limitations on the product or services. In addition, the attorney can apprise the practitioner's client of the steps that could be taken if contract provisions are not fulfilled because of nonperformance of either the product or service.

.10 It is important that all anticipated deliverables (packaged programs, programming documentation, file layouts, training, and so on) be determined and itemized in the contract. All financial arrangements, whether fixed payments or progress payments, need to be clearly spelled out, and the appropriate timetable for such payments needs to be clearly established. If payment schedules are to be made in accordance with user acceptance, then the acceptance criteria need to be agreed on in advance. Many contracts will include provisions for an ongoing relationship with the vendor, either through renewal terms, product maintenance, or subsequent services. These terms also need to be enumerated in detail.

.11 If the necessary effort is expended during the contract negotiating session, both parties should have a well-defined understanding of their expectations. This will lead to a more harmonious relationship between client and vendor. Although a practitioner can productively contribute to the process, no negotiating session can guarantee the elimination of all potential problems. However, the absence of such an effort could lead to a disastrous relationship and a potentially significant financial loss, as evidenced by numerous instances that have resulted in litigation.

.12 The practitioner's aim is to assist the client in negotiating a contract that is as favorable as possible to the client's needs, but at the same time, the contract should not exceed the vendor's technical and financial capabilities to deliver the specified product.

Preparation for Negotiations

.13 Prior to the signing of a contract, there is generally a formal meeting between the vendor and the client. In this meeting, areas of concern are addressed and, hopefully, resolved. However, the client should prepare to enter such a session.

.14 The client needs to establish a negotiating team. An attorney will be a key member of this team. The attorney would address the clients' legal concerns and would draft and approve the final written agreement. The team would likely also consist of, but not necessarily be limited to, the practitioner as well as some or all of the following:

- An accountant, to advise on not only such matters as the audit and tax ramifications of the contract, but also such technical concerns as the suitability of the software for the client, the level of training offered by the vendor, support issues, customizing ability, the availability of source code, and so on

- An information systems representative, to address information systems matters

- The intended user of the product or service, to provide guidance on objectives or performance expectations

- The ultimate decision maker, who may or may not be one of the above

The practitioner may fill one or both of the roles of accountant and information systems representative.

.15 Once the negotiating team has been established, specific issues need to be addressed. A checklist of all the items to be considered would be developed, with special emphasis on the problem areas in the installation and continued operation of the software. A sample software contract negotiations checklist is provided in exhibit 43A-5 in appendix 43/A. Each item would be analyzed and a position established. It would be helpful to draft desired contract provisions before the negotiating session so that the client's wishes could be precisely communicated to the vendor.

.16 The negotiating session may reveal divergent philosophies between the client and the vendor. Because of this, it is preferable to have formulated alternative approaches. Therefore, the practitioner would assist the client in identifying, in advance, items that are non-negotiable and those for which alternatives can be considered.

Objectives

.17 In contract negotiations, it is important to keep sight of the major objectives of both parties to the transaction. The following are some possible objectives:

Client's Major Objectives

- Delivery and installation will be timely.
- Software will be used as needed without burdensome restrictions.
- Costs will be within the anticipated range.
- Continuing support of the software will be available as needed.
- The client will be indemnified if anything goes wrong.

Vendor's Major Objectives

- The client will require the vendor's software.
- The client will pay as agreed.
- The client will not make unreasonable demands for support services and so on.
- The client will protect proprietary rights and will not redistribute the product.
- Potential liability for the transaction will be limited.

Specific Issues

.18 The following paragraphs provide a guide to some of the specific issues in negotiation. The attorney representing the client will draft the actual contract provisions and be involved in the other legal considerations.

.19 **Standard Contract vs. Customized Agreement.** Many factors determine whether a contract will be the standard contract proposed by the vendor or a customized agreement. As previously mentioned, vendor contracts are normally weighted heavily in a vendor's favor. Initially it was industry practice for vendors to insist on the execution of their standard contracts; however, this practice has changed considerably over the years, and now many negotiated and custom agreements drafted by attorneys are used.

.20 Certain vendors, largely because of a dominant market position, insist on using their standard contracts. Few contract modifications, if any, may be extracted from these vendors, but such modifications can be significant and should therefore be sought.

.21 The more sophisticated software suppliers have several versions of "standard contracts" to apply under different circumstances and in different industries. Although the use of several versions may appear to introduce some customization, this is not the case. The various versions are all written with the supplier's interests being paramount. If the vendor cannot be persuaded to modify the standard contract, the practitioner might recommend the use of the vendor's standard federal government contract, which grants more concessions to the client than the version normally proposed to nongovernment users.

.22 Making changes in standard vendor contracts requires careful planning by the client. In order to present meaningful contract modifications to the vendor, the client needs to precisely define contract requirements before negotiations. The practitioner would assist in this process. If a client-prepared draft can be used as the basis for negotiations, the vendor will have to argue for each change from this proposed agreement, thus placing the client in a much better bargaining position.

.23 Modification of software agreements—either the vendor's or the client's—also requires legal assistance. The client should engage counsel, preferably a lawyer with experience in data processing contracts.

.24 Finally, all provisions negotiated and decided on should be incorporated in writing in the final version of the agreement. The client will then be able to enforce the promises made by the vendor should problems arise.

.25 **Rights and Limitations.** Matters of rights and limitations include package content, ownership, acceptance, restrictions on use, duplication, and alteration, and publicity and endorsements.

.26 *Package content (software, documentation, training).* In negotiations with the vendor, the client should consider stating, in detail, and incorporating in the resulting agreement its expectations of the total software "package" it wishes to acquire. Such a package could include software, documentation, and training.

.27 **Ownership.** The current environment favors ownership of the software by the vendor-programmer. Vendors most commonly grant licenses to clients to use the software, and ownership remains with the vendor. Clients should therefore clarify their rights to the software.

.28 The client's prime objective is usually not ownership, but the right to continuously use the software without interference. Such use would extend to affiliates and successors (in the event of a sale of the business). If appropriate, the client may want the right to transfer the software to others.

.29 *Acceptance.* Among the most important matters to be resolved are defining the acceptance criteria and determining the tests to be used in evaluating the product or services prior to payment to the vendor. The client should attempt to identify any potential problem areas and address them as part of the contract negotiations.

.30 *Restrictions on use, duplication, and alteration.* The negotiations with the vendor should ferret out any copyright limitations and define the rights that will be conferred on the client by the vendor.

.31 Restrictions on use, such as confining the software to a single location or limiting the equipment in the system, should be carefully spelled out. If use at more than one location is permitted, the handling and possible payment of any additional fees and expenses should be defined by the vendor.

.32 The right to make copies of the software and of documentation for backup and use at another site in the event of an emergency is important. In addition, the right to disclose the material to employees, software and hardware support vendors, consultants, auditors, and other specified parties is needed.

.33 *Publicity and endorsements.* The vendor might be asked to consent to refrain from using the client's name in advertising or other publicity unless the client gives permission.

.34 **Safeguards.** Safeguards relate to contract provisions such as entire-agreement clauses, disclaimers, side agreements, contract modifications, warranties and penalties, confidentiality, infringement, vendor default, and termination procedures.

.35 *Entire-agreement clauses, disclaimers, and side agreements.* Most contracts will have a provision similar to the following:

> This agreement is the complete, exclusive, and entire agreement between the parties and supersedes all proposals, oral or written, and all other communications between the parties relating to the subject matter of this agreement.

Vendors may attempt to include numerous disclaimers and warranty limits in their contracts and prefer to give oral assurances regarding performance. Such oral assurances are very difficult, if not impossible, to enforce should problems arise. The client should also avoid promises and concessions made in so-called side agreements or side letters, which provide very little assurance and may be difficult to enforce.

.36 *Contract modifications.* The agreement should be clear on how subsequent modifications to contract terms will be made.

.37 *Warranties and penalties.* Warranties are commonly of two types—express and implied. They should, at a minimum, cover ownership, merchantability, and timing of installation. These points should be defined so that performance can subsequently be clearly measured and monitored.

.38 The agreement might also spell out penalties for nonperformance by the vendor. The primary goal here is not necessarily to collect monetary damages, but rather to obtain the performance specified and agreed on. Remedies for nonperformance may be monetary, including liquidated or other damages, or they may be nonmonetary, encompassing, at a minimum, provisions that the software be corrected or replaced.

.39 *Confidentiality.* The client may wish to be protected against the vendor's revealing client data, business methods, and trade secrets.

.40 *Infringement.* It may be alleged by a third party that the software acquired by the client infringes on the patent, copyright, proprietary right, or trade-secret right of that party. A suit or proceedings could be brought against the client to prevent continued use of the software or to seek payment or damages for its use.

.41 The vendor should agree to defend such suits at its own expense and pay all damages and costs awarded to the third party. In the event the client is enjoined from further use of the software, the vendor should be required either to procure new rights for the client to use the software or to replace the software with noninfringing software. If the software cannot be replaced by the vendor, the client should have the right to terminate the agreement and recover all costs.

.42 *Vendor default.* The agreement should anticipate how the client will continue to operate in the event the vendor fails to provide what was agreed on or goes out of business. Rapid vendor turnover poses a significant risk to the client. To be at least partially protected against default, the client should obtain a copy of the program source code and documentation or have them placed in escrow with an independent third party at the time the contract is signed. The source code can then generally be retrieved and used by the client even if the vendor goes out of business or for any other agreed-on condition. The escrow provisions should provide for testing the source code to verify that it corresponds with the object programs delivered to the client and that subsequent enhancements and updates to the system will be placed in escrow.

.43 *Termination procedures.* Termination for cause could be permitted under the agreement if the vendor misses important, preestablished deadlines or if the software does not pass agreed-on acceptance tests. The amount, timing, and type of compensation for termination by the client or vendor could be agreed on and incorporated in the contract. Timely notice and use of arbitration in termination could be similarly covered.

.44 **Servicing and Maintenance.** The client can usually contract separately for servicing and maintenance (level of support, updates, upgrades, and so forth).

.45 *Support.* Sound vendor support is a key ingredient in the successful implementation of any software program. Such support would span the preinstallation, installation, and postinstallation phases of the implementation.

.46 A significant aspect of preinstallation support is the development of an installation plan. Such a plan could include (*a*) a fairly precise timetable, (*b*) personnel requirements—the client's and the vendor's—for installation, (*c*) progress reports, (*d*) meetings, and, finally, (*e*) an agreement on criteria for the acceptance of the software and the definition of what constitutes exceptions that call for corrections or invoke some default clauses in the agreement.

.47 Installation support principally involves acceptance testing of the software. The software is normally tested on the actual hardware system the client expects to use on a regular basis. To avoid misunderstandings and subsequent disagreements, acceptance tests could be a joint endeavor by the vendor and the client. Any errors or discrepancies discovered as a result of these tests should be corrected by the vendor free of charge and on a timely basis. Conversion assistance, if any, including the roles of the client and vendor in this process, is another consideration.

.48 Postinstallation support includes the correction of any errors discovered in actual operations conducted within a previously agreed-on time period. Whether or not the vendor may charge the client for these corrections depends on what discrepancies were included in the categories to be fixed free of charge. Such categories would have been established during the preinstallation support phase.

.49 Ongoing technical support, maintenance, and possible replacement of software would also be part of postinstallation considerations. Vendors usually offer annual maintenance agreements to provide these services at a fixed price. The agreement should specify the manner in which support will be provided (for example, via telephone or on-site) and the level of support (for example, unlimited or during specific hours).

.50 *Training.* To successfully run the software program after installation, client personnel need to be trained in its use. The vendor may provide such training not only for operators, but also for executives and others who use the system and its output. The availability, cost, and location of current and future training would be agreed on in advance and then documented in the agreement.

.51 *Capacity to upgrade.* As the client's business grows and its activities increase, so may the need for data processing services. This often necessitates a change or upgrade in hardware. If appropriate software is acquired, it could provide for ease of handling of such upgrades and changes. The agreement could also provide for obtaining the upgrades based on a prearranged cost or formula.

.52 **Financial Arrangements.** The financial arrangements to be considered include price and the schedule of payments.

.53 *Price.* Price is, of course, an important consideration in software contract negotiations. Some vendors will not deviate from their published prices; others will negotiate.

.54 *Schedule of payments.* Payment schedules should be closely tied to the progress of the implementation process. Implementation may stretch over a fairly long period, or it can be of short duration when it entails solely the installation of packaged software. Implementation progress could be measured by acceptance testing. The criteria for such testing should be defined, agreed on, and spelled out in the agreement.

APPENDIX 43/A

ILLUSTRATIVE LETTERS AND FORMS

Exhibit 43A-1

Sample Engagement Letter

[*CPA Firm's Letterhead*]

Date

Client's Name
Address
City, State, Zip Code

Dear ____________:

This letter contains our proposal to assist you in the evaluation and selection of application software.[4] We believe the following approach will provide you with an organized evaluation of the alternatives available and will thereby enable you to select application software in accordance with your requirements.

Engagement Objective

The objective of this engagement is to provide you and your personnel with the consultation, instruction, and technical guidance you will need in order to perform an effective evaluation and selection of application systems.

Client Benefits

When this engagement is completed, you should receive the following benefits:[5]

- A careful evaluation and analysis of your processing and reporting requirements, which will determine the feasibility of using packaged software to meet these requirements and will allow you to consider which packaged software will be appropriate.

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[4] Depending on the nature and complexity of the engagement, the steps described in a proposal letter may be less or more detailed than the ones in this illustration.

[5] The practitioner needs to match specific benefits (as opposed to the general ones listed here) to the client's objectives, which will depend on applications areas.

- The development of a detailed systems specification for the application. This specification can be provided to appropriate vendors of packaged software and will help you compare and evaluate various software packages.

Project Scope and Approach

To accomplish the objective of this engagement, we will perform the following activities:

Phase 1—Review of the Definition of Requirements

The definition of requirements for each application will be reviewed to gain an understanding of your processing and reporting requirements. Discussions will be held with your personnel to itemize any changes or enhancements that you desire in the requirements defined for each application area.

Phase 2—Analysis and Initial Evaluation of Alternatives

a. Identify packaged software sources. We will identify sources that can provide software packages for the following application areas:____________, ____________ and, ____________. Packaged software sources will be located in published directories, data processing industry publications, and so on. These vendors will be sent a copy of the application requirements developed during the first phase of the project and will be asked to provide basic information regarding applications under consideration.

b. Identify those applications whose processing and reporting requirements cannot be met by general application software packages. Occasionally, because of the uniqueness of a company's requirements, general software packages for some applications are not readily available. These applications need to be identified because they may have a substantial impact on the initial costs of implementing automated systems. In some instances management may subsequently decide to eliminate these requirements from the system's objectives rather than incur the costs of developing customized application programs.

c. Prepare preliminary estimates of the resources required to automate the application areas and their related costs. On the basis of your current and projected key-transaction volumes and your processing and reporting requirements for each application area, a preliminary estimate of additional hardware requirements can be made. With these findings, a realistic range of estimated costs can be developed.

   We will use published industry sources to determine the range of costs for hardware, application software, equipment maintenance, personnel, and other major-expense items.

d. Accumulate findings and formulate initial recommendations. At this time, enough information is available to evaluate the overall impact of implementing additional data processing capabilities. In addition to estimating one-time and recurring costs for the software itself, we will also identify areas that would require detailed systems design and programming.

e. Present preliminary findings to management. Management will now have sufficient information to decide whether to redirect efforts, discontinue the project, or continue the investigation as planned. If the investigation is continued, phase 3 would begin.

Phase 3—Software Package Evaluation and Selection

a. Prepare the selection factors. We will provide you with a list of factors often used in evaluating automation alternatives. In addition, we will assist you in ordering and quantifying these factors to best suit your needs. These factors will then be used to evaluate the vendors' proposals and assist in making the software selection decision.

b. Prepare a request for proposals for packaged software. We will provide each software vendor with the basic information required to make a specific proposal. The request for proposals (RFP) will use a standard format, which assists in comparing and evaluating the proposals, and will include (1) a description of the current system, (2) a list of application requirements, and (3) a list of engagement requirements.

c. Submit the request for proposals to appropriate vendors, and answer vendors' questions. We will meet with the vendors, if appropriate, to further explain the RFP and to answer their questions.

d. Review and evaluate vendor proposals. We will evaluate vendor proposals on the basis of the factors described above and then eliminate less-qualified vendors. We will request additional information from the remaining vendors, for example, reference checks, financial stability, installation site visits, demonstrations, and so on. In addition, we will prepare a cost comparison of the proposed software as well as a detailed schedule of one-time and recurring costs.

e. Develop final conclusions and recommendations, and present them to management. We will provide a formal report containing the information you need to make a final decision. The report will be accompanied by a complete oral presentation.

Project Deliverables

The deliverables resulting from each phase of this engagement are described below:

Phase 1—Review of the Definition of Requirements

a. Processing and reporting requirements for each application.

b. Key-transaction volumes.

Phase 2—Analysis and Initial Evaluation of Alternatives

A phase 2 report containing—

- A list of packaged software sources.
- A list of application areas likely to require program modification.

- Preliminary estimates of additional resource requirements.
- Preliminary cost estimates.
- Preliminary conclusions and recommendations.

Phase 3—Software Package Evaluation and Selection

a. An RFP containing—

- A requirements definition for each application.
- Key-transaction volumes.
- Background information.
- Instructions to the vendors.

b. A phase 3 report containing—

- A comparison of packaged software features.
- A comparison of additional hardware requirements.
- A summary of each vendor's strengths and weaknesses.
- A summary of vendor-reference checks.
- A detailed cost comparison of the alternatives.
- Conclusions and recommendations.

The above deliverables will be accompanied by a complete oral presentation.

Fees

The fees for this engagement are based on our standard rates for actual time spent on the engagement plus out-of-pocket expenses. We estimate that our fees for providing the services proposed in this letter will be between $X,XXX and $XX,XXX. We plan to bill you monthly for the services provided.

Sincerely,

____

[*Signer's Name*]

[*Title*]

Exhibit 43A-2

Sample Vendor–Evaluation Work Sheet

Use

Using the vendor-evaluation work sheet is optional. The key to effective use is to rate vendors objectively. To accomplish this, it is essential that clients fully understand the importance of choosing and establishing ranks for the factors that will be used to select software. Then the practitioner, using these factors and their ranks, will evaluate each software vendor. This procedure provides flexibility, and the factors can range from a simple summary (as shown on page 43/100-26) to a list of dozens of specifications representing a complete selection process.

Procedure (As Shown)

The client, with the advice and guidance of the practitioner, establishes the major factors that will be used to select the software package. In this sample, management has determined six major factors, as shown in column A and below:

1. Software Cost
2. Software Suitability
3. Software Service
4. Installation/Technical Support
5. Documentation
6. Vendor Capability

Management then ranked each factor in order of importance, from 6 points down to 1 point, as shown in column B.

Using objective and documented evaluation techniques and analysis, the practitioner evaluated and rated the vendors independently of one another on a scale of 1 to 10 points for each of the six major factors, with 10 the highest rating possible. These point ratings were entered on the left side of each vendor's factor blocks (shown in columns C through J) and were then multiplied by the level-of-importance rank in column B, thus yielding the vendor scores, shown on the right side of each vendor's factor blocks (columns C through J).

Since the best-qualified vendor for a particular factor receives the highest number of points and the factors are weighted in order of importance, the higher scores usually indicate the better-qualified software solutions.

Example

Vendor 3 represents the lowest cost and therefore received a rating of 9 points and a score of 54 for the cost factor. However, vendor 3 did not provide appropriate solutions for software support and other factors. As a result, vendor 3 ranked least qualified for factors 2 through 6, and its total score is 74 points. This may be contrasted with vendor 6 who, although slightly more expensive, provided better software and service solutions and consequently received a total score of 122 points.

Scores resulting from this evaluation technique identify only approximate vendor achievement. Vendor 6, even though it has the highest total score, may not ultimately represent a workable solution because some of its software's features may, on closer examination, be unsuitable. In all cases vendor finalists selected through this technique must be further analyzed to identify any specific deficiencies. Then the practitioner reviews the deficiencies with members of management, who make the final selection.

Vendor-Evaluation Work Sheet

A	B	C	D	E	F	G	H	J
Selection Factors	Level of importance (Rank)	Vendor 1	Vendor 2	Vendor 3	Vendor 4	Vendor 5	Vendor 6	Vendor 7
1. Software Cost	Points 6 Score	2 / 12	4 / 24	9 / 54	1 / 6	5 / 30	8 / 48	3 / 18
2. Software Suitability Meeting your present needs Future flexibility	Points 5 Score	4 / 20	4 / 20	1 / 5	2 / 10	3 / 15	3 / 15	5 / 25
3. Software Service Location of support personnel Service reputation	Points 4 Score	4 / 16	4 / 16	1 / 4	2 / 8	5 / 20	6 / 24	3 / 12
4. Installation/technical Support Assisting during installation Ongoing support	Points 3 Score	3 / 9	3 / 9	2 / 6	2 / 6	5 / 15	5 / 15	4 / 12
5. Documentation Quality of documentation	Points 2 Score	8 / 16	3 / 6	2 / 4	3 / 6	5 / 10	5 / 10	4 / 8
6. Vendor Capability Comfort with the vendor	Points 1 Score	6 / 6	8 / 8	1 / 1	4 / 4	2 / 2	10 / 10	9 / 9
7.								
8.								
TOTAL	210	79	83	74	40	92	122	84

Exhibit 43A-3

Sample Vendor-Reference Work Sheet

Type of software (include vendor's name)		
Company		
Address		
Phone Number	Person contacted	Title

Instructions: Rate the system and vendor on a scale of 0 to 4.
0 = Unacceptable 1 = Poor 2 = Average 3 = Good 4 = Excellent

Factor	Rating	Comments
1. Ease of Installation		How easy was it to actually get the system installation working?
2. Ease of Use		Can people be trained to use it quickly? How long does it take?
3. Reliability of Software		Does the software have any limitations or "bugs"?
4. Documentation Content/Quality		Is it easy to look things up and correct problems by using the documentation the vendor supplies?
5. Technical Support		Has the vendor or program author been helpful?
6. Performance Fulfillment		Does the system run as well and as fast as you expected it would?
7. Response to Software Trouble Calls		How long does it take the vendor to correct a software problem?
8. Training by Vendor		How helpful was the vendor and/or documentation in training people to use the system?
9. Average Rating (to be calculated by client after reference check)		

What is the best thing about this software package? ______________________________

____

____

____

What is the worst thing about this software package? ______________________________

____

____

____

Would you buy this software package again? Yes ____________ No ____________

FOR OFFICE USE ONLY

Date checked	Client
Check reviewed by	Title

Exhibit 43A-4

Sample Interest Letter

[*CPA Firm's Letterhead*]

Date

Source Company's Name
Address
City, State, Zip Code

Gentlemen:

We are attempting to locate application software for a (location) client. The client is a (description of client's business) and currently has a (name of manufacturer), model ______________________ computer system running ______________________ and ______________________ languages in a (name of operating system language) operating system environment. In addition to the normal accounting applications of accounts receivable, accounts payable, payroll, and general ledger, the client is interested in automating his inventory control system, which should interface or be a part of the normal accounting applications.

If you can provide a software package or are aware of existing programs specifically designed to perform this function, please complete the enclosed Vendor Information Form and return it to us in the postage-paid envelope. We appreciate your attention to this request and look forward to hearing from you.

Cordially,

____

[*Signer's Name*]

[*Title*]

Exhibit 43A-4.1

Vendor Information Form

Firm Name ______________________________
Address ______________________________ Phone ______________
City, State, Zip Code ______________________________
Name of Contact ______________________ Title ______________________

The following integrated application packages can be provided:

Application	*Yes*	*No*	*Number of Installations*	*Programming Language*	*Approximate Cost*
Order Entry	____	____	________	________	$________
Billing	____	____	________	________	________
Accounts Receivable	____	____	________	________	________
Inventory Control	____	____	________	________	________
Payroll	____	____	________	________	________
Accounts Payable	____	____	________	________	________
General Ledger	____	____	________	________	________
Fixed Assets	____	____	________	________	________
(Other) ________			________	________	________
(Other) ________			________	________	________
Total					$________

These packages run on a (name) computer, model______________________________,
manufactured by ______________________________ in (location).
The manufacturer's names for peripherals and subsystems used on this system are as follows:

Device	*Manufacturer*	*Capacity*
Central Processor	________________	________________KB
Disk	________________	________________MB
Line Printer	________________	________________LPM
CRTs	________________	________________Characters
Terminal Printers	________________	________________CPS
Other ________	________________	________________

The name of this product is ______________________________.
Are you an OEM or distributor of this product? ______ Yes ______ No
Do you supply installation support? ______ Yes ______ No
Do you supply ongoing programming and technical support? ______ Yes ______ No

(continued)

Vendor Information Form ***(continued)***

The software support center in proximity to our client is located at ______________________________
and is staffed by ____________________ people, as follows:

_______ Sales   _______ Installation Technicians   ______ Programmer/Analysts
_______ All Other Areas   _______ Total
Comments ____
Completed by ____________________________ Date ______________________________

Exhibit 43A-5

Software Contract Negotiations Checklist

The checklist that follows includes matters that the practitioner may wish to advise a client about when assisting in software contract negotiations. It might also be useful in determining areas where the client's attorney could benefit from the practitioner's technical assistance.

Since each engagement is unique, this list does not include all matters that could be considered, nor will all that are listed apply to every engagement. A practitioner may wish to prepare a checklist tailored to a specific engagement as an early step in the negotiating process.

In every engagement it is important to retain any documents containing information that may be included in the contract, such as—

- Vendor correspondence. ________
- Vendor literature and advertising. ________
- Notes of meetings between vendor and client. ________
- Materials from vendor demonstrations, such as output reports. ________
- Systems specifications. ________
- Other vendor representations. ________

Checklist

Terms of Agreement

- Initial terms ________
- Renewals ________

Deliverables

- Programs ________
- Modifications ________
- Custom programming ________
- Documentation ________
- Training ________
- Enhancements and updates ________
- Continuing support ________

Delivery

- Timetable ________
- Delays (They will be considered to constitute default.) ________
- Price reduction or penalty for delays ________
- Trial period ________

Acceptance Criteria

- Thorough test data ________
- Performance tests ________
- Reliability tests ________
- Throughput ________
- Run time ________
- Computer resources required ________
- Efficiency ________
- Standards of continuing performance ________
- Acceptance period ________

Use and Ownership of Software

- Unlimited use ________
- Upgrades and portability of software for client's future use ________
- Ownership of software customized to client's specifications ________
- Ownership of modifications ________
- Effect of refusal of future modifications if unacceptable ________

Source Programs

- Access by client to source programs ________
- Source program documentation in escrow ________

Training

- All appropriate education required by client to successfully implement and operate system ________
- Period of time that training will be available ________
- Location ________
- Costs ________
- Curriculum ________

Warranties of Vendor

- Suitability of software for client's requirements ________
- Capacity to handle stated volume of transactions ________
- Capacity of system to accommodate growth ________
- Ownership of software ________
- Vendor's right to license software ________
- Assurances regarding infringement ________
- Period of time vendor will keep software operational ________
- Correction of malfunctions ________
- Equipment configuration required for software ________
- Vendor's commitment to software maintenance ________
- Guarantee of support availability ________

Client's (Acquirer's) Rights and Safeguards

- Right to reproduce documentation ________
- Right to disclose software to others ________
- Right to rescind agreement at any time prior to acceptance of the system ________
- Right to transfer software with sale of computer ________
- Right to modify software ________
- Right to merge software into other program material ________
- Right of assignment ________
- Product liability insurance ________
- Performance bond ________

Confidentiality

- Client data ________
- Client's business methods and trade secrets ________

Infringement Provisions

- Vendor defends any suit brought against client ________
- Vendor pays costs and damages ________
- Vendor replaces infringing software ________
- Vendor indemnifies client for loss ________

Events Constituting Default

- Failure to deliver ________
- Failure of software to perform according to specifications ________
- Unreliability of software ________
- Failure of vendor to correct malfunctions within an agreed-on time period ________
- Failure of vendor to provide support services ________
- Bankruptcy of vendor ________

Default and Malfunction Remedies

- Termination of agreement ________
- Recovery of damages for costs incurred ________
- Liquidation of damages ________
- Refund of money paid and costs incurred ________
- Replacement of software by vendor ________
- Repair of software by vendor ________
- Payment by vendor for cost of repairing or replacing software by others ________
- Downtime credits ________
- Backup facility in the event of malfunction ________
- Time to correct malfunctions, which extends the warranty period ________

Price

- Fixed cost ________
- Time and material costs ________
- Renewal cost ________
- Other charges ________
- Quantity discounts for multiple installations ________
- Price protection for future enhancements and support ________
- Pass through of future price reductions ________
- Lease payments applied to purchase ________

Payments

- Fixed dates ________
- Progress payments based on defined acceptance criteria ________
- Credit for delays ________
- Refund of money if agreed-on situation occurs ________
- Holdback ________
- Periodic payments and royalties ________
- Maintenance fees ________

Taxes

- Liability for taxes ________
- Tax credits ________

Client-Vendor Relationship

- Vendor's status (independent contractor, not employee of client) ________
- Prohibition against assignment by vendor ________
- Prohibition against subcontracting by vendor without client's consent ________
- Continuity during dispute ________
- Personnel recruitment policy (each other's employees) ________
- Use of client's resources by vendor ________

Other Considerations

- Free trials or demonstrations ________
- Compensation for assisting vendor in developing or testing software ________
- Publicity and endorsements ________
- Arbitration ________
- Termination procedures ________
- Inclusion of all side agreements in contract ________

APPENDIX 43/B

COMPARISON BETWEEN PACKAGED SOFTWARE SELECTION AND MICROCOMPUTER SYSTEM (SOFTWARE AND HARDWARE) SELECTION

	Packaged Software Selection		*Microcomputer System Selection**		
Activity	***Standard Activity***	***Performed by***	***Standard Activity***	***Performed by***	***Comments***
1. Define requirements	Yes	Practitioner	Yes	Client	The practitioner may request the client to complete an analysis questionnaire to obtain sufficient information regarding (1) the primary features of present systems within the client's business and (2) key-transaction volumes for the applications that will be automated. The features itemized on the questionnaire are then combined with features that may be desired but do not presently exist in the client's application system.
2. Identify alternatives	Yes	Practitioner	Yes	Client and/or practitioner	Sources of packaged software can be located through published microcomputer directories, data processing industry publications, and client industry publications. The business sections of local telephone directories may also offer potential sources of hardware and/or software. Once several sources of packaged software have been located, attention can be turned to— • Type of software (UNIX, CP/M, MP/M, DOS, etc.).

(continued)

* In selecting software the hardware is to be a microcomputer, the relatively low cost of the hardware may make the choice of software more important. Therefore, the hardware selection may be based on the software selection, with the hardware and software acquired as a unit.

Comparison Between Packaged Software Selection and Microcomputer System (Software and Hardware) Selection *(continued)*

Activity	Packaged Software Selection: Standard Activity	Packaged Software Selection: Performed by	Microcomputer System Selection: Standard Activity	Microcomputer System Selection: Performed by	Comments
					• Language (Basic, Pascal, etc.). • Microcomputer (microprocessor). This analysis would yield a list of potential suppliers of hardware and software and would indicate any constraint relating to the software and languages.
3. Identify unique requirements	Yes	Practitioner	Yes	Practitioner	The practitioner is involved in identifying application areas and features that are normally missing from packaged program products. The client should be aware of these specialized requirements and will eventually decide whether to modify the selected software, change procedures within the organization to fit the packaged programs, or develop custom software to meet the requirements.
4. Estimate resource requirements and costs	Yes	Practitioner	Yes	Practitioner	Based on the current and future key-transaction volumes for the applications to be automated, the practitioner can estimate the capacities and speeds of various microcomputer components and peripherals that will be required.
5. Develop preliminary conclusions and recommendations	Yes	Practitioner	Yes	Practitioner	A general range of costs can be determined and discussed with the client. Packaged software availability and potential areas of program modification could also be discussed. Generally, no formal document is delivered at this time.

6. Develop selection factors	Yes	Practitioner	Yes	Client and/or practitioner	Generally this is not a formal activity, but rather a result of conversations regarding the client's buying motives. The practitioner could provide the client with a sample list of common selection factors to be ranked and used during the evaluation process.
7. Develop a request for proposals (RFP)	Yes	Practitioner	No	—	This activity is normally not performed during the microcomputer evaluation-and-selection process.
8. Submit RFP to vendors	Yes	Practitioner	No	—	This activity is normally not performed during the microcomputer evaluation-and-selection process. However, the client needs to obtain detailed information describing the capabilities of the alternative hardware and software. This can be accomplished by either a telephone request or a visit to the vendor's site to obtain copies of hardware/software literature, reference manuals, or other printed materials. The client also requests formal price quotations for hardware, software, and other relevant costs.
9. Review and evaluate vendor proposals	Yes	Practitioner	Yes	Client	The client uses its original requirements list (activity 1) and the information contained in the vendor-supplied documentation to prepare a comparison of software packages. Hardware requirements and expansion capabilities as well as one-time and recurring costs can also be compared. The sample vendor-reference work sheet (exhibit 43A-3) can be followed for those references supplied by the vendor and the sample vendor-evaluation work sheet (exhibit 43A-2) can be used to summarize the evaluation results.

(*continued*)

Comparison Between Packaged Software Selection and Microcomputer System (Software and Hardware) Selection ***(continued)***

Activity	Packaged Software Selection: Standard Activity	Packaged Software Selection: Performed by	Microcomputer System Selection: Standard Activity	Microcomputer System Selection: Performed by	Comments
10. Develop final conclusions and recommendations	Yes	Practitioner	Yes	Client and practitioner	The practitioner reviews the results of the client's evaluation of alternatives, identifies areas that may require further research, and offers advice on key issues. Additional comments regarding installation matters may be appropriate at this time.
11. Other considerations ● Arrangements	N/A	—	Yes	Practitioner	The practitioner clearly defines his or her role and the level of client involvement expected during the microcomputer selection process. A brief letter summarizing the scope objectives, time frame, staffing, fees, and deliverables may be beneficial in further developing the client's understanding of the process.
● Use of additional questionnaires and checklists					The practitioner is encouraged to develop questionnaires, checklists, and other structured tools to assist the client in defining his requirements and evaluating various alternatives. These tools will prove beneficial in guiding the client through the selection process and reducing practitioner time and related fees.

BIBLIOGRAPHY

Aver, Joseph, and Charles E. Harris. *Computer Contract Negotiations.* New York: Van Nostrand Reinhold, 1981.

Brandon, Richard H., and Sidney Segelstein. *Data Processing Contracts: Structure, Contents and Negotiation.* New York: Van Nostrand Reinhold, 1976.

Brown, P. J. *Software Portability.* New York: Cambridge University Press, 1977.

Buss, Martin D. J., and Elaine Herman. "Packaged Software: Purchase or Perish." *Financial Executive* 51 (January 1983): 26-31, 33.

Computer Law 1982: Acquiring Computer Goods and Services. 2 vols. New York: Practicing Law Institute, 1982.

Cortada, James W. *EDP Costs and Charges: Finance, Budgets and Cost Control in Data Processing.* Englewood Cliffs, N.J.: Prentice Hall, 1980.

Currie, Edward. "Match Software to Hardware Before You Invest in Microcomputers." *Information and Records Management* 16 (November 1982): 21-22.

Danahar, Frank. "Data Processing Software Contracts." *Journal of Systems Management* (August 1982): 8-12.

Data Decisions. "Applications Software Survey 1982." *Datamation* 28 (May 1982): 94-110.

_____. "End Users Rate Application Software." *Datamation* 29 (March 1983): 132-54.

_____. "Systems Software Survey." *Datamation* 28 (December 1982): 96-138.

"Directory of Sales and Marketing Applications Software." *Sales and Marketing Management* 129 (December 6, 1982): 59-61.

Dologite, Dorothy G. "Evaluating Packaged Software--Avoiding the Landmines." *Datamation* 20 (January 1982): 20-25, 49.

Dunn, Robert, and Richard Ullman. *Quality Assurance for Computer Software.* New York: McGraw Hill, 1981.

Edge, Christopher T. "Computer Agreements." *Accountancy Digest* (Autumn 1981): 1-36.

Executive Guide and Checklist for Computer Software Contracting. Rye, New York: Reymont, 1980.

Gardner, David W. "Vendors Offer a Wide Variety of Integrated Software Packages." *Dun's Business Monthly* 121 (June 1983): 117-18.

Giovinazzo, Vincent J., and John F. Nash. "Selecting Accounting Software Packages." *CPA Journal* 52 (October 1982): 40-42, 44-45.

Glass, Robert L. *Software Reliability Guidebook.* Englewood Cliffs, N.J.: Prentice-Hall, 1979.

Glass, Robert L., and Ronald A. Noiseux. *A Software Maintenance Guidebook.* Englewood Cliffs, N.J.: 1981.

Green, Gary I., and Earl A. Wilcox. "Find the Right Software Through Specifications." *Management Accounting* 63 (January 1982): 94-97, 100-02, 104, 108-10.

Johnson, Everett. "Key Objectives, Guidelines for Successful Computer Contract Negotiating." *Outlook* (December 1981): 36.

Levitan, Lawrence. "Getting the Most Out of Application Software Packages." *Infosystems* 28 (April 1981): 68, 70, 72.

Marricos, Patrice J. "Legal Factors Influencing Software Contracts." *Interpreter* (September 1982): 13-18.

Paul, Tom L. "Selecting and Installing Software Packages." *Cost and Management* 56 (July-August 1982): 112, 114, 116.

Protecting, Acquiring and Marketing Computer Software for the Mass Market. New York: Law and Business, Inc./Harcourt Brace Jovanovich, 1982.

Sanders, Larry G., Paul Munter, and Ronald E. Reed. "Selecting a Software Package." *Financial Executive* 50 (September 1982): 38-40, 42, 44, 46.

Software Contracts. New York: International Publications Service, 1980.

Tomme, Carol. "Software Encounters of the Fourth Kind." *Infosystems* 30 (February 1983): 28-54.

Vargo, Paul. "How to Minimize the Risk of Buying Inadequate Software." *Practical Accountant* 16 (March 1983): 53-56.

Zammit, Joseph P. "Computers, Software and the Law." *American Bar Association Journal* (August 1982): 970-72.

Zech, K. P. "Selecting the Right Software." (Practitioners Forum) *Journal of Accountancy* 152 (June 1982): 112, 114, 116.

44/100 SELECTING A TELECOMMUNICATIONS SYSTEM

CONTENTS

44/100 SELECTING A TELECOMMUNICATIONS SYSTEM

44/105 SCOPE OF THIS PRACTICE AID

.01 A telecommunications system is a critical element of a business. It determines how a business communicates with the outside world and within the organization. Telecommunications equipment and services have become more complicated and the telecommunications marketplace has become increasingly competitive since the divestiture of American Telephone & Telegraph (AT&T) in the 1980s. Consequently, small and medium-size firms are seeking assistance in selecting telecommunications systems. Many clients recognize that CPA practitioners possess the analytical skill and objectivity needed to select a telecommunications system.

.02 This practice aid is designed to help practitioners assist clients in selecting, negotiating contracts for, and installing telecommunications systems. It describes how practitioners can approach such an engagement. The telecommunications system discussed in this practice aid is called a *key* or *multiline* system. A key system is the smaller of two major office systems. It has between five and seventy-five telephone handsets connected to a host system. A key system usually is sold as a set package without many separate options. Many common business options, such as call forwarding and conference calling, are standard and do not allow for significant customization. Several key systems, however, are available. They vary in the features offered and in their expansion potential. The larger of the two major office systems is the private branch exchange (PBX). Selecting a PBX requires a different approach.

44/110 TYPICAL ENGAGEMENTS

.01 Typical engagement opportunities arise from some of the following client situations:

.02 *Business growth.* The expansion of business may result in a need to improve telecommunications system capabilities. The system is often the lifeline of a business. When it becomes overloaded, the system must be enhanced or replaced. Unlike many other automated business systems, telecommunications is expensive, as well as difficult to change. A business owner will change the telecommunications system only when absolutely necessary. However, expansion of the existing telecommunications system or the addition of a new system is the first thing a company should consider if a new division or branch office is opening.

.03 *System obsolescence.* A business's telecommunications system may become obsolescent and lack important features. An inadequate system can prevent a company from meeting its clients' needs and may add to the cost of providing customer service.

.04 *Excessive operation and maintenance costs.* Changes in technology have made it feasible for businesses to replace telecommunications systems installed several years ago with more efficient and less costly systems.

.05 *Facilities layout changes.* The telecommunications system is an integral part of an office layout. A change in office design often provides an opportunity for the client to rethink the telecommunications system.

44/115 ENGAGEMENT ACCEPTANCE CRITERIA

.01 Practitioners must decide whether the above-mentioned and other engagement opportunities warrant the use of firm resources. In addition to normal business concerns, practitioners also should consider their technical capabilities before accepting an engagement. Practitioners should be able to discuss with competency the issues associated with enhancing or installing a telecommunications system, as well as the options and alternatives available. As part of any consulting engagement, it is important to objectively evaluate the benefits and risks associated with different telecommunications systems and vendors. Practitioners need to update their technical skills and knowledge of systems constantly in order to recognize problems unique to the telecommunications industry and to communicate those problems to the appropriate parties.

44/120 ENGAGEMENT OBJECTIVES AND BENEFITS

.01 In general, the goal of a telecommunications consulting engagement is to assist the client in selecting, negotiating a contract for, and installing a cost-effective system. This may involve installing a new system or improving an existing system. To realize this goal, the practitioner develops a methodology and a work plan for accomplishing the following engagement objectives:

a. Analyze the current information regarding the existing system and available technology.

b. Assist the client in making a decision about upgrading or replacing the system.

c. Help the client select new equipment and vendors.

d. Assist in the installation, training, and postinstallation processes.

.02 Many key and multiline telecommunications systems produced after 1980 allow upgrades without radical overhauls of the system. The practitioner may be able to demonstrate how system enhancements can be more cost-effective than a new system. Before spending significant human and financial resources, the practitioner assesses whether the continued use of the system or the purchase of a new system is in the client's best interest.

.03 The practitioner analyzes telephone usage and may recommend methods of using telephones more productively. In this analysis, the practitioner considers not only equipment costs, but also maintenance costs. Since a telecommunications system is a long-term purchase, the practitioner lays out a growth pattern that meets not only the client's current needs, but also its future needs. The practitioner also determines methods of financing the purchase and depreciating the asset, explaining to the client the effects of the new telecommunications system on daily operations and on the company's long-term financial situation.

.04 If properly selected, a new or updated telecommunications system improves productivity. The practitioner may demonstrate to the client, for example, how the telecommunications system and its additional features can improve communications with customers. In addition to technical expertise, the practitioner provides information to the client on various nontechnical factors that often are an integral part of the purchase of a telecommunications system.

44/125 PRACTITIONER'S ROLE

.01 The practitioner may assume one to four roles during an engagement, depending on the scope of the project and the client's particular situation. These roles are information gatherer, selection coordinator, advisor, and implementor.

Information Gatherer

.02 In the role of information gatherer, the practitioner takes an inventory of the system and gathers information about operational procedures and the costs associated with the equipment and its use.

Selection Coordinator

.03 Considering the information gathered about operations and costs, the practitioner assists the client in selecting an appropriate system. This usually involves developing selection criteria and then reviewing each system candidate with due diligence.

Advisor

.04 The practitioner may help negotiate a contract and provide advice during the implementation of the telecommunications system. The practitioner does not serve as a legal advisor or a telephone installer, but instead ensures that the contract meets system and cost specifications.

Implementor

.05 The practitioner may assist the client by overseeing installation and training. In the role of implementor, the practitioner ensures that the system and the options that were contracted for are properly installed and that the staff is adequately trained.

44/130 ENGAGEMENT APPROACH

.01 After reaching an understanding with the client about the scope and conduct of the engagement, the practitioner evaluates the existing system and defines the client's system requirements. The practitioner may also select a system, negotiate a contract for it, monitor its installation, train personnel, and conduct a postinstallation review.

Reaching an Understanding With the Client

.02 To ensure a successful engagement when selecting a telecommunications system, both the client and the practitioner must develop an understanding of the scope and conduct of the project. After an initial meeting with the client, the practitioner summarizes the major points of the understanding in an engagement letter. The understanding covers the number and types of systems to be reviewed. The client needs to understand that the practitioner will not review all of the systems on the market, but only representative major systems that seem most appropriate to the client's situation.

.03 The telecommunications industry is constantly changing, and therefore new products and enhancements to existing products are always entering the market. Products or upgrades released at the end of the engagement should not alter the results of the evaluation unless a new product substantially improves or advances the system. To ensure that the system selected is not only technologically sound but also appropriate for the business environment, the practitioner defers judgment on a new product's reliability and effectiveness until it has a track record.

.04 Before undertaking an engagement, the practitioner provides the client with a general overview of the costs involved in acquiring and maintaining a system. The practitioner may need to explain to the client that an inexpensive system that meets all of the client's needs may be inappropriate because the vendor has a poor service record.

.05 The understanding with the client should explain in detail the specific phases and their costs, as they relate to the engagement. Many practitioners outline the engagement phases, indicating the time frames and the persons responsible for decision making and implementation. They also describe how they will communicate the progress of the engagement to enable the client to monitor the project.

.06 The following table illustrates the typical stages of a full-scope engagement to select a telecommunications system and the appropriate communication that the practitioner may use to summarize the results of that stage.

Table 44-1

Typical Stages and Appropriate Communications of a Full-Scope Telecommunications Engagement

Stage	*Communication*
Initial meeting	Engagement letter
Information gathering	Report of findings
Systems and vendors review	Preliminary report
Systems selection	List of selected systems
Purchase and implementation	Purchase comments and implementation plan
Installation and training	Summary of system status

.07 Before beginning an engagement, the practitioner also discusses with the client the expected benefits of the new system and the cost-benefit decisions required to select the best system.

.08 The practitioner summarizes all of the elements of the engagement understanding in a letter to the client. The engagement letter also describes the methodology used in selecting the system. If the engagement involves negotiating a contract or managing the installation of a system, the letter states that the practitioner will provide guidance, not legal advice. The practitioner may also wish to disclaim responsibility for any services other than consulting support, such as maintenance of the selected system. In addition, the letter may state that the client is responsible for informing the practitioner of any changes in its situation that would affect the selection of the system. Exhibit 44-1 of appendix 44 provides an illustrative engagement letter.

Evaluating the Existing System

.09 The first step of a telecommunications consulting engagement is to gather information to define the client's existing system. To facilitate this, the practitioner can use a documentation checklist, such as that provided in exhibit 44-2 of appendix 44. The practitioner gathers information about the three main components of a telecommunications system—the hardware, the telephone lines, and the users—to determine how each component affects the current operations, what it costs, and how changes in the system would affect operations and costs. The practitioner documents this information, which forms the foundation of the engagement.

.10 The practitioner seeks documentation from the client about the following system elements:

- *Hardware*: The number of handsets being used, the maximum number of handsets permitted on the system, the number of operator stations, and the features installed in the current unit and those available as an upgrade.

- *Lines*: The number and types of lines (such as telephone lines, fax lines, and modem lines) currently in use, and the maximum number and the types of lines permitted on the existing system.

- *Labor*: The number of operators and their skill levels, the skill levels of the telephone users, the number of hours specifically assigned to telephone functions, the current cost of the telephone staff (operators and message center staff), the predicted increases in telephone staff salaries, and the labor required for service during nonbusiness hours.

- *Operations*: The number of local and long-distance phone calls per hour, the average amount of time spent on each local and long-distance phone call, the average number of lines used at any one time, the peak usage, and other data on the general operations of the telecommunications system.

.11 While gathering information, the practitioner seeks to correlate telephone usage and cost. A system may require the user to perform many functions manually, thereby increasing costs in both real dollars and wasted time. For example, if a system lacks conference call capabilities, a salesperson may have to make two phone calls using two phones simultaneously and relaying information from one customer to another. An analysis of calling patterns can also lead to a justification for system changes or to enhancements that take advantage of least-cost routing.

.12 The practitioner reviews the existing system and its procedural manuals to assess whether the client is getting the most out of it or will need to modify or replace it. The practitioner also asks the existing hardware supplier whether upgrades are available and studies trade publications to see if third-party vendors provide compatible parts and upgrades.

.13 A major part of the information the practitioner gathers concerns how management and employees use the existing system and what improvements they would like. When gathering information from management and employees, the practitioner seeks responses that are as objective as possible. Often client personnel's opinions about a system are subjective. For example, a salesperson who inadvertently disconnected a client may think the system is poor. Client personnel also often exaggerate problems. For example, someone may say that the phone system is always going down when, in fact, the system may have gone down only for three hours after an electrical storm. Exhibit 44-3 of appendix 44 provides a sample questionnaire, which the practitioner will find helpful in eliciting objective responses from users.

.14 The practitioner also gathers information on features and options and their current and potential use through interviews and observation of the users. This observation is necessary because users often take for granted basic operations that may have a dramatic impact on the selection of the new system or enhancement. A sample checklist of system features is provided in exhibit 44-2.2 of appendix 44.

Defining System Requirements

.15 After assessing the existing system, the practitioner documents the findings and presents them to the client. The client reviews the information and tentatively decides whether to upgrade or enhance the system. The practitioner then discusses the benefits, including cost benefits, and drawbacks of each alternative with the client.

.16 Once the client decides to upgrade or purchase a telecommunications system, the practitioner transfers the information to a client's needs or system requirements document. This document assists the reviewers in understanding which components of the telecommunications system need to be addressed in detail and which are not essential to the system. The document is not a request for proposal. An RFP is unnecessary because most small telecommunications systems and system enhancements come as a complete package. Vendors do not customize them. The client's needs document provides the practitioner with a priority checklist to ensure that all of the valuable features and options are included in the telecommunications system selected.

.17 In the system requirements document, the practitioner outlines the basic system capabilities needed, including the number of lines for local and long-distance communications and the lines for special telecommunications and data communications, the number of handsets, and the maximum number of handsets the system may need. The document also lists the basic features to be included as part of the standard package and features that can be added with additional cost. The practitioner lists the costs of operating and supporting the system. Operating costs include basic line charges, long-distance line charges, monthly minimum charges if applicable, line charges for specialty services, and the costs of operator personnel, including salaries. The costs of supporting the system include, but are not limited to, the cost of service, anticipated maintenance, and additional equipment necessary to provide support.

.18 The document should also list additional changes forecast for the future. This would include the hardware and software modifications required by the growth of the company or the need to integrate the system with other functions, such as computer networking and electronic mail.

.19 In many engagements, the completion of this activity ends the first phase of an engagement. At this point, it is advisable for the practitioner to meet with the client to discuss the system or enhancement features and costs.

Selecting a System

.20 After defining the system requirements, the practitioner helps the client select the system. System selection depends on many considerations, which involve more than the hardware that actually powers the system. These considerations include the reliability of the vendor who supports the system and the cost of the system and its components. The weight of these considerations usually varies according to the client's location. In urban areas, for example, where several vendors sell the same telecommunications equipment, choosing the system before choosing the vendor is appropriate. In rural areas, however, where vendors usually are fewer, choosing the right vendor before choosing the system is appropriate. In either case, choosing the vendor and the support for the telecommunications system is as important as choosing the system.

.21 When selecting the system, the practitioner compares each of the features and system components with the system requirements that were defined. The practitioner determines whether the system meets such criteria as maintaining the number of handsets and incoming and outgoing lines to meet the company's current and expected needs. Since most companies cannot upgrade these basic components, the practitioner projects a sizeable growth of lines and handsets. A checklist of vendor telecommunications systems information is provided in exhibit 44-2.1 in appendix 44. Another criterion may be whether the system board can be upgraded or the basic cabinetry of the system has to change when additions to the system are made.

.22 The practitioner may also consider the following questions about the system hardware:

- What is covered in the manufacturer's warranty and for how long?
- Is the manufacturer committed to continuing this system's product line?
- How many times has this model been upgraded?
- What is the life cycle of this product?
- What is the company's record in dealing with discontinued models?
- Does the company itself or do local vendors provide technical support for the system?
- What are the system's basic features and can features be added?
- What are the power supply requirements of the telecommunications system?
- Is a backup power supply available?
- What is the mean time between failures? (This is a common method of measuring the durability of the system.)

- If new cabling or special cabling is required, what are the requirements for that cabling and can existing cabling be used wherever possible?

.23 The practitioner considers whether the vendor is an authorized dealer with good references, is knowledgeable about the hardware and the operations of the system, supports and instructs users on the system, and understands the manufacturer's commitment to the system and its product line. Before selecting a vendor, the practitioner checks with—

a. The vendor's references about installations of similar systems.

b. The Better Business Bureau or local chamber of commerce for any outstanding complaints.

c. The manufacturer to ascertain that the dealer is an authorized representative in good standing.

d. Appropriate agencies about whether the vendor meets union requirements for the premises where the system is to be installed and if the installer is properly licensed to do this type of work.

e. The vendor, if installation is involved, to ensure that it has the proper levels of general liability and workers' compensation insurance.

.24 Consideration of the overall service and support of the hardware involves getting answers to the following questions:

a. Who provides the support and when are they available?

b. Who is responsible for basic field maintenance?

c. Does the company provide a toll-free hot line for nonmaintenance questions?

d. What are the annual support costs?

e. What type of maintenance contract is available?

f. What parts does the company maintain in inventory?

g. Does the company supply loaner equipment in the event of a serious equipment failure?

h. What is the support company's past track record in dealing with both minor and major problems (including a review of guaranteed response time)?

Exhibit 44-2.3 of appendix 44 provides a checklist that practitioners may find useful for reviewing vendors' qualifications and system-support capabilities.

Negotiating the Contract

.25 More than many other types of office equipment, a telecommunications system is crucial to a business's operations. Replacing faulty technology is usually less costly than replacing the bad will that a defective system may cause. When defective equipment interrupts or degrades service, the client needs to know who is responsible for correcting the problem. A properly negotiated contract states the responsibilities of all involved parties concerning the special needs of telecommunications systems. In assisting the client in contract negotiations, the practitioner helps clarify difficult points of interpretation concerning the performance of the telecommunications system. For example, the practitioner may help clarify what is meant by the term *up and running*. The vendor may mean that all the hardware and software parts are functioning properly. However, the practitioner may point out to the client that if the company's personnel are not trained properly, the system may still not be *up and running*. The client may need assistance in negotiating not only for the initial purchase of the hardware but also for add-ons and other peripherals and telephone support. Often, peripherals and support cost significantly more than the telecommunications hardware itself.

.26 Although not offering legal expertise, the practitioner educates the client about the proper uses of the system, its limitations, its potential pitfalls, and its upkeep to ensure that the contract addresses these issues. For example, most systems need a battery backup. The practitioner may need to demonstrate the ramifications of a system's being down even when the vendor insists that the system will never go down. The practitioner suggests that the client have its attorney review the contract to ensure that all of the understandings and additional requirements are drafted properly. By ensuring that the contract covers all critical issues, the practitioner helps the client have greater confidence that the system will operate properly on a long-term basis.

.27 The contract needs to cover the costs of the system, the installation and maintenance responsibilities of the vendor, and the training provided.

.28 **Costs.** The contract states the initial and the long-term costs. These include installation and service charges and the cost of add-ons and other features. The contract also provides a schedule of payments and defines the benchmarks to be achieved before the client makes payment.

.29 **Vendor's Installation and Maintenance Responsibilities.** The contract specifies the delivery dates and penalties, defines key terms such as *operating in normal business style*, and describes the product and service warranties and owners' rights. The contract needs to indicate who is responsible for cutting over to the local phone company, for connecting to the long-distance carrier, and for maintaining the lines.

.30 **Training.** The contract documents the arrangements for training users on the system. This includes a clear definition of the level of training to be achieved. For example, if the contract states that users will be *fully trained and proficient*, these terms need to be defined.

.31 The practitioner will find it helpful to use exhibit 44-2.4 of appendix 44, which is an illustrative checklist for negotiating contracts, and to review section 43/150, "Software Contract Negotiations." Much of the guidance about assisting clients in negotiating contracts for software covered in that section also applies to negotiating contracts for telecommunications systems.

Monitoring the System Installation

.32 The practitioner ensures that the system installation complies with the contract and follows both the installation plan and timetable. Although not directly responsible for the actual wiring and placement of telephone handsets, the practitioner plays an integral role in this part of the installation. The client will be satisfied only when all parts of the telecommunications system are operating properly. Many systems that operated properly in the vendor's office may not be correctly installed at the client site. If this happens, the client will be dissatisfied with the entire process. By helping to supervise the installation, the practitioner provides guidance about the purpose of the system and reduces the possibility of postpurchase anxiety.

.33 The practitioner carefully monitors these events:

a. Physical placement of the main key system, the handsets, and the lines, ensuring that they comply with fire and building codes

b. The loading of the software

c. The cut-over of the local and long-distance lines

d. The coding of system parts to ensure quick and easy identification and replacement

e. Tests of the battery backup system, the lines, the handsets, and any special communications equipment on the existing lines

An illustrative checklist for monitoring a telecommunications system installation (exhibit 44-2.5) is included in appendix 44.

Training Personnel

.34 After the system is installed, training personnel to use it is the last step in making it operational. A sophisticated system with good vendor support is useless unless personnel know how to use it. The practitioner's role is not to train the users, but to oversee their training, ensuring that they understand all of the features so they can use the system effectively. The training needs to include a full explanation, followed by a hands-on review, of the system and its features, and a lesson in troubleshooting in the case of equipment failure. In addition, the users need to receive a detailed manual on how to use the different parts of the system and a number to call in case questions arise after the training session. A sample checklist for personnel training, exhibit 44-2.6, is included in appendix 44.

Conducting a Postinstallation Review

.35 The practitioner arranges to review the installation to ensure that the system is working as expected. The practitioner may want to establish the guidelines for the postinstallation review while the system is being installed. This will allow close review of the more complicated points of the installation.

.36 The postinstallation review involves assessing how the installation complies with the contract terms, scrutinizing the hardware, and analyzing the costs of operating the system, including local and long-distance charges. The practitioner also observes users using the system, evaluates personnel training, and meets with key personnel to elicit opinions and correct any problems.

44/135 ENGAGEMENT OUTPUT

.01 The primary output of a consulting engagement in telecommunications is the successful installation of a system or option or an evaluation of service. However, as the engagement progresses, the practitioner needs to supply the client with a written report of the results of the different tasks, comparing them with the engagement objectives. The following documents are typical outputs of a telecommunications engagement:

.02 *Report of findings and recommendations.* The practitioner reports the findings regarding the telecommunications system and explains in detail the rationale of the recommendations. The report also explains what functions the practitioner did not recommend and what problems may arise because these features are unavailable. The practitioner outlines the decisions that were made and how they were reported to the client.

.03 *Implementation plan.* The implementation plan describes how the system is to be installed and what is required. It includes a timetable and a list of the parties involved and their responsibilities.

.04 *Responsibilities assignments.* The practitioner lists the persons involved in operating and maintaining the installed system, along with their responsibilities.

.05 *Procedures manual.* The practitioner develops a manual instructing users about the telecommunications system and its features. It should incorporate the manufacturer's or vendor's manual, which may need to be adapted to the client's needs. This is especially needed for peripherals to the main telecommunications system, such as call accounting and voice message systems.

.06 *Cost analysis reporting.* The practitioner develops a method of analyzing the costs of telecommunications system usage. A possible follow-on engagement to the installation of a telecommunications system is an engagement to show the client how the system is performing and how to fine-tune the system to improve efficiency. This would include setting up a way of measuring and tracking phone usage costs for the client.

.07 One of the more common cost-analysis methods is called call accounting. Often a separate hardware device or software program, call accounting identifies each outgoing call with a specific client or function by requiring user input of numerical client or function codes. Frequently, professional firms interested in accounting for client costs use this cost-analysis tool. Often, this component is integrated with compatible time-and-billing software systems that allow charges to be posted directly to client accounts. Manufacturing firms are also finding that a device that analyzes calls made to client locations and on behalf of client business allows the firm to get a better picture of the total costs related to maintaining a client.

44/140 MARKETING TELECOMMUNICATIONS SERVICES

.01 To market telecommunications consulting services, practitioners use the same approach they would use to market other technology consulting services. Effective marketers know both their market and the skills necessary to perform the required tasks. Practitioners who successfully market this service usually concentrate on two targets: (*a*) clients who already have confidence in their services in telecommunications and related functions, and (*b*) those whom they have served in other areas but who are unaware of their telecommunications consulting skills. To convince clients that they are the right choice for a telecommunications engagement, practitioners present this skill as only one facet of their entire service package to the client. Clients satisfied with prior work feel that this skill is a normal extension of service.

.02 When designing a marketing plan, practitioners should expect to use the marketing tactics they are most comfortable with in their general practice development. Practitioners who have never used direct mail marketing, for example, would probably be unsuccessful if they introduced telecommunications services at the same time they introduced this marketing approach.

.03 A marketing plan requires selecting target markets. Typically, practitioners use objective criteria to select potential clients. For example, they may ask themselves these questions about current clients: Is the company growing, and will it outgrow its present telecommunications system? Has its telecommunications system been an impediment to the proper conduct of business? When we provided other technology consulting services, did we observe that the telecommunications system also needed to be upgraded?

.04 After the selection of a target market, the next step is to introduce the service. This may be done in the following ways:

a. A proposal letter introducing the service and asking clients to respond to arrange a discussion.

b. A seminar presentation on phone service and systems to several clients.

c. A talk on telecommunications systems before a local trade association.

d. A free survey of clients' existing systems along with a brief summary of their strengths and weaknesses.

.05 After introducing the firm's capability in telephone consulting to existing and prospective clients, the practitioner's next step is to sell the benefits of an engagement. The practitioner may wish to tell the client that telecommunications consulting skills are part of a range of services. Consequently, the practitioner's firm can bring to telecommunications consulting the same skills it brings to all consultations and engagements. The practitioner also points out that the firm has the following skills, knowledge, and experience that vendors do not have:

a. An understanding of the client's operations and its telecommunications needs based on continual service.

b. Accounting expertise that ensures a cost-justified approach to selecting and installing a telecommunications system.

c. Systems and controls experience that allows the practitioner to provide this service methodically and objectively.

d. A life-cycle orientation in analyzing benefits and costs as opposed to the vendor's primary goal to sell to and oblige the customer.

e. Complete objectivity in conducting the evaluation and making recommendations, which is necessary to evaluate systems without bias and provide the client with a proper report.

.06 During discussions, the client learns which services are available and why the practitioner's firm is the best candidate to provide them. The final step in selling an engagement is formally outlining the engagement understanding in a letter. (Exhibit 44-1 of appendix 44 is a sample letter for a telecommunications project.)

APPENDIX 44

SAMPLE FORMS AND LETTERS

Exhibit 44-1

Letter for a Telecommunications Engagement[1]

CPA & Company
123 Main Street
Anytown, USA 10000

Mr. William Morris
The Morris Agency
500 Madison Avenue
Anytown, USA 10000

Dear Mr. Morris:

This letter confirms our arrangement to assist you in the selection and implementation of a new telecommunications system for The Morris Agency.

Our engagement will consist of the following:

1. We will define the requirements of your company for a telecommunications system. This will involve our reviewing and documenting your existing system and preparing a report that describes the features The Morris Agency needs to maintain effective telecommunications.

2. After you have reviewed our report and we have agreed on the features required by your company, we will review appropriate telecommunications systems and vendors. From these, we will select for your review the systems and vendors that offer the best value in telecommunications equipment and vendor performance.

3. After you decide on the telecommunications system and vendor, we will assist you in negotiating purchase, installation, and support contracts. Our assistance will include evaluating the different methods of purchase and advising you about which technical items to include in the purchase and support contracts and about the conduct of the installation. We will advise, not as lawyers, but as telecommunications systems consultants.

4. We will assist in the implementation of the telecommunications system. As your representative, we will monitor the implementation to ensure that it complies with our established plan.

Our role in this engagement will be to advise management by presenting our findings and recommendations. Management, however, will be responsible for making the final decisions.

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[1] For more information on writing engagement letters, see section 3/100, "Consulting Process."

Management is also responsible for ensuring that the information presented about your company and its telecommunications system requirements is accurate and up-to-date.

We will present our findings in four parts:

1. Basic system specifications

2. Recommended telecommunications systems and vendors

3. Contract analysis and recommendations

4. Implementation plan

We would like to review each part with management when we present it. This will allow management to monitor the engagement's progress and will ensure selection of the telecommunications system and implementation path appropriate for The Morris Company.

We will be responsible for recommending the proper telecommunications equipment and vendor to service the equipment. We will not be responsible for repairing and maintaining the hardware. However, we will advise you on appropriate measures to take to ensure the upkeep of the equipment.

Our fees are based on our standard hourly rates and are payable on receipt.

We are pleased to offer this service to you and look forward to working with you in selecting a telecommunications system. Please signify your acceptance of these terms by signing and returning one copy of this letter to us.

Sincerely,

____

Felix Apc
CPA & Company

Accepted :

____

William Morris
The Morris Agency

Date : ________________________

Exhibit 44-2

Existing Telecommunications System Information Checklist

Hardware

Number of handsets in current use	__________
Maximum number of handsets	__________
Number of operator stations in use	__________
Maximum number of operator stations	__________
Size of system console	__________

Telephone Lines

Current number of all lines	__________
Number of local lines	__________
Number of long-distance lines	__________
Number of specialty lines	__________

Maximum Capacity

Number of all lines	__________
Number of local lines	__________
Number of long-distance lines	__________
Number of specialty lines	__________
WATS	__________
Multiplexer/data lines	__________
Alarm lines	__________

Local Telephone Usage

Average number of phone calls per month	__________
Largest volume of phone calls per month	__________
Basic monthly service charge	__________
Average monthly service charge	__________

Long-Distance Telephone Usage

Average number of phone calls per month	__________
Largest volume of phone calls per month	__________
Basic monthly service charge	__________
Average monthly service charge	__________

(*continued*)

Existing Telecommunications System Information Checklist (*continued*)

Operations

Daily business hours	__________
Amount of use after daily business hours	__________
Number of modems used	__________
Number of fax machines used	__________

Cost

Basic hardware system	__________
Basic software system	__________
Additional features	__________
Installation	__________
Training	__________

Exhibit 44-2.1

Checklist of Vendor Telecommunications Systems Information

Name of Vendor System ______________________________

Hardware

Maximum number of handsets	________
Maximum number of operator stations	________
Size of system console	________

Telephone Lines

Maximum number of all lines	________
Maximum number of local lines	________
Maximum number of long-distance lines	________
Maximum number of specialty lines	________

Phone Charges

Local monthly service charge	________
Long-distance monthly service charge	________

Cost

Basic hardware system	________
Basic software system	________
Additional features aggregate	________
Total cost	________
Installation	________
Training	________

Exhibit 44-2.2

Checklist of Telecommunications Systems Features

	Required by Client	*In Current Basic System*	*Current System Enhancement Cost*	*In Vendor's Basic System*	*Vendor System Enhancement Cost*
Automatic attendant					
Automatic callback					
Battery backup					
Call pickup directed					
Call hold					
Call identification					
Call forwarding					
Call accounting					
Call pickup group					
Computer workstations lines					
Conference calling					
Data communications					
Direct department calling					
Discriminating ringing					
Do-not-disturb					
DTMF/DP telephones					
High-cost signal					

	Required by Client	*In Current Basic System*	*Current System Enhancement Cost*	*In Vendor's Basic System*	*Vendor System Enhancement Cost*
Hunt groups					
Intercom capabilities					
Least-cost routing					
Lighted line indicators/LCD					
Loudspeaker paging systems					
Meet-me page					
Music-message hold					
Night class of service					
Third-party conference calling					
Toll blocking					
Voice mail					

Exhibit 44-2.3

Checklist of Vendor Qualifications and System Support

Vendor Qualifications

Address of vendor servicing your phone system

____

____

Additional locations ____

	Servicing Location	*Nationally*
Number of staff	______	______
Service professionals	______	______
Customer support	______	______

How long has the dealer handled the telecommunications hardware?

____

Is the dealer an authorized dealer? (Demonstrate proof of authorized dealer status.)

____

What is the dealer's current financial position? (Include a copy of the dealer's financial report.)

____

System Support	*Yes*	*No*	*Comments*
Does the dealer stock parts for the system?	______	______	______________________________
Does the dealer sell other systems, and, if so, why did the dealer recommend this system?	______	______	______________________________
Does the dealer maintain a support or training staff?	______	______	______________________________
Are there other dealers in the area that support the system? (List other dealers.)	______	______	______________________________
What are the annual support costs? (These should be broken down by the components of the system.)			
Year 1	______	______	______________________________
Year 2	______	______	______________________________
Year 3	______	______	______________________________
Year 4	______	______	______________________________
Year 5	______	______	______________________________

During daily, weekend, and holiday periods what hours does the vendor support the system and what are the guaranteed technician response times?

	Hours	*Response Time*
Daily	________________	________________
Weekend	________________	________________
Holiday	________________	________________

What is the vendor's policy regarding replacement parts?

Who maintains the field-level support?

Are there software components of the system? If so, how often are they updated, and who is responsible for updating the software?

If the software requires updates (as in the case of tariff adjustments), who is responsible for system software updates?

Exhibit 44-2.4

Checklist for Contract Negotiations

	Yes	*No*	*Comments*
Are the following items included in the detailed contract?			
Hardware, hardware features, software, installation, and training cost of the initial system	______	______	____________________
Provisions for partial payment to be withheld until 15 days after full customer satisfaction with the installation of the system	______	______	____________________
Warranties including service commitments. Describe.	______	______	____________________
Support of the system and specific turnaround time for emergency repairs	______	______	____________________
Hourly rates and service call charges in detail for a 12-month period with provisions for increases limited to the consumer price index	______	______	____________________
A guarantee from the vendor that as of the date of installation, the system is eligible for business rather than trunk line rates from the local telephone company	______	______	____________________
A provision that no more than 1/3 of the payment be made before system cut-over and that the vendor provide a lien release from the manufacturer	______	______	____________________

(*continued*)

Checklist for Contract Negotiations (*continued*)

	Yes	*No*	*Comments*
Assignment of specific responsibilities for local and long distance carriers during cut-over	______	______	____________________
Is a copy of the vendor's financial statement available? (Smaller vendors should also include a personal guarantee for the viability of the system.)	______	______	____________________

Exhibit 44-2.5

Checklist for Monitoring a Telecommunications System Installation

	Yes	*No*	*Comments*
Are the following work steps included in the cut-over of the telecommunications system?			
Is the old phone number going to be in use? If not, will the telephone company notify people of the new number and for what period of time?	______	______	____________________
If the new system fails to perform properly upon installation, is there a contingency plan to maintain communications?	______	______	____________________
Are both the phone company and the long-distance carrier aware of the cut-over date and have they made proper line arrangements?	______	______	____________________
Has the system been properly "burned in" and tested before installation?	______	______	____________________

Exhibit 44-2.6

Checklist for Personnel Training

	Yes	*No*	*Comments*
Have the operators been properly trained on the new console?	______	______	____________________
Have the operators been given a course by the vendor or system personnel on the operations of the unit?	______	______	____________________
Have the staff been given a training course on the features of their handsets?	______	______	____________________
Are operator manuals available to all users on the system?	______	______	____________________

Exhibit 44-3

Telephone User's Questionnaire

The telephone questionnaire is an excellent tool for determining management and staff's use of the existing telecommunications system. Before distributing an instruction sheet, the practitioner explains the appropriate terms to use in answering the questionnaire. For example, the practitioner may explain that respondents are to complete the statement "The distribution of outgoing calls is . . ." in total minutes, not total number of calls. The practitioner also tells users to describe their actual calling practices rather than projected calling practices. Not only does this help determine whether a new system is warranted, but also may alert users to features of their existing system that they do not use or are unaware of.

1. Name ____
2. Position ____
3. Department ____
4. Location ____
5. The phone calls I make are usually

	Local	*Long Distance*
a. Long (more than 10 minutes)	_____ %	_____ %
b. Medium (between 2 and 10 minutes)	_____ %	_____ %
c. Short (less than 2 minutes)	_____ %	_____ %

6. The distribution of minutes of outgoing calls is
   a. Local calls _______________ %
   b. Long-distance calls _______________ %
7. I call mainly
   a. During the entire day _______
   b. In the morning _______
   c. In the afternoon _______
   d. After normal business hours _______

(*continued*)

Telephone User's Questionnaire (*continued*)

8. I place the calls

   a. Myself ______

   b. With the aid of support staff ______

9. The distribution of minutes of incoming calls is

   a. Local calls ______________ %

   b. Long-distance calls ______________ %

10. I would use the features listed below:

	In the normal course of business	*Rarely*	*Not at all*
Automatic attendant	[ ]	[ ]	[ ]
Automatic callback	[ ]	[ ]	[ ]
Call forwarding	[ ]	[ ]	[ ]
Call hold	[ ]	[ ]	[ ]
Call identification	[ ]	[ ]	[ ]
Call pickup group	[ ]	[ ]	[ ]
Computer workstation lines	[ ]	[ ]	[ ]
Conference calling	[ ]	[ ]	[ ]
Data communications	[ ]	[ ]	[ ]
Direct department calling	[ ]	[ ]	[ ]
Do-not-disturb	[ ]	[ ]	[ ]
Intercom capabilities	[ ]	[ ]	[ ]
Lighted line indicators	[ ]	[ ]	[ ]
Loudspeaker paging systems	[ ]	[ ]	[ ]
Meet-me page	[ ]	[ ]	[ ]
Speaker phones	[ ]	[ ]	[ ]
Third-party conference calling	[ ]	[ ]	[ ]
Toll blocking	[ ]	[ ]	[ ]
Voice mail	[ ]	[ ]	[ ]

General Comments

GLOSSARY

The following list of common terms in the telecommunications industry is not comprehensive. The practitioner will find additional reference materials in the bibliography of this practice aid.

attendant-related features The features available only to the consoles attached to the system.

automatic attendant A feature that allows an automatic device to answer a call.

automatic callback A feature that allows a caller who gets a busy signal from another station to call back automatically when the line becomes free.

battery backup A device that allows the telecommunications system to operate normally in the event of a power outage.

call coverage A feature that allows the station user to determine where and under what conditions to send calls from one station to another. This is also known as *call forwarding*.

call hold A feature that allows a user to put a call on hold.

call identification The system automatically identifies the caller. It may identify internal calls by caller name or extension number and outside lines by registering the caller's number or the words *outside line*.

call pickup directed A feature that allows a station to answer a ringing phone that was not directed to it.

call pickup group A group of stations, any one of which can answer incoming calls that are directed to any station in the group.

Centrex A leased service provided by the local telephone company that gives customers the use of an allocated portion of the central office station of the telephone company.

class of service A class of service defines the conditions, rates, and quality of the phone line and usage. Up to 255 classes of telephone service are available.

computer workstation lines A feature allowing users to link computer workstations to the telecommunications system.

conference calling A feature that allows one station to call other internal and external stations and have them participate in a call from another station or several other stations.

data communications The transmission of data from computer to computer through telephone lines.

direct department calling A feature that allows a user to call a station directly without going through the central switching unit or PBX.

direct-in-line (DIL) A feature similar to a direct department line except that the call is placed to a single station rather than an entire department.

discriminating ringing Different ringing and bell tones to indicate whether a call has been received from an internal or external line.

do-not-disturb A feature that gives incoming calls either a busy signal or a signal indicating that the station is not to be disturbed.

DTMF/DP telephones Systems that allow pushbuttons (DTMF) and rotary (DP) telephone handsets.

equal access The ability of users to jump across long-distance companies of their choosing by depressing 1 on the handset.

high-cost signal A signal that tells users that their call is being routed on the most expensive route.

hunt groups A feature that relays an external or internal call from one group of stations to another based on the hunt selection sequence specified by the system.

intercom capability The ability to use a handset as an intercom without dialing the party through an outside line.

key telephone system A type of telecommunications system that allows users to connect directly to an outside line by depressing a button on the handset.

least-cost routing A system feature that automatically selects the most economical method for the call to be placed.

lighted line indicators Lights on the handset indicating which lines are in use.

loudspeaker paging systems A loudspeaker paging system can be installed in either the handsets or in the surrounding environs. The loudspeaker can be activated like another extension on the phone system.

meet-me page A station that can page users and request that they go to the nearest available station and type in a code to be added as a party to a conference call. This feature can also be used to program automatic return calls from busy stations.

music-message hold The system plays background music or a message while the calling party is on hold.

night class of service The ability to change the day basic class of service by placing the system in the night mode. This includes changes in external calling patterns.

station-related features The features available to users. They are accessed and programmed at the user's telephone instrument.

system-related functions Features available to all users as part of the system.

toll blocking The ability to limit the area codes or exchanges to which a phone call can be made.

voice mail A system feature that allows a voice message to be taped by callers dialing onto a specific extension when either the user does not respond or the line is busy. The user can later retrieve the messages either internally or externally using a touch-tone phone.

wide area telephone service (WATS) One type of telephone service that offers reduced rates for long-distance calling. Different long-distance carriers have different types of WATS services.

BIBLIOGRAPHY

Books

Ance, Louis, and Robert Hazenfield. *Phones on Your Own.* Reston, Va.: Reston Publishing Company, 1984.

Arlcon, Nicholas. *Basic Guide to One/Two Key Telephone Installation.* Geneva, Ill.: ABC TeleTraining, 1988.

Brennan, S. *Key Telephone Systems Market.* New York: Northern Business Information, 1987.

Frost & Sullivan. *Key Telephone Systems Market.* New York: Frost & Sullivan, 1987.

__________. *Telephone Answering Equipment and Services Market.* New York: Frost & Sullivan, 1984.

__________. *Telephone Call Accounting Market.* New York: Frost & Sullivan, 1986.

Garner, Patricia. *The Office Telephone: A User's Guide.* Englewood Cliffs, N.J.: Prentice-Hall, 1984.

Jordan, Alan H. *The Encyclopedia of Telephone Cost Reduction Techniques.* Wayne, Pa.: Add-Effect Association, 1981.

LaCarruba, Joseph, and Louis Zimmer. *How to Buy, Install, and Maintain Your Own Telephone System.* Binghamton: N.Y.: Almar, 1981.

Maher, B. *Modern Telephony.* Englewood Cliffs, N.J.: Prentice-Hall, 1989.

Mingail, Harry. *The Business Guide to Telephone Systems: How to Evaluate and Improve Your Communication Systems.* Vancouver, B.C., Can.: International Self-Counsel Press, 1984.

Oppedahl, Carl. *The Telephone Book.* Chesterland, Oh.: Weber Systems, 1985.

Silberberg, J.L. *Alternative Telecommunications Costing Methods.* Cambridge, Mass.: Harvard University Program on Information Systems Resources, 1990.

Tedesco, E.H. *Telecommunications for Business.* Boston: PWS-Kent, 1990.

Directories

Telecommunications Cost and Call Management.

Published by Faulkner Publishing Company, 6560 N. Park Drive, Pennsauken, N.J. 08109.

Telecommunications Systems Guide.

Published by Faulkner Publishing Company, 6560 N. Park Drive, Pennsauken, N.J. 08109.

Telephony's Telecom Tactics and Strategies.

Published by Telephony, 55 E. Jackson Boulevard, Suite 1100, Chicago, Ill. 60604.

Periodicals

Gelfond, Susan. "What's Causing That Blip in Your Business Phone Bills?" *Business Week* (May 1, 1989): 132A.

Jordan, Alan H. "Using a Spreadsheet to Analyze Phone Bills." *The Office* 102: (October, 1985) 43-44+.

LaBlanca, Elizabeth. "How Companies Can Cut Telephone Costs." *Advanced Management Journal* 49: (August 1984) 24-28.

McHale, Daniel. "Call Accounting Systems Meet the Microcomputer." *Telephony* (May 6, 1985).

In addition to these specific articles, the practitioner will find the following weekly journals contain helpful articles.

Telephone News. Published by Phillips Publishing, 7811 Montrose Road, Potomac, Md. 20854

Telephony. Published by Telephony, 55 E. Jackson Boulevard, Suite 1100, Chicago, Ill. 60604.

45/100 MICROCOMPUTER TRAINING

CONTENTS

45/100 MICROCOMPUTER TRAINING

45/105 SCOPE OF THIS PRACTICE AID

.01 The increasing use of microcomputers in business has created many opportunities for practitioners. Clients often rely on CPAs to help them identify data-processing needs, select hardware and software, and implement systems. Regardless of how well a system "fits" the client, it will not succeed unless client personnel can perform needed operations.

.02 This portion of the manual provides practitioners with information to help train client personnel to use microcomputers and selected software applications. This section assumes that the hardware and software (selected following either the client's needs assessment or one conducted by a third party) are suitable, and describes a typical microcomputer-training engagement for a small business. It involves (*a*) determining the level of current user knowledge, (*b*) selecting a site and scheduling training, (*c*) choosing the best training method under the circumstances, (*d*) developing and obtaining training materials, (*e*) preparing the training site, (*f*) conducting the training, and (*g*) reviewing the participants' evaluations. These engagement activities may need tailoring to accommodate particular client requirements or circumstances, such as one-on-one training or large-group training.

.03 This section shows practitioners how to provide maximum benefit to the client in a microcomputer-training engagement while earning a profit. However it does not address the special training needs of specific software packages, such as Lotus 1-2-3 or WordPerfect. Rather, it gives practitioners guidance in determining the training needed and the structure of the training program.

.04 The terms *practitioner* and *instructor* are used interchangeably throughout this section.

45/110 ENGAGEMENT ACCEPTANCE CONSIDERATIONS

.01 To be successful, a microcomputer-training engagement needs a high level of management cooperation and commitment. If this cooperation is not apparent, the practitioner may wish to decline the engagement, since client personnel, sensing a lack of management support, will probably be unreceptive to the training and thereby reduce its benefits. Client management must also be prepared to expend the money and staff time required for proper training. This commitment of time and resources includes permitting personnel to attend training classes, even during regular working hours.

.02 A practitioner who lacks appropriate knowledge of the client's software and hardware might also decline an engagement. Although the practitioner may learn how to use the client's hardware or software, the perspective and depth of knowledge might be insufficient. Even if the practitioner masters the necessary hardware or software, the time spent doing so frequently makes the engagement unprofitable. However, if the hardware or software is fairly standard, the practitioner may want to invest the time and resources to acquire the expertise because there may be a wider demand for it. As an alternative, practitioners who lack the necessary expertise can help clients find a good source of training.

.03 If the hardware or software is unsuitable for the client's operations, the practitioner may need to suggest an engagement to conduct an organization-wide evaluation. For further information on the issues to consider the practitioner can refer to section 40/100, "Information Systems Planning and General Design."

.04 When accepting a microcomputer-training engagement, the practitioner needs to carefully define the scope of service, preferably in an engagement letter (see exhibit 45B-1 for a sample engagement letter). By clearly identifying the practitioner's expectations for the training, the letter allows resolution of any misunderstandings before the engagement begins. For example, if the practitioner determines that the software selected won't meet the organization's needs, he or she advises client management to broaden the engagement's scope. The letter can also distinguish between training and post-engagement support.

.05 The letter includes objectives, benefits, special services, documentation, scheduling, follow-up activities, and fees. Fees can be on an hourly, per-diem, or per-trainee basis. Frequently, a fixed fee plus a per-employee fee is more palatable to the client and more profitable to the trainer. If the engagement involves a fixed fee plus a per-employee fee, the agreement needs to include a minimum fee because the participants are often fewer than the client projected.

45/115 ENGAGEMENT OBJECTIVES AND BENEFITS

.01 The objective of a microcomputer-training engagement is to help client personnel become more efficient and effective in operating microcomputers and their particular software applications. Achieving this objective often increases employees' job satisfaction. With proper training, what may be a grueling experience for those with inadequate microcomputer skills can become a source of pride and self-confidence.

.02 The primary benefit of the training engagement is improved staff productivity. A quality training session can often overcome the obstacles inherent in learning on one's own. In a relatively short period, an experienced instructor can teach employees with limited exposure to computers some of the important tricks, traps, and shortcuts that would otherwise have taken them months or years to learn on their own. Another benefit of the engagement is the opportunity to encourage and direct personnel by showing them management's concern about their needs and the importance management places on microcomputer skills through the commitment of resources.

45/120 CONDUCTING THE ENGAGEMENT

Reviewing Application Needs and Users' Computer Knowledge

.01 The practitioner needs to have a good understanding of how the client will use the software. This is particularly important for training engagements for accounting applications, since software packages often include features that are not needed by all clients.

.02 Training is most effective when it satisfies users' needs. The practitioner therefore identifies the operations users need to perform and determines the users' current level of microcomputer knowledge. Management is likely to have information on some of these subjects; however, a more reliable way to acquire this information is through interviews and questionnaires. These high profile activities can also increase users' awareness of management commitment.

.03 **Interviews.** The most effective means of learning about users' needs and knowledge is the interview. Nonthreatening conversation between the practitioner and each user can yield more information and insight about the user's current knowledge than other techniques. On the other hand, user interviews are time consuming and may be inappropriate if many users require training.

.04 **Questionnaires.** User questionnaires may be appropriate when many people are to be trained. Questionnaires can provide useful information on skill levels without requiring a great deal of time for users to complete or for the practitioner to analyze. Questionnaires often give client personnel a better understanding of how much or how little they really know. Beginners who have no formal computer training frequently underrate their abilities, while those on an intermediate level frequently overrate their computer expertise, especially when the intermediate users have the most computer knowledge in the office. The questionnaire helps intermediate users realize that they can benefit from training too.

.05 Exhibit 45B-2 is a sample questionnaire covering the DOS operating system, and is provided for illustrative purposes only. Since different software packages have different commands and capabilities, a generalized questionnaire (on spreadsheets or word processing, or even DOS) usually is inadequate. Each specific software product often requires developing a separate questionnaire.

.06 The cost of developing a questionnaire may be prohibitive, particularly if the practitioner uses it only once. Furthermore, the results may be difficult to evaluate. (The practitioner may need to validate the questions first by using an outside control group to establish a basic level of knowledge. The control group would consist of beginning, intermediate, and advanced users.) However, if the practitioner uses questionnaires as a marketing tool to demonstrate the need for training, the development cost becomes more reasonable.

Selecting a Site and Scheduling

.07 The quality of the training site affects participants' perceptions of the quality of the training itself and usually influences how enthusiastically they use the computer. If the facility is not top quality, participants will not regard the training as first-class.

.08 The practitioner carefully selects the training site and schedules the sessions to minimize disruption of client operations. Moving the machines to one training room may greatly disrupt client personnel, particularly if the machines form part of a network. Disruption of operations is also a primary concern for clients with several office locations, particularly when the client wants a single training site and session to minimize training costs.

.09 The problem worsens when training could affect the client's customers. For example, a single training session for order-entry clerks or inside salespeople would be impractical for a merchandising concern that depends on telephone order processing. Such a situation requires several training sessions or shifts.

.10 When the client lacks a suitable location for training, the practitioner may use the firm's facilities or rent meeting rooms at local hotels. Off-site training minimizes disruption of client operations and eliminates interruptions of client personnel to take care of phone calls and other urgent business activities. Regardless of location, the facility should afford comfortable surroundings and a professional setting with good lighting, visual-aid capability, and freedom from outside noise. These are important considerations especially if there is the likelihood of individual tutoring a few days later as a follow-up to reinforce what was learned.

.11 If users vary greatly in knowledge and skills, the practitioner may schedule two or more classes, for example, one for beginners and one for advanced users. Training users with a wide range of knowledge levels in one session rarely works well, since advanced users may become bored. In such situations, even experienced trainers tend to increase the pace to accommodate these advanced users, thereby frustrating the inexperienced users. The trainer may be unaware that there's a problem because the inexperienced users may pretend they understand the material to avoid embarrassment.

Choosing Training Techniques

.12 Hands-on training is essential for introductory courses on specific hardware and software applications. Many trainers believe one participant per computer is most effective; however, two participants per computer is acceptable and less costly. Some trainers advocate the two-per-computer format because participants can share ideas and insights more easily and can help each other through the training. For example, if one participant has poor keyboard skills, the other can do most of the typing, allowing both to concentrate on the new techniques and procedures. Still, most participants now expect to have a computer to themselves and may be unhappy with any other arrangement.

.13 Many advanced techniques may be taught with a large-screen monitor or projection device, and a single computer for the instructor. This method is particularly appropriate when client personnel have a good working knowledge of the software discussed and can fully grasp the techniques illustrated without the need for hands-on repetition. This method may reduce training costs, and it allows the instructor to cover more material during a given session. Projection screens or large monitors are very effective, even when participants have their own computers. Liquid crystal displays (LCDs) that work in conjunction with an overhead projector are reasonably priced, and the newer models provide excellent quality, even in rooms without special lighting.

.14 Having the participants' computers connected through a local area network (LAN) can significantly enhance the training session. Several software packages allow the participants to see on their screen what is appearing on the instructor's screen. Conversely, the instructor may view—and control—any of the participants' screens. This is very helpful for a participant who may be having problems. If the problem is interesting, the instructor can broadcast the participant's screen to all the other participants' screens as the instructor resolves the problem.

Developing and Obtaining Training Materials

.15 Training materials need to be detailed enough to serve as a lasting reference, since the small amount of formal training won't provide depth of experience. After the training session, participants will probably recall the nature, but not the specifics, of the course work covered. With good training materials, they can easily find the specifics.

.16 Providing participants with formal training materials is essential, although the type and quantity of training materials vary with the experience and knowledge of the trainees. For example, intermediate users may not require as much basic computer information or as many exercises as beginning users, so the training materials can be briefer but still appropriate. At a minimum, the trainer provides a course outline. However, most people learn best through exercises and examples, so it is better to hand out materials that provide them. Equally important, the exercises and examples need to be as realistic as possible. For example, training materials for a wholesale merchandising firm can focus on optimizing inventory techniques.

.17 Many practitioners may not have experience in developing training materials of professional quality. Furthermore, they may not have the time required. In such cases, professionally developed training materials supplemented with examples customized to fit each client offer a better approach. The extent of customization depends on the client and the subject matter. For instance, a course on word processing requires little customization; examples appropriate for bank employees would probably also suit chemical company employees. For a spreadsheet course, on the other hand, participants probably need at least a few examples designed with their particular environment in mind.

.18 Typically, users receive a binder containing all the training materials. This includes a manual that documents instructions given in class in an uncomplicated and organized manner. Although providing ample notetaking space, the manual also includes as much key information as possible so as not to overburden participants with note-taking.

.19 For training classes on spreadsheet, data-base, and word-processing software, each participant needs a sample diskette containing the files used in the class exercises. Participants can use the diskette to review the class exercises on their own. The files may also serve as a starting point for similar jobs the trainees will need to complete later.

.20 Several state CPA societies sell microcomputer training materials with instructors' manuals. (See appendix 45/A for a list.) Other sources of training materials include college-level training manuals published by textbook publishers as well as dealers and vendors who offer computer-assisted training aids, such as demonstration aids. Software vendors may be the best source of participant and instructor workbooks and data disks.

.21 Purchasing, rather than developing, training materials offers these advantages: (*a*) frequently superior quality, (*b*) lower cost, and (*c*) up-to-date changes in hardware and software, usually at a minimum additional cost.

Preparing the Training Site

.22 The practitioner needs to inspect the training site before the training date to check the physical environment, the condition of the equipment, and the availability of supplies. The room needs to be well lit and quiet, with a comfortable temperature. Participants need sufficient work space and maximum access to the equipment during the exercises. Limiting the number of trainees to two per terminal can achieve this goal.

.23 The practitioner needs to test the computers at least one day before the training session. Typical problems include multiple hardware configurations, some of which may not be compatible with the software used; different versions of the software; disk drives of the wrong size; and an inadequate power supply.

.24 Environmental conditions are important. Some hardware components are sensitive to extreme humidity or temperature. Proper ventilation helps both the equipment and participants function efficiently. To avoid unexpected interruptions due to electrical problems, the practitioner may need to add power sources and purifiers, surge protectors, and special receptacles.

.25 Hardware or software problems that delay the start of the course will irritate the instructor and participants. Therefore, the practitioner needs to load the software well before training begins, preferably the day before. Even with a fairly standard package like Lotus 1-2-3, it may take several hours to get all the driver sets correct. Equipment such as projection devices and networks require a dry run to make sure they work properly.

Conducting the Training

.26 **The Instructor.** The key component of a successful course is an effective instructor whose critical attributes include knowledge, organization, and good preparation and presentation skills. Many practitioners lack the communication skills of a professional instructor but firms that do a lot of computer training frequently have someone with good presentation skills. Those that do not may need to consider hiring a proven professional instructor. The cost of a professional instructor usually is more than offset by hours saved in preparing for and teaching the course.

.27 **Basic Techniques.** Proper pacing of each session and diversified teaching methods help to ensure the success of training.

.28 *Proper session pacing.* Participants often cite an instructor's poor pacing of a session when evaluating their training experience. They feel frustrated when time does not permit coverage of all of the material included in the outline or when the class is rushed at the end. Practitioners can reduce the chances of running behind schedule by carefully estimating how long it takes to teach each topic outlined. Topics likely to elicit questions or extend a discussion require special consideration.

.29 *Diversified teaching methods.* Almost everyone can recall attending a boring class. The cause may be the instructor's overdependence on a single teaching method, usually lecture. While lectures are important for communicating facts, they can be counterproductive if the class lasts more than a half day. Varying the teaching methods, when possible, is more effective. For teaching concepts or abstractions, the instructor may find discussions, question-and-answer sessions, and practice exercises more appropriate than lectures. The best learning environment is generally hands-on and instructor-led.

Reporting on the Engagement

.30 Shortly after the conclusion of the microcomputer-training class, the practitioner meets with client management to discuss the results. Issues to cover include participants' overall training performance, additional self-study or practice to enhance proficiency, and any needed follow-up or refresher training. The practitioner needs to communicate to managers, especially those who are not computer-literate, the benefits of follow-up and refresher training. No matter how good the course is, participants will not master the material without experience using the software. The practitioner also summarizes and discusses the participants' assessment of their training. The summary is based on each participant's short evaluation—preferably no longer than one page—rating the instructor workbook, content, and so forth, on a scale of one to five, for example.

.31 A written engagement report may be useful to the client and the practitioner. At a minimum, the practitioner attaches a cover letter to the bill, summarizing the outcome of the training and suggestions for future training. A more detailed written report provides a permanent record of the training and can reinforce the client's perception of the practitioner's professionalism.

APPENDIX 45/A

SOURCES OF TRAINING MATERIALS AND INFORMATION

The following list of training resources is based on a recent AICPA survey of state societies. Organizations and state societies other than those listed also provide resources. In addition, vendors often provide resources. Typically, the vendors offer some or all of the following: formal courses and seminars, microcomputer conferences, course materials with an instructor's manual, and self-study courses.

American Institute of CPAs
Harborside Financial Center
201 Plaza Three
Jersey City NJ 07311-3881
(800) 862-4272

California Society of CPAs
275 Shoreline Drive
Redwood City, CA 94065-1412
(415) 594-1717

Colorado Society of CPAs
7720 East Belleview Avenue, #46B
Englewood, CO 80111
(303) 773-2877

Georgia Society of CPAs
3340 Peachtree Road, N.E.
Atlanta, GA 30326
(404) 231-8676

Indiana CPA Society
P.O. Box 68847
Indianapolis, IN 46268
(317) 872-5184

Louisiana Society of CPAs
2400 Veterans Boulevard, Suite 500
Kenner, LA 70062
(504) 464-1040

Maryland Association of CPAs
P.O. Box 484
Lutherville, MD 21093
(301) 296-6250

APPENDIX 45/B

SAMPLE ENGAGEMENT LETTER AND TRAINING MATERIALS

Exhibit 45B-1

Sample Engagement Letter

[*CPA Firm's Letterhead*]

July 5, 19XX

Ms. Client
Client Firm Name
Any City, USA 99999

Dear Ms. Client:

I enjoyed meeting with you to discuss your company's microcomputer-training needs. In that meeting we agreed that our firm will train your employees in the DOS operating system as well as Lotus 1-2-3. This letter confirms our understanding of the agreement. Please read it over carefully and contact me if you have any questions.

Engagement Objective

The objective of our engagement is to help your employees gain proficiency in running your operating system and electronic spreadsheet applications.

Engagement Scope

The scope of the engagement will involve training up to ten of your company's staff to use the MS-DOS operating system and Lotus 1-2-3. Training sessions will include examples of company operations. We will perform all work in accordance with the Statements on Standards for Consulting Services issued by the American Institute of Certified Public Accountants.

Engagement Approach

We propose to do the following:

1. Give participants a questionnaire on July 21, 19XX, before the first training session. We will then tabulate the results and use the information to plan the training sessions. This fact-finding questionnaire will—

- Identify the training level required by the participants.

- Determine what data to use in the training sessions, including which documents to include in the training manual.

- Define the reports that will be useful to the company.

2. Using the participants' questionnaires, develop the courses, with outlines on the following subjects:

- The MS-DOS operating system

- The Lotus 1-2-3 (Release 3.1) electronic spreadsheet

3. Complete three seven-hour training sessions.

Your company will be expected to do the following:

1. Provide the necessary equipment and computer supplies to train participants at your offices.

2. Make the necessary time for training available. This includes relieving your employees of their other responsibilities so that they can concentrate on the training. Interruptions need to be restricted to emergencies only.

3. Cooperate with our staff in developing DOS and electronic-spreadsheet exercises before the training sessions begin.

Client Benefit

The training aims to improve staff efficiency and effectiveness with computer applications. Improved morale and better use of microcomputer resources may also result, since providing time for microcomputer training sends employees a clear message about the importance of proficiency. In addition, training in the sophisticated software of today may prompt users to be innovative and to create new reports and applications.

Engagement Staffing and Scheduling

The engagement will begin on July 21, 19XX, when we will administer the questionnaire. The training portion will begin on August 3, 19XX, and, we expect, will be completed in three days. The engagement will include two separate classes: a two-day session for beginners and a one-day session for experienced users. During this period, trainees will attend class from 8:30 A.M. to 4:30 P.M. Their complete participation will make it easier for them to learn applications covered in the course outline.

I will supervise the engagement. John Brown, who has conducted similar training sessions during the last three years, will be the instructor. Participants will receive a course workbook and a data disk for each class.

Project Completion

The engagement will be complete when all training sessions are finished. We will then provide you with the course training materials, which will give you a clear understanding of the information your employees received during the training sessions. These materials will also help you determine requirements for user proficiency and performance. We will also provide telephone support on material covered in the classes for XX days after completing the engagement.

Fees, Billing, and Payments

Our fee for this engagement is $XXX per day of training plus $XX per participant. There is a minimum of $XXX per day of training. We estimate the cost of the project at $X,XXX. We will bill you as soon as training is completed, and we expect payment within thirty days of the billing date. We will bill you for any out-of-pocket costs, such as transportation or materials.

Engagement Acceptance

Please acknowledge acceptance of these terms by signing this letter and returning one copy to us. Thank you for retaining us. We hope this will be the beginning of a long and mutually beneficial relationship.

Sincerely,

Sue Richards, CPA

Accepted by____________________________

Date_________________________________

Exhibit 45B-2

Sample Literacy Questionnaire—
DOS Operating System

Select the **BEST** answer for each of the following. (The correct answers are underscored.)

____ 1. At the system prompt, you enter the following command: COPY SAMPLE DOC A: Which of the following will result?

A. The contents of drive A will be copied to a file named SAMPLE.DOC.
B. The file SAMPLE.DOC in the default directory of the default drive will be copied to drive A.
C. The file SAMPLE.DOC in the root directory of the default drive will be copied to drive A.
D. The file SAMPLE.DOC will be copied to a new file named A:.

_____ 2. (T or F) Each file name may contain up to seven characters and each file extension may contain up to three characters. For example: FYE1989.WK1

_____ 3. (T or F) The DISKCOPY command is useful for copying the contents of one diskette (the source) to another diskette (the target) without destroying the files already on the target diskette.

_____ 4. (T or F) You do not need to format a diskette that is to be used as the target of the DISKCOPY command.

_____ 5. Which of the following commands can you use to view the contents of a DOS text file named ANNUAL.RPT?

A. READANNUAL.RPT
B. VIEW ANNUAL.RPT
C. TYPE ANNUAL.RPT
D. DISPLAY ANNUAL.RPT

_____ 6. Which of the following commands can you use to view the names of the files residing in the default directory?

A. DIR
B. LIST
C. FILES
D. NAMES

_____ 7. (T or F) You must format a diskette before it can be used to store files.

_____ 8. (T or F) Assume the default directory contains 100 files. You can use the /P switch with the DIR command to list the file names one screen at a time.

_____ 9. (T or F) The PATH command allows you to execute an executable file stored in a directory other than the default directory.

_____10. (T or F) Diskettes are fragile and should be stored with care.

_____11. (T or F) Hard-disk backup procedures are unnecessary because the disk is contained in a sealed case.

_____12. T or F) You can use the SYS command to transfer the hidden system files to a floppy disk.

_____13. (T or F) Floppy disk drives are commonly referred to as the A drive and the B drive. A hard disk drive is usually referred to as the C drive.

_____14. If you don't specify a drive name when you type a file name, DOS automatically searches for the file in—

A. The root directory of drive C.
B. The disk with which you booted the computer.
C. The default directory of the default drive.
D. All directories of all drives.

_____15. (T or F) A microcomputer uses pieces of hardware called devices to receive input and send output.

_____16. The first parallel printer port of a microcomputer is called:

A. PRN1
B. COM1
C. LPT1:
D. PRINT1 >

_____17. (T or F) When you press the CONTROL key and the C key at the same time, you can stop most DOS commands.

_____18. (T or F) If you want to restart DOS (often called a *warm boot*), press the CONTROL, SHIFT, and ALT keys at the same time.

_____19. (T or F) The COPY command can be used to copy one or more files from one disk to another.

_____20. Which of the following commands would copy all of the files from the root directory of drive A to the current default directory of drive C?

A. COPY A:*.* C;*.*
B. COPY A:ROOT C:DEFAULT
C. COPY A:*.* C:\
D. COPY A:*.* C:

_____21. (T or F) The DEL command can be used to remove the operating system files from your hard disk.

_____22. (T or F) You can send an ASCII text file to your default printer using the DOS PRINT command.

_____23. (T or F) To format a disk in drive B and have the DOS system files transferred, use the command FORMAT B:.

_____24. When you start up DOS, it automatically searches for a file that will setup DOS for devices and application programs. What is the name of that file?

A. START.BAT
B. CONFIG.SYS
C. SETUP.SYS
D. COMMAND.SYS

_____25. (T or F) If there is an AUTOEXEC.BAT file in the root directory of your boot disk, DOS will not automatically prompt you for the time and date.

_____26. (T or F) Issuing the DOS COMMAND PROMPT PG tells DOS to display the default drive and directory, followed by a greater-than sign (>).

_____27. (T or F) A disk is used for storing programs and files.

_____28. Which of the following statements best describes the proper function of DOS subdirectories?

A. Subdirectories physically separate files on a hard disk.
B. Subdirectories ensure that all the files you generate with a particular application program are stored in the same location as the program.
C. Subdirectories let you group your files in convenient logical categories.
D. Subdirectories are used to list files on disk drives that are below the default disk drive.

_____29. (T or F) The symbols * and ? serve as wild cards that can be used with several DOS commands.

_____30. (T or F) DOS programs that you create with another programming language, such as Assembly, are called executable files and will have the file extension .Exx.

_____31. Which of the following commands will redirect the output of the directory command to a file called DIRLIST.TXT?

A. REDIR DIR DIRLIST.TXT
B. DIR REDIR DIRLIST.TXT
C. DIR DIRLIST.TXT
D. MD/DIRLIST.TXT/DIR

_____32. (T or F) The CHKDSK command checks your disk for errors and gives you information on the number of files and subdirectories on your disk.

_____33. (T or F) You can create subdirectories only on a hard disk.

_____34. (T or F) The CLS command clears your screen leaving only the DOS prompt and the cursor.

_____35. Which of the following commands will create a subdirectory named FILES, one level below the root directory of the current default disk drive?

A. MD\FILES
B. CD\FILES
C. CRDIR C:\FILES
D. MD C:/FILES

_____36. (T or F) The PATH command allows you to specify a list of directories to be searched when you issue a command. The default value is no path.

_____37. (T or F) LINEDIT is the name of the DOS line editor that you can use to create text files and save them on your disks.

_____38. (T or F) A batch file is a DOS text file that contains a sequence of commands. Batch files always have the file extension BAT. They can be executed by typing in the file name without the extension.

_____39. Which of the following statements best describes the function of the AUTOEXEC.BAT file.

A. The AUTOEXEC.BAT file allows you to execute a batch file by typing in only the file name and not the extension.
B. The AUTOEXEC.BAT file lets you run programs automatically from inside other programs.
C. The AUTOEXEC.BAT file is a substitute for the CONFIG.BAT file and allows the use of macros.
D. The AUTOEXEC.BAT file lets you run programs automatically when you start DOS.

_____40. (T or F) Replaceable parameters used with batch files allow batch-file looping and sorting.

Exhibit 45B-3

Outline for a Course on the Basics of Microcomputers

I. Microcomputer hardware

A. The microprocessor
B. Disk drives
C. Display options
D. Printers

II. Operating system software

A. DOS vs. OS/2
B. Commonly used DOS commands
C. Hard-disk management
D. DOS batch files
E. Backup

III. Applications software

IV. Microcomputer networks

Exhibit 45B-4

Outline for a Course on Spreadsheets

The following is a sample outline that covers some of the most frequently used features of a spreadsheet package.

I. Basic operations

   A. Moving around the spreadsheet
   B. Entering labels and numbers

      1. Label prefix symbols
      2. Common problems with certain labels, such as phone numbers

   C. Building formulas

      1. Simple + and - formulas
      2. Using the pointer to build formulas
      3. Cell-reference formulas

   D. Issuing basic commands

      1. Worksheet vs. range commands
      2. FILE SAVE and FILE RETRIEVE
      3. RANGE ERASE and RANGE FORMAT
      4. WORKSHEET GLOBAL FORMAT and WORKSHEET GLOBAL LABEL prefixes
      5. COPY and MOVE commands
      6. Print commands
      7. WORKSHEET ERASE and QUIT

II. Advanced operations

   A. Using the copy command with formulas

      1. Relative vs. absolute cell references
      2. Partially absolute references

   B. Improving formulas with functions

      1. @SUM
      2. @IF
      3. @PMT
      4. @ROUND

C. Using commands that tie it all together

1. DATA FILL
2. DATA TABLES
3. RANGE NAME CREATE
4. WORKSHEET GLOBAL
5. GRAPH

D. Creating keystroke macros

Exhibit 45B-5

Outline for a Course on Word-Processing Software

The following is a sample outline describing the components typically covered in a one-day training session.

I. Basic functions

  A. Typing and deleting
  B. Using hard vs. soft carriage returns
  C. Changing default settings
  D. Moving around a large document
  E. Printing
  F. Saving and retrieving documents

II. Intermediate functions

  A. Spell-check and thesaurus
  B. Search-and-replace commands
  C. Block, move, copy, and delete commands
  D. Bold and underline commands
  E. Page numbers, footers, and headers
  F. Centering and justification
  G. DOS text files import and export

III. Advanced functions

  A. Mail-merge
  B. Fonts and printer communication
  C. Macros
  D. Columns and math
  E. Embedding graphics in documents
  F. Desktop publishing

Exhibit 45B-6

Sample Section of a DOS Training Manual

The following is only a portion of a manual that may be used for training on DOS. It is provided for illustration only. Each participant would receive a complete manual with a disk that contains the files necessary to practice the commands illustrated.

Commonly Used DOS Commands

Some vendors provide a copy of DOS with the machine, while others (such as IBM) charge for DOS. In any case, DOS is not optional because a microcomputer will not "boot up" without it. This means that you cannot get the computer to do anything without DOS. *Booting up* is the term used to describe the process of turning on the machine and automatically loading DOS.

If your computer does not have an internal battery-driven clock-calendar, it will probably prompt you to enter the time and date when you boot. An AUTOEXEC.BAT file on the boot disk allows you to bypass entering the time or date. We will cover the AUTOEXEC.BAT file in the next section of the course.

After the process of booting is complete, the computer will generally display the drive letter of the boot disk with a greater-than symbol (>)behind it. If you have a hard disk and the DOS operating system has been installed, you will probably boot from the hard disk (normally named drive C). Therefore, if you boot from drive C after you enter the time and date, your computer will display a capital C with a greater-than symbol (>)behind it. The C> prompt indicates that disk drive C is the default drive. In other words, if you type in a command or file name, the computer will look in drive C to find how to execute the command or file unless the command or file is already in the memory of the computer (RAM). To change the default disk drive to A, type A: and press ENTER. Notice that the prompt is now A>. This indicates that the default drive is now the floppy drive.

You do not need to make A the default drive to access files and commands in that drive. Instead, you can place A: in front of the command or file name you are looking for.

Listed on the following pages are some of the more frequently used DOS commands. The ones with a number symbol (#) beside them are copied into RAM when the system is booted. They can be used without having the DOS disk in this system, but the others cannot.

Type in each command in either large or small letters and then press ENTER to execute the command.

<u>IMPORTANT!!</u> Unless the example indicates otherwise, all of the examples in this section assume that the disk that comes with this course is in drive A and that drive A is the default disk drive.

DIR (#) lists all the files in the default directory of the default drive. All information (both programs and data) is stored as files with names that can be up to eight characters long and file extensions of up to three characters. With the directory command, you can get a table of contents of the disk.

Example: Type DIR and press ENTER

Many DOS commands have **parameters** that you can add to the command to make it function differently. The DIR command has two such parameters. /P causes the display to pause when the screen is full. The prompt *Strike a key when ready...* appears at the bottom of the screen.

Example: Type DIR/P and press ENTER

/W displays the directory information in a wide format. Only the file names and directory names are shown.

Example: Type DIR/W and press ENTER

If you want to see a directory other than that of the default drive, type the directory command followed by a space and then the drive and a colon (DIR C:).

Example: Type DIR C:

BIBLIOGRAPHY

DeJager, Peter. "Shoddy Spreadsheet Training Can Be a Curse: In Many Operations, Analysis and Design Misunderstood." *Computing Canada* 16 (January 4, 1990): 22.

Eckerson, Wayne. "End-User Training a Key to Success in Network Projects." *Network World* 7 (February 19, 1990): 27.

Fleenor, William C., John Crain, and Paul Carruth. "A Formal Approach to Microcomputer Training." *Journal of Accountancy* 169 (July 1989): 107.

Hayen, Roger L., Wells F. Cook, and Gregory H. Jecker. "End User Training in Office Automation: Matching Expectations." *Journal of Systems Management* 41 (March 1990): 7.

Karten, Naomi. "Evaluations That Rate a '10': Are You Getting the Most From Your Best Source of Student Feedback?" *Computerworld* 24 (February 12,1990): 116.

Reitzfeld, Milt. "Training Is Necessary, Not a Reward." *Journal of Systems Management* 40 (February 1989): 25.

Sebrell, William. "Training Center Do's and Don'ts: It Can Provide the Ideal Learning Environment, If Given Enough Thought." *Computerworld* 24 (January 22,1990): 129.

Statements on Standards for Consulting Services. New York: AlCPA, 1991.

Statements on Standards for Formal Group and Formal Self-Study Programs. New York: AICPA (series).

46/100 MICROCOMPUTER SECURITY

CONTENTS

46/100 MICROCOMPUTER SECURITY

46/105 SCOPE OF THIS PRACTICE AID

.01 Security has always been an area of concern in a business. A key responsibility of management is to safeguard the assets of the business, which include computerized accounting records and other information. If computerized data are lost and unrecoverable, changed by unauthorized persons, or stolen and used by a competitor, the business's risk of financial loss increases.

.02 The investment in computing resources for both hard and soft costs is significant. The hard costs include the purchase price of microcomputers and peripherals (for example, printers, tape drives, and scanners); the soft costs include those associated with training personnel, implementing the system, and developing backup and recovery procedures.

.03 Microcomputers perform a variety of functions, some of which were previously performed exclusively on minicomputers and mainframes or on dedicated computing equipment (for example, word processors and CAD/CAM equipment). The result of this shift is often a decentralization of information processing and total independence from a company's primary computer system.

.04 Although microcomputers offer a flexible processing environment, they pose potential problems for a business's traditional control systems, which management usually oversees within a normal organizational structure. But functions performed on microcomputers may not be integrated into the company's internal control system. Additionally, microcomputers may increase rather than decrease the concentration of duties within a functional area, making control procedures more difficult to implement. Consequently, microcomputer security is a concern to all businesses.

.05 This practice aid provides practitioners with an overview of a microcomputer security-review engagement. It may also help practitioners and members in industry (*a*) understand the work of computer security experts and other personnel assigned to the project and (*b*) develop policies and procedures for internal operations involving microcomputer resources.

.06 This practice aid focuses solely on microcomputer security. Although there may be some similarities in security issues for microcomputers, minicomputers, and mainframes, the microcomputer introduces a special set of security problems to business management and the practitioner. These problems are presented here as they relate to the single-user microcomputer, microcomputers in a local area network (LAN), and microcomputers communicating with other microcomputers or larger-scale processing systems.

.07 This practice aid does not address the issues involved or the methods by which security may be studied and evaluated when an audit of financial statements is being performed in accordance with generally accepted auditing standards.

46/110 TYPICAL ENGAGEMENTS

.01 Ideally, a practitioner assists a client in instituting microcomputer security procedures when a client introduces microcomputers into the workplace. The practitioner may have the opportunity to recommend improvements in procedures over time. More commonly, though, a microcomputer security review occurs when a problem arises. The following situations are examples of when a microcomputer security review or related projects are applicable:

- *Initial system purchase.* When initially considering a microcomputer the client may involve the practitioner in the acquisition decision or with related issues. This is the opportune time to discuss security options and establish workable policies and procedures.

- *Deficiencies detected during an audit.* An auditor's examination of internal accounting controls can reveal inadequacies in the data processing environment, including issues of system backup and recovery, access to the computer, the functioning of systems, and segregation of duties.

- *Loss of data files.* When significant data files are lost because of absent or inadequate backup and recovery procedures, a client may want to prevent the loss from occurring again.

- *Suspected theft or misuse of data.* Possible employee theft of information or unauthorized access to the system can significantly increase interest in tightening controls over the system.

- *Increased access to or from other computing systems.* Introduction of telecommunications with other systems or expanded access to the client's microcomputer may initiate questions such as: Who can have access? What functions can be performed? Is the user authorized to perform the function?

- *Expansion of microcomputer use.* As more microcomputers are used, networked together, or interfaced with other systems, the client may require new or revised policies and procedures and hardware or software capabilities to address the security needs of the company.

- *Personnel turnover.* Changes in personnel may require additional training in proper security procedures. The practitioner may be called on to provide continuity of knowledge between a business's various systems and to familiarize new employees with the systems in use.

46/115 ENGAGEMENT ACCEPTANCE CRITERIA

.01 The practitioner determines the level of technical skill required to properly address the client's needs. For instance, the skill necessary to handle a single-user microcomputer is much less than that needed for a multiple-workstation LAN. If the practitioner does not have all the required skills, then technical specialists may be called on when necessary.

.02 The client needs to appreciate the value of reasonable security policies and procedures governing the use of microcomputers. Without management's support, operating personnel may not fully implement or comply with recommended security practices. Consequently, the practitioner discusses with management the issues involved in securing compliance. The practitioner conveys the cost-benefit value of various security alternatives so that the appropriate mix of security practices can be implemented.

46/120 ENGAGEMENT OBJECTIVES AND BENEFITS

.01 The objectives of a microcomputer security review are to—

a. Determine the organizational environment in which the microcomputers are used, in terms of supervisory, technical, and operational personnel.

b. Establish who has access to the computer system, its applications, and its data files, for what functions, and from which locations.

c. Determine to what extent backup and recovery procedures are used and are necessary.

d. Identify security policies and procedures and how to monitor compliance with them.

.02 Typically, the small business environment does not allow for adequate segregation of duties among individuals and functions; using microcomputers can further concentrate those duties. Consequently, traditional control approaches for larger data processing environments may not be practical when applied to microcomputers.

.03 Since the client may not possess data processing expertise, the practitioner is an important technical resource—someone who is familiar with the business and its security needs. The engagement provides management with security recommendations that are practical and beneficial to the way in which the company does business. The benefits resulting from such an engagement may include—

- Increased control over the functions performed with microcomputers.
- User accountability by functional area, as well as restrictions preventing unauthorized persons from gaining access to certain applications.
- Improved ability to recover software and data files through formal backup and recovery procedures.

- Protection of equipment, software, and data from theft or other forms of loss.
- Limitations on exposure to loss of sensitive company information.

46/125 ENGAGEMENT APPROACH

Reaching an Understanding With the Client

.01 To achieve a successful microcomputer security-review engagement, both the practitioner and client need to understand (*a*) the client's security requirements, (*b*) the security problems that have occurred in the past, (*c*) the extent of the security review desired, and (*d*) the margin of risk within which the client is willing to operate.

.02 The review can include assessing security throughout the general work environment. This means evaluating the physical location and access to microcomputers as well as the organization of the entire system. The review can also evaluate the security of operating and application systems, perhaps emphasizing more complex operating environments, such as local area networks (LANs) or microcomputers interfaced with larger-scale processing systems (minicomputers or mainframe computers).

.03 The engagement letter needs to state the basic facts of the engagement. Exhibit 46-1 provides a sample engagement letter, which includes some of these considerations and indicates the intended use of a specialist.

Planning for the Review

.04 Depending on the complexity of microcomputer use in the client's operations, the time required to perform the review may vary. As in any engagement, the practitioner plans the activities before beginning fieldwork in the client's facilities. The practitioner may find it beneficial either to conduct a survey or ask the client to complete the Microcomputer Information Survey (exhibit 46-2).

.05 The survey documents the specific hardware (by physical location) and the software systems in use. It helps the practitioner determine the applications performed on the hardware, identify any telecommunications activities with remote systems or databases, and understand the organizational structure in which the microcomputer resources are used and the specific responsibilities of the personnel involved.

.06 Having collected this information, the practitioner begins to identify the security exposure areas, to plan the approach to the remainder of the review, and to determine if his or her staff has sufficient skills to conduct the engagement. Through additional research, the practitioner can determine the security capabilities of the client's hardware and software systems. Lastly, the research indicates to what extent the client currently employs any available security features of the equipment and software.

Assessing the Security Risks

.07 Security risks are present in virtually every processing system, whether manual or automated. To determine how much security is needed, the practitioner may use a standard work program. (See exhibit 46-3, "Microcomputer Security Work Program," which identifies risk areas to assess.) The work program is a framework for the review from which additional investigations may be initiated, depending on the extent and complexity of the client's operations. From this assessment, the practitioner can determine not only risks, but also appropriate counterbalancing measures.

.08 Security factors can be divided into eight categories:

a. Organizational structure

b. Physical access to equipment

c. Physical environment

d. User authentication

e. Software and data files

f. Backup and recovery policies

g. Sensitive information

h. General policies

.09 **Organizational Structure.** Large organizations have a greater opportunity to segregate functional responsibilities and cross-train staff. Small businesses may concentrate many duties in only one or a few persons, risking a lapse in business operations if key personnel are absent and a greater chance of errors (unintentional or intentional) and omissions. In small business settings, therefore, the involvement and computer knowledge of owner-management may be an important control consideration.

.10 Whether the operation is large or small, management needs to be sensitive to the technical competence of its microcomputer users. Are they likely to wander into "foreign" areas of the system and make unintentional mistakes? Could they recognize the possibility of deleting a file? Would they accidentally overwrite a file?

.11 The practitioner needs to determine the degree to which employees' access to computing functions is consistent with assigned jobs. Employees with responsibilities for creating and maintaining data demand access to the corresponding functions in a system, whereas those with a need only to view information should not be able to initiate or modify transactions.

.12 The practitioner also needs to assess the employees' attitudes. Are they disgruntled because of poorly defined functions or inadequate compensation? Has there been abnormally high employee turnover? Would they attempt to deliberately destroy data files or equipment? Would they access sensitive information files without authorization?

.13 The financial exposure of the business requires consideration as well. Could a financially and technically savvy employee alter records through the computer, use it to steal funds, or cover up any other actions taken? What is the company's operational dependence on its microcomputers? What happens if the computers go down? Can operations be performed by manual accounting processes? Are there other processing alternatives?

.14 The practitioner evaluates the manner in which management views these problems. Depending on current facts or possible exposure, the practitioner suggests procedures to counteract these risks.

.15 **Physical Access to Equipment.** Because a microcomputer is a relatively small workstation in or close to an employee's work area, it may be difficult to physically isolate the machine. Measures that can limit physical access include the following:

- Use locking devices provided by the manufacturer.
- Secure the equipment to the work area so that it can't be removed.
- Limit physical access to the work area and visibility by the public.
- For LANs, place the file server in a locked area with limited access.
- Protect paper stock (including negotiable items, such as checks) and magnetic media resources when the microcomputer is unattended.
- Use diskless microcomputers to prevent extraction of files from LANs. This prevents a user from downloading files or data to a workstation.

.16 Because most hardware systems are readily available, microcomputer hardware components can be replaced quickly. However certain specialized hardware is best kept at another processing site. The practitioner identifies which equipment is most essential to a client's operations, evaluates the time needed to replace it, and sets up a system to expedite replacement. This information can be documented in the company's backup and recovery policy.

.17 **Physical Environment.** The location of microcomputers in a client's facility may expose the equipment and any data kept with it to environmental risks, such as corrosive materials, dirt or dust, excessive vibrations from nearby manufacturing processes, and power surges. Security measures can minimize environmental risks. Such measures include protective enclosures or covers for hardware and surge protectors or uninterruptible power supplies (UPSs). However, conditions in some client environments may be so poor that data backup is the only option available to ensure continuity of operations.

.18 **User Authentication.** Only those individuals authorized by company management to use the system and its information should have access to it. Authorization can occur at four levels—operating system, application system, program, and file—and is usually controlled by using a password. To be effective, passwords should be limited to those persons who need access to a particular function. The password can even limit access to one part of an application if that is all that is necessary.

.19 The practitioner assesses the current password structure at each level, considering the following:

- How are the passwords managed? In a small operation, the owner may assign passwords; in a large business a security manager or system administrator may either assign passwords or ensure that users select and control their own passwords.

- What is the password structure? Are passwords at different system levels sufficiently unique? Are they shared in any manner? Are they changed periodically, either by the security manager or automatically by the system?

.20 With more complex microcomputer installations, such as a LAN, the operating system may use passwords to provide extensive security throughout the system. These passwords can regulate which hardware devices are opened for use as well as the directories that may be entered. But this procedure is not limited to LANs. Even a single-user system can have a system monitor to determine who is using the system, which files and programs are being accessed, and when an activity occurs. The information can be reported periodically on an audit log. When an audit log exists, an appropriate person, such as the system manager, reviews the log on a regular basis and investigates any unusual entries.

.21 A call-back approach is an appropriate security procedure for remote system access to or from a microcomputer. It requires a call back to an authorized telephone number before allowing a user access at an off-premises site. Otherwise, either software security or manual measures must be developed to ensure that only authorized users can access the system from remote locations.

.22 For especially sensitive situations, passwords can be combined with some form of hardware, such as an access card, to further identify a user. Even biometric security techniques, which identify a person based on fingerprint or retinal (eye) comparison, can be used. However, these techniques are costly and are not yet perfected.

.23 **Software and Data Files.** Various ways to access operating and application systems exist. For instance, menus create a common, easy-to-use interface to application programs and limit the user's activities to the choices offered. At the same time, a menu or other front-end system eliminates employee contact with the operating system.

.24 Because the operating system is usually easy to access and vulnerable to user error the practitioner may advise the client to remove certain functions, such as the FORMAT command, which can erase an entire hard disk or other disk magnetic media. This and other system utilities that enable a user to modify files are best controlled by the system manager. Another method of securing sensitive operating-system functions is to create a hidden file, which allows access to certain functions but does not list them on the system directory.

.25 Many applications systems, such as integrated accounting systems, spreadsheets, word processing, and databases, have at least a minimal level of program and file security. LAN-based application systems should have record-locking capabilities to maintain record integrity. The practitioner considers how to secure these applications by using the existing protection and encryption tools provided with the program software. Possible measures include the following:

- Restrict physical access to the file or media.
- Prevent text, data, or computation changes to the file contents (the records or work fields) by using existing application and operating system features that make the information read-only.
- Ensure that a system exists to document each application properly.

.26 The practitioner establishes a method to control access to data files. By their very nature, data files may be scattered across the microcomputers in a business, and their use may not be closely controlled or monitored. Security problems could cost the company time and effort. Thus, basic procedures should control access to current versions of software master disks, as well as other internally developed programs, templates, and sensitive master files and databases. The practitioner can review documentation to learn about the client's library of software resources, including version numbers, latest update, and authorized users.

.27 Likewise, utility software, which enables the user to perform various functions, including the recovery of data files and modification of corrupted files, should be controlled. In the wrong hands, this type of software can circumvent existing security schemes and data file protection measures.

.28 **Backup and Recovery Policies.** The ability to replace lost or destroyed programs and data files is critical. The practitioner recommends procedures that enable the client to resume business within a short period of time if computer resources (hardware, software, or data files) are lost.

.29 All operating system software, application software, and data files should be backed up. Clients may use tapes or disks to capture and retain information as it is created or updated. The choice depends on the volume and location of the files. The frequency of backup may vary, from daily to monthly, based on the sensitivity of the information and the hardships involved in recreating it.

.30 To avoid losing information through a power surge or power failure, the client uses equipment such as a surge protector or a UPS. This equipment either masks irregularities in the electrical supply or gives the client an opportunity to power down the system in an organized manner.

.31 Computer viruses in programs, particularly those obtained through electronic bulletin boards or nonretail sources (pirated or public domain software), can contain instructions to modify an executable program or a series of programs, including the operating system. These viruses can damage systems. The client should therefore restrict which programs are stored on its system. Company policies can limit acquisitions to software purchased through retail channels (which is unlikely to contain a self-modifying code) and should prohibit pirating software and installing it on company hardware. Procedures should exist to determine that pirated software is not in use. The client can also use software that detects viruses or other security breaches. A business may establish a policy to use only specific application systems approved by management.

.32 Backup procedures vary, depending on the particular system involved. Factors to consider include the transaction volume, the frequency of updating the data, and the company's retention requirements (need for historical information).

.33 Backup procedures for microcomputer systems may not seem necessary to a client. Usually, such procedures aren't considered until a need for recovery arises. However, the practitioner evaluates each system and recommends which backups will remain on-site and which kept off-site. In both cases, the client needs to secure the backup media in an appropriate fireproof area able to withstand extreme temperatures.

.34 The practitioner also determines to what extent the company has tested the backup and recovery policies and procedures. A review of the client's testing approach and results will provide evidence of the company's ability to recover from a disaster.

.35 **Sensitive Information.** Some companies process highly sensitive information on a microcomputer system. For such processing, a removable hard disk, which can be locked up when not in use, is a good option.

.36 Encryption of data files is an additional security option when the client does not want unauthorized access to certain information. The data file is encrypted and decrypted at processing time, the only time the information is in a readable format. Various hardware and software systems encrypt data. Software encryption programs can be obtained and the encryption algorithm deciphered. In contrast, hardware encryption devices become inoperative if tampered with.

.37 Encryption can be used on a system's password files to prevent someone from looking through the files and learning the password structure. It can also be used for transmissions between computers; however, encryption can decrease a computer's processing speed.

.38 **General Policies.** An absence of policies and procedures can promote security problems. Documentation can provide the security rules governing the system as well as other standards to ensure that microcomputer use is as consistent as possible. All employees should be familiar with these policies.

.39 Sensitive items, such as password lists, are best kept in a secured area. Copies of all system and user documentation are kept in a secured area apart from where day-to-day business activities are conducted. Policies to ensure continuity of operations include cross-training personnel in several functions and requiring specified vacation policies.

Determining the Client's Risk Level

.40 Determining a client's risk threshold may not be easy. The determination is a combination of estimates, including the nature of the operations, possible financial exposure, the type and quality of employees, and the degree to which management is involved in day-to-day activities (including computerized operations). By calling the client's attention to potential problems and offering a range of acceptable solutions, with the cost-benefit relationship of each, the practitioner can focus on the risk level and appropriate security solutions.

.41 Exhibit 46-4, "Security Risk Matrix," illustrates some of the risks that may be uncovered in a microcomputer security review. It relates the risk exposure to the control category normally affected, with a typical control response shown to address the risk.

46/130 ENGAGEMENT OUTPUTS

.01 The engagement output from the review will include the final report, which details observations regarding security and presents recommended actions to secure the microcomputer environment. The report may describe security risks that the client is presently unwilling to change so that there will be a record that security risks exist and may result in some future business exposure.

.02 Depending on the results of the engagement, follow-up projects may be warranted. These can include the following:

- Develop policies and procedures for microcomputer use.
- Evaluate specific products that may be acquired to correct security deficiencies.
- Train client personnel to use security features in the existing systems.
- Develop tests to determine compliance with security policies and procedures.
- Establish a disaster recovery plan, especially for larger processing environments.

46/135 IMPLEMENTATION ASSISTANCE

.01 Having undergone a microcomputer security review, the client will likely want to ensure that recommendations are implemented and complied with over time. The practitioner formulates an implementation plan with management and participates, as much as possible, in implementing the recommendations.

.02 After implementing the recommendations, the client may wish to consider a postimplementation review to verify the results. The client may choose to perform periodic checkups of compliance with the security policies and procedures.

46/140 MARKETING A MICROCOMPUTER SECURITY REVIEW

.01 With the broad use of microcomputers in all companies, there are many opportunities to provide a security review service. The initial opportunity often results when a client has lost data files and lacks backup. But for all aspects of business exposure, the practitioner needs to raise the awareness of clients and professional staff members alike and stress their being alert to warning signs of improper security measures.

.02 Observations of security deficiencies made during an audit, consulting services engagement, or tax service can lead to engagements. A client's decision to buy new computers or replace an existing system is a clear signal to reexamine and possibly revise security controls. If a client moves the location of its computing operations, organizational changes may result. Such a move can imply further decentralization of computing operations and increased security risk.

.03 The security of a client's operation is the practitioner's continuing concern. The practitioner considers risk exposures for microcomputer resources on an ongoing basis.

APPENDIX 46

SAMPLE FORMS

Exhibit 46-1

Engagement Letter

CPA & Company
Anytown, USA 00000

January 1, 19XX

Mr. Robert Jones
ABC Company
100 Main Street
Anytown, USA 00000

Dear Mr. Jones:

This letter confirms our understanding that CPA & Company will assist you in performing a microcomputer security review of your operations. Our engagement will consist of the following:

1. We will review your microcomputer configuration and application systems to evaluate your current security environment.

2. Based on our review, we will recommend security measures that you may implement.

Because your company uses a local area network (LAN), we have engaged a LAN specialist to assist us with LAN security considerations.

We base our fees on time expended at our standard rate. We will bill you monthly for the work performed. Payment is due on receipt.

Please signify your acceptance of these terms by signing this letter and returning one copy to us.

Sincerely,

CPA & Company
Accepted by ______________________________

Date ____________________________________

Exhibit 46-2

Microcomputer Information Survey

1. Organization
   a. Name of company ______________________________
   b. Division names or ______________________________
      locations ______________________________
      ____
   c. Location of EDP, if any ______________________________
      Senior EDP representative ______________________________
   d. Attach a corporate and EDP organizational chart.
2. Equipment Configuration(s)

Description	*Quantity*	*Manufacturer*	*Model*	*Communications**	*LAN**	*Location*
File server						
CPU	______	______	______	______	______	______
Memory size	______	______	______	______	______	______
Disk size	______	______	______	______	______	______
Tape backup	______	______	______	______	______	______

(Where a LAN is used, describe the topology scheme. Provide a diagram of the equipment used [wiring paths, terminals, printers, communication interfaces, and so on].)

Personal computers						
CPU	______	______	______	______	______	______
	______	______	______	______	______	______
	______	______	______	______	______	______
	______	______	______	______	______	______

* Use a Y for yes if COM (communications) and LAN (on a network) are the case.

(Describe the general characteristics of each workstation in use in terms of memory size, disk capacity, and so on.)

Description	*Quantity*	*Manufacturer*	*Model*	*Communications*	*LAN*	*Location*
Printer	______	__________	_____	____________	____	_____
Other	______	__________	_____	____________	____	_____
	______	__________	_____	____________	____	_____
	______	__________	_____	____________	____	_____
	______	__________	_____	____________	____	_____

3. Software

	Manufacturer	*Name*	*Version*
Operating system			
File server	__________	____	_____
Workstation	__________	____	_____
Application systems			
Spreadsheet	__________	____	_____
Database	__________	____	_____
Word processing	__________	____	_____
Accounting			
Application 1	__________	____	_____
Application 2	__________	____	_____
Application 3	__________	____	_____
Application 4	__________	____	_____
Telecommunications	__________	____	_____
Other	__________	____	_____

(Provide diagrams of the applications used.)

4. Remote Databases

   a. List all remote public and corporate databases used.
   b. Identify any internal databases (or other applications) that outside users may interact with via telecommunications.

Exhibit 46-3

Microcomputer Security Work Program

Organization and Administration

1. Within the organizational structure of the company, describe the persons responsible for general security as well as microcomputer security. If a LAN is used, who serves as the network security officer?

2. Obtain all documentation on policies regarding security of data processing activities. If an EDP department exists, describe its relationship to microcomputer use in the company. Does it set policies and procedures for microcomputer acquisition, use, and security?

3. Describe the extent of custom programming for microcomputer systems. Is such programming done internally or contracted out to a consulting group?

4. What policies exist, if any, for the acquisition of packaged software systems? Are there approval requirements for such purchases?

5. Is a contingency plan for processing in place, or is one justified based on the client circumstances?

6. Are copies of critical software, data files, templates, and documentation stored off-site or in another acceptable location?

Operations—Processing Procedures

1. For transaction-processing systems, describe the procedures for user authorization (by application) on workstations. Who is responsible for determining work assignments and monitoring assignment completion?

2. Describe the password authorization system for—

   a. File server access.
   b. Application access (by task within each application).

3. Determine specific measures taken to secure key data files (by application) from unauthorized modification.

4. Determine that utility software exists for a variety of functions, such as restoring data from lost files, master files, or transaction files.

5. Identify other applications exposure areas that warrant security treatment.

Operations—Nontransaction-oriented Systems

1. Identify the other microcomputer-based applications that are not routinely processed, for example, spreadsheets, databases, and so on.

2. Describe the control procedures used to document, test, and retain these applications as a permanent record. Who is responsible for securing this information? Is off-site storage (separate from the end user) used?

3. Describe the password authorization procedures for these applications.

Access Controls—Hardware

1. Is there a physical inventory of all equipment used (including serial numbers)?

2. Are manufacturer's security locks used? Are keys stored under an adequate control procedure?

3. If a LAN is used, is physical access to the file server adequately controlled?

4. Is the workstation equipment adequately secured? Is access to work areas adequately controlled?

5. Are disks and other magnetic media secured to prevent unauthorized use?

Access Controls—Other

1. What security procedures exist to prevent unauthorized access to telecommunications? Is the access restricted during nonbusiness hours?

2. Are activities automatically logged according to type, time, and initiator?

3. Describe existing backup and recovery procedures. Has the company tested these procedures?

4. Describe the process for changing security access to microcomputer systems after someone has been terminated.

5. Describe the policy for password rotation.

Exhibit 46-4

Security Risk Matrix

Risk	*Segregation of Functions*	*Authorization of Transactions*	*Integrity of Information*	*Safeguarding of Assets*	*Continuity of Operations*
1. Vandalism or theft of a. Hardware				Physically secure equipment in work area. Inhibit or lock entry to computer and components (boards, switches, chips, etc.).	If complex environment, consider alternate site arrangement; if feasible, establish contingency plan, including expedited purchase and delivery arrangements.
b. Magnetic media				Maintain backup. Keep copies off-site (or on-site in fire-proof, lockable storage) under restricted control.	Maintain backup. Keep copies off-site in fireproof, lockable storage under restricted control.
2. Understaffing or terminations	Rotate job responsibilities. Owner-management has direct involvement in training.				Use well-supported systems. Use vendor training and support as key selection criteria
3. Lack of documentation					Document and retain up-to-date copies of systems developed in-house, templates, databases, etc. Keep copies off-site (or on-site in fireproof, lockable storage) under restricted access. Require that purchased packages

Risk	*Segregation of Functions*	*Authorization of Transactions*	*Integrity of Information*	*Safeguarding of Assets*	*Continuity of Operations*
					meet minimum documentation standards.
4. Errors or omissions a. Intentional		At minimum use passwords control at system level and at all levels if possible.	Monitor system log for unauthorized access. Use password control at each operating level. If LAN environment, restrict directories accessible to users based on authorized activities.		Back up.
b. Unintentional		Use password control at system application and task levels.			Back up.
5. Loss of data due to system problems				Maintain backup—periodic, from monthly to daily, or more frequently on sensitive data files.	Maintain off-site storage of data files.
6. Corruption or destruction of data files	Use access control at each operating level.	(See Segregation of Functions)	Encrypt passwords and files of sensitive applications. Use passwords and hardware cards that restrict access.		Back up all sensitive software and data files and control access to the backup.
7. Access by unauthorized users	Use password controls by job function.	Use password controls for individuals.	Limit physical access by using restraint key locks.		
8. Introduction of viruses to		Maintain policy restricting what information can be	Limit physical access by using restraint key locks.		

(continued)

Security Risk Matrix *(Continued)*

Risk	*Segregation of Functions*	*Authorization of Transactions*	*Integrity of Information*	*Safeguarding of Assets*	*Continuity of Operations*
software and data files		put on the system and by what sources. Obtain antiviral software to check new and existing software for viruses. Maintain strict control over master disks.			
9. Breach of confidentiality of information				Place restrictions on transportable files (magnetic media). Encrypt highly sensitive information.	
10. Loss of real-time systems					Institute contingency planning.
11. Loss of electrical power					Install uninterruptible power supply (UPS) and surge protectors. Have redundant backup.
12. Custom systems go out of business					Maintain contractual arrangements dealing with software source code and documentation under escrowing arrangements.

Note: This matrix does not contain all risks associated with microcomputer use.

GLOSSARY

application system A specific task-oriented system comprising numerous programs (for example, general ledger and accounts payable).

authentication The process of determining if the user trying to enter a particular system, program, or other device is authorized to do so.

call-back approach An authenticating procedure used in telecommunications that calls back the user once a request to use a system is made. This ensures that the user is working on an authorized hardware device or is in an authorized physical location.

directory A list of files (programs and data) stored on a hard or floppy disk.

electronic bulletin board Computer-based information, in the form of programs and files, that remote users can access via telecommunications.

encryption Using special algorithms to secure data (programs, data files, passwords) by scrambling it.

executable program A program that is in machine-readable form.

file server A computer on a network that acts as a host to nodes on a LAN. The server handles file management, input/output control, and network security.

local area network (LAN) A system of multiple, interconnected electronic devices.

menu User options, representing actions, that are displayed at the beginning of a program. Selecting a particular action initiates the next step in a program.

microcomputer A small stand-alone computer built around a microprocessor.

minicomputer A general-purpose computer similar to a mainframe computer in function, but with memory and speed between that of a microcomputer and a mainframe.

network A connection between two or more computers that allows information sharing.

operating system Software that controls the execution of programs and that may provide other system-management facilities, such as scheduling, input/output control, disk storage management, and related services.

password A key word or number code, known only to the authorized user that permits access to programs and files.

surge protector A device that detects irregular electrical patterns to prevent damage to a computer.

system administrator The person responsible for maintaining the computer system, including hardware and software assignments, updates, and problems.

telecommunications The process of transmitting information between separate facilities by electrical, optical, or acoustical means.

topology The arrangement of pathways in a network (for example, rings, in which messages pass through stations in turn; stars, in which messages pass through a central node; and buses, in which each message is presented to all nodes).

Uninterruptible power supply (UPS) A device that maintains electrical current for a predetermined period of time. It allows continuing operations or sufficient time for the user to power down until normal electrical supplies are restored.

virus An unauthorized program that enters a computer system and damages operating or application systems.

BIBLIOGRAPHY

Books

Halper, Stanley D., Glenn C. Davis, P. Jarlath O'Neil-Dunne, and Pamela R. Pfau. *Handbook of EDP Auditing*. New York: Warren, Gorham & Lamont, 1985 (Supplement, 1987).

Johnson, Kenneth P, and Henry R. Jaenicke. *Evaluating Internal Control.* New York: John Wiley & Sons, 1980.

National Institute of Standards and Technology. *Security of Personal Computer Systems.* Special Publication 500-120. Gaithersburg, Md.: NIST, 1985.

Periodicals

Computerworld (weekly)

EDP Auditor Journal (published by the EDP Auditors' Foundation, Inc.)

LAN Magazine (monthly)

PC Magazine (semimonthly, published by Ziff-Davis Publishing Co.)

PC Week (published by Ziff-Davis Publishing Co.)

PC World (monthly)

VI Operations Services

Part VI—Operations Services

60/100 OPERATIONAL AUDIT ENGAGEMENTS

CONTENTS

60/100 OPERATIONAL AUDIT ENGAGEMENTS

60/105 INTRODUCTION

.01 Internal auditors, governmental auditors, and independent public accountants are frequently asked to evaluate the economy, efficiency, and effectiveness of an organization's operations. These services are known by a variety of terms, such as *operational audits, operational reviews, performance audits, management audits,* and *comprehensive audits.* Distinctions can be drawn between some of these terms, but the most commonly used is *operational audits.*

.02 Kohler defines the term *operations* as "the activities of an enterprise, exclusive of financial transactions and those of an extraordinary character; as production, or the rendering of service, distribution or administration."[1] *Operational* means pertaining to operations.

.03 Although the performance of operational audits by CPA firms is not a new service, the special committee believes that independent public accountants will increasingly be asked to provide this service for their private-sector and governmental clients. A request for an operational audit should, therefore, be understood as referring to a specific kind of engagement, with specific understandings about what such an engagement involves.

.04 To understand the need for operational audits, one must recognize that boards of directors, elected officials, and senior management are being held to high standards of accountability and responsibility for stewardship. In such an environment, executives and managers frequently request independent evaluation and advice. Although they may have no reason to believe that problems exist, they realize that an objective review and resulting recommendations can benefit the organization.

.05 The pressure for increased emphasis on economy, efficiency, and effectiveness of operations continues, and the experience gained in public accounting in the diagnostic and fact-finding aspects of financial auditing and consulting services provides an excellent background for performing operational audits. This section should help practitioners to recognize the opportunities, as well as the special challenges, of operational audit engagements. It defines and describes operational audit engagements as generally conducted by independent public accountants.

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[1] Eric Kohler, *A Dictionary for Accountants* (Englewood Cliffs, N.J.; Prentice-Hall, Inc., 1975).

Definition of an Operational Audit Engagement

.06 An operational audit engagement is a distinct form of consulting service that may also have some of the characteristics of a financial audit engagement. It involves a systematic review of an organization's activities, or of a stipulated segment of them, in relation to specified objectives. The purposes of the engagement may be (*a*) to assess performance, (*b*) to identify opportunities for improvement, and (*c*) to develop recommendations for improvement or further action.

.07 Some of the key terms in this definition are discussed below.

.08 *Systematic review.* A systematic review refers to an orderly, planned, objective observation and comprehensive analysis of the operations in question. To evaluate whether there is adequate support for management's planning, executing, and controlling functions, the operational auditor may review the policies, activities, systems, procedures, and results. An operational audit requires a review more comprehensive than an analysis of financial results and reports.

.09 *Stipulated segment.* Although the subject of an operational audit may be the operation of an entire organization, it is common to restrict the work to the activities of a segment of the organization. The segment can be an organizational unit, such as a division, plant, department, or branch, or a function, such as marketing, production, or data processing.

.10 *Specified objectives.* Certain specified objectives of the organization, or of a stipulated segment, generally provide the starting point for an operational audit. However, these objectives often need to be defined more precisely. Occasionally, the party engaging the practitioner, either the organization to be reviewed or a third party, may require assistance in defining the operations' objectives. In such instances, the practitioner may supply assistance, but the responsibility for the specified objectives would rest with the engaging party.[2] The effort required to define the objectives may be of sufficient magnitude to require a separate engagement.

.11 During an operational audit, questions may arise about the appropriateness of the specified objectives, and conflicting objectives may also emerge. The operational audit report may address those matters whether or not assistance was provided in determining the specified objectives.

.12 *Purposes.* Operational audit engagements usually are performed to satisfy a combination of the three purposes cited in the definition: to assess performance, to identify

[2] The term *client* is ordinarily associated with the entity being audited. Therefore, the use of that term may be confusing in reference to an operational audit, since the engaging party and the entity to be reviewed may not be the same. When this distinction is important, the term *engaging party* is used.

opportunities for improvement, and to develop recommendations for improvement or further action. In some engagements, one of the purposes may take precedence over the others.

- *Assess performance.* Any operational audit involves an assessment of the reviewed organization's performance. To assess performance is to compare the manner in which an organization is conducting activities (*a*) to objectives established by management or the engaging party, such as organizational policies, standards, and goals, and (*b*) to other appropriate measurement criteria.

- *Identify opportunities for improvement.* Increased economy, efficiency, or effectiveness are the broad categories under which most improvements are classified. The practitioner may identify specific opportunities for improvement by analyzing interviews with individuals (whether within or outside the organization), observing operations, reviewing past and current reports, studying transactions, making comparisons with industry standards, exercising professional judgment based on experience, or other appropriate means.

- *Develop recommendations for improvement or further action.* The nature and extent of recommendations developed in the course of operational audits vary considerably. In many cases, the practitioner may be able to make specific recommendations. In other cases, further study, not within the scope of the engagement, may be required, and the practitioner may simply cite reasons why further study of a specific area may be appropriate.

Benefits of an Operational Audit Engagement

.13 Depending on its scope, an operational audit engagement may provide some or all of the following benefits, not all of which may have been stated as specific engagement objectives:

- Identification of previously undefined organizational objectives, policies, and procedures
- Identification of criteria for measuring the achievement of organizational objectives
- An independent, objective evaluation of specified operations
- Assessment of compliance with organizational objectives, policies, and procedures
- Assessment of the effectiveness of management control systems
- Assessment of the reliability and usefulness of management reports
- Identification of problem areas and underlying causes
- Identification of potential profit improvement, revenue enhancement, and cost reduction or containment areas
- Identification of alternative courses of action

Characteristics of Operational Audit Engagements

.14 It is logical that CPAs should be asked to conduct or participate in operational audit engagements because they possess certain applicable skills, an insight into business operations, and an appreciation for the relationship between financial and operating controls. Operational and financial audits share many common activities, including—

- Planning, control, and supervision.
- Fact finding, analysis, and documentation.
- Development of recommendations.
- Reporting of results.

.15 Each of these activities is familiar to CPAs, who, because of their education and experience, can bring professional competence to the performance of operational audits.

.16 In specific engagements, however, additional expertise may be needed to supplement the CPA's skills. Certain consulting services specialists on a CPA firm's staff may possess the needed skills, or assistance may be obtained from other CPA firms, academicians, consulting firms, or other sources. It is important to possess or be able to obtain the necessary competence to perform the in-depth fact finding and analysis required for the specific operations to be reviewed.

.17 An operational audit is significantly different from an audit of financial statements. The purpose of the financial audit is the expression of an opinion on the entity's historical financial statements. Although a financial audit may result in a management letter containing certain comments and suggestions, and although the techniques used in developing the comments and suggestions may be similar to those used in an operational audit engagement, such techniques are applied to a significantly lesser extent than in an operational audit.

.19 The purposes of an operational audit engagement are to assess performance, to identify opportunities for improvement, and to develop recommendations. An operational audit engagement usually does not include assistance in implementing the recommendations. Frequently, however, the report recipients may seek implementation assistance subsequent to the operational audit engagement.

.20 Since the purposes of an operational audit engagement are to assess performance, to identify opportunities for improvement, to develop recommendations, or some combination thereof, there can be considerable variation between different operational audit engagements. At one extreme would be an engagement undertaken at the request of a third party, such as a regulatory body, resulting in a report concerned solely with assessing the performance of an organization. At the other extreme might be an engagement to develop in-depth recommendations concerning ways in which severe operating problems may be corrected. Between the two extremes, the practitioner may be asked to review operations and to report weaknesses but to spend little time developing recommendations. Most engagements reflect a combination of purposes.

.21 Because the purposes of an operational audit can vary so much, it is important to carefully prepare an engagement letter to prevent any misunderstanding about the purpose of the specific engagement. The purpose of the engagement will bear directly on the skills required to undertake the engagement.

Operational Audit Engagements and Independence

.22 Because an operational audit engagement is a form of consulting services that may also have some of the characteristics of a financial audit engagement, practitioners should consult appropriate standards for guidance in such engagements and should also consider, where applicable, the requirements of relevant auditing standards and the related guidance in AICPA statements on auditing standards. CPAs will note that the Statement on Standards for Consulting Services requires integrity and objectivity but does not specifically address independence, as defined in rule 101 of the AIPCA Code of Professional Conduct and interpretations thereof. It is recommended that a CPA who is not independent within the meaning of the second generally accepted auditing standard, or who has a relationship which may be perceived to significantly impair independence in mental attitude in the context of an operational audit engagement, should disclose this fact when taking the engagement, and in the report, to prevent misunderstanding.[3]

60/110 ARRANGEMENTS FOR OPERATIONAL AUDIT ENGAGEMENTS

.01 Before beginning an operational audit engagement, the practitioner usually does the following:

- Identifies the purpose of the engagement (assessing performance, identifying opportunities for improvement, developing recommendations for improvement or further action, or some combination thereof) and the specific benefits expected to be obtained and considers their achievability.
- Considers whether the scope of the engagement is sufficient to permit a substantive review of the function or activity being examined.
- Determines whether the individual or entity requesting the service has the authority to do so.

[3] The second generally accepted auditing standard states, "In all matters relating to the assignment, an independence in mental attitude is to be maintained by the auditor or auditors."

- Considers whether individuals assigned to perform the engagement possess competence in the technical subject matter under consideration.

- Reaches an agreement with the engaging party about the nature and scope of the work to be performed, the approach to be followed, and the nature of engagement reports. This agreement or understanding is usually in writing, in the form of a proposal, contract, or letter.

Purpose of the Engagement

.02 It is important that there be an understanding of the purposes of the operational audit engagement and the anticipated benefits, since both may vary from one engagement to another. A particular objective would not affect the scope or approach of the engagement but might result in a different emphasis in the time to be allotted to various aspects of the engagement and to the contents of the report.

Sufficient Scope

.03 Many operational audit engagements are limited to stipulated segments or functions of an organization. Practitioners should consider the potential impact of any limitation placed on the scope of their work or their ability to satisfy the purposes of the engagement. They may conclude that the limitations significantly reduce the likelihood that the engagement will produce its expected benefits. In such circumstances, further discussion of the scope of the engagement with the engaging party is appropriate.

Authority for Requesting Operational Audits

.04 A practitioner who is requested to perform an operational audit needs to determine that the engaging party has the proper authority and that the organization to be reviewed will cooperate to the extent necessary for successful completion of the engagement.

Knowledge and Experience

.05 An effective operational auditor need not be expert in all the areas under review, but the capability to recognize when special knowledge or experience is required is important. Operational audits may require the application of diverse kinds of technical, functional, and industrial or governmental program knowledge and experience, and the practitioner should consider whether the needed expertise for the operational audit will be available.

Cooperative Engagements

.06 In certain circumstances, it may be appropriate to use other professionals who might not be on the practitioner's staff (for example, engineers, actuaries, or physicians) to perform certain aspects of an operational audit. The considerations identified in section 5/110, "Cooperative Engagements and Referrals" are appropriate in those circumstances. However, the Statement on Auditing Standards no. 11, *Using the Work of Specialists,* may provide useful guidance when items a and b of the following apply:

.07 Proposals and reports for cooperative engagements will typically be issued in one of the following manners:

a. The practitioner issues the proposal or report, assuming full responsibility for the work of other participants. This is appropriate when the CPA is the prime contractor and is competent to evaluate other participants' work.

b. The practitioner issues the proposal or report specifically identifying those aspects of the engagement for which other participants as experts are responsible. This is appropriate when the CPA is the prime contractor.

c. Another participant issues the proposal or report, either assuming full responsibility for the practitioner's work or identifying those aspects of the engagement for which the practitioner is responsible. This is appropriate when the practitioner is a subcontractor.

d. A joint proposal or report is issued by participants, with each participant's scope of work clearly defined. This could be appropriate when the involvement of each participant is significant.

e. Separate proposals or reports are issued. This is appropriate for proposals or reports involving cooperative participation without a contractual relationship among participants, when separate reports appear desirable and are acceptable to the client, or when separate reports are requested by the client.

For all engagements in which the client is aware of a practitioner's participation, the practitioner should retain and exercise the right to review the proposal and any subsequent presentation of the findings and conclusions.

.08 If a CPA has primary responsibility in a cooperative engagement, the role and responsibilities of any significant subcontractors need to be defined and agreed to in advance.

Engagement Agreement

.09 The engagement agreement for an operational audit may take the form of a proposal letter, contract, or confirmation letter. It serves to establish an understanding of numerous engagement aspects, such as

- Purposes of the operational audit
- Background of the engagement
- Scope of the review
  - — Areas or activities included or excluded
  - — Sources and possible limitations of relevant data
  - — Other anticipated limitations
- Approach or work plan to be followed
- Evaluative criteria to be used
- Course of action to be followed in the absence of criteria
- Nature of end products to be expected from the operational audit, particularly with respect to whether, and to what extent, recommendations for corrective actions are to be included
- Special understandings, if any (for example, that the CPA is, or is not, independent under rule 101 of the rules of conduct or that the CPA will not express an opinion on the overall level of efficiency and economy that the organization achieves in using its resources to carry out operations)[4]
- Staffing, including information about subcontractors or other outside specialists involved and the scope of their work
- Extent of client involvement
- Estimated time and fee
- Billing arrangements
- Progress reports

[4] In some circumstances, the engaging party may expect the same degree of independence required of a CPA performing a financial audit or review engagement and may desire a statement on independence in both the engagement agreement and the engagement report. In other cases, in which the CPA is not independent, a statement of that fact may be desirable to avoid any assumption of independence.

- Report distribution

- Follow-up arrangements

60/115 OPERATIONAL AUDIT ENGAGEMENT ACTIVITIES

.01 Although all operational audit engagements differ in their details, the following activities are of particular importance:

- Planning, control, and supervision

- Fact finding, analysis, and documentation

- Recommendation

- Reporting

Planning, Control, and Supervision

.02 These activities include development of a work program, scheduling of the work to be done, selection of the appropriate staff, decisions about the involvement of the organization's personnel, direction and monitoring of the work, and provision for review of workpapers and reports.

.03 A work program is developed in accordance with the purposes of each engagement and is tailored to the organization to be reviewed. In developing the work program, consideration is given to the appropriate sequence of specific tasks, the required research (both internal and external), and the people to be interviewed.

Fact-Finding, Analysis, and Documentation

.04 An operational audit involves steps to become familiar with the organization under review. This usually includes the attainment of knowledge about the nature of the organization and its products or services, objectives, policies, systems, procedures, methods, and results relating to the operations under study. If only a segment of an organization is being studied, an understanding of its relationship to other segments of the organization is desirable. The procedures employed in an operational audit depend on the circumstances, but they generally include interview, observation, substantiation, documentation, and analysis.

.05 Effective interviewing is essential to the successful conduct of an operational audit engagement. It is a direct way to gather information. Manuals, reports, and similar materials may not reflect the actual organization, activities, policies, and procedures of the entity at the time of the study. Moreover, interviewing will provide insight into problems as seen by those who must live with them on a day-to-day basis. A practitioner will often find the comments, impressions, and suggestions of the organization's management and staff to be invaluable in providing clues to weaknesses and opportunities for improvement.

.06 Observation of operations provides an effective means of seeing what is actually being done in relation to what is supposed to be done and whether it needs to be done at all. Observation helps the CPA to understand whether policies and procedures are necessary, appropriate, and effective.

.07 Analysis involves study and measurement of performance in relation to various criteria to determine the extent to which specified organizational objectives are achieved. Where the objectives are not fully achieved, the practitioner may also estimate the degree of risk to the organization or the degree of inefficiency. Analysis may also include the development of alternative recommendations.

.08 Documentation consists of the retention of material that bears significantly on engagement conclusions and recommendations. The form of documentation will vary from engagement to engagement and may consist of such items as charts, schedules, interview notes, forms, manuals, analyses, reports, and memoranda. Documentation materials reflect the fact-finding activities, the analytical process applied by the practitioner, and conclusions and recommendations, as appropriate. Forms that practitioners may find useful for conducting a diagnostic review of an organization's operations are provided in appendix 60/C.

Recommendation

.09 When the purpose of an operational audit engagement includes the development of recommendations, that portion of the report is frequently of greatest value to the client. Findings often confirm problems that management already believes exist. Recommended solutions provide new ideas.

.10 Depending on the purpose and scope of the engagement, recommendations may range from a complete plan of action to suggestions for further study in specific areas. The development of appropriate alternative solutions and recommendations for specific courses of action can require considerably more time and effort than identification of the problems. Therefore, there should be agreement at the outset of the engagement about the amount of effort to be expended in developing recommendations. That way, the engaging party does not expect more than will be provided.

.11 Implementation assistance is not usually a part of an operational audit engagement. A follow-up engagement for that purpose may be appropriate.

Reporting

.12 The operational audit report varies with the circumstances and the needs of the engaging party, as agreed to before the engagement.

60/120 CONDUCT OF AN OPERATIONAL AUDIT ENGAGEMENT

.01 Depending on the purposes and scope of a particular operational audit engagement, the following are among matters that may receive special attention during the fact-finding and analysis phases:

- The organization's goals, objectives, and policies
- Organizational structure
- Management and operations personnel
- Purposes served by functional activities
- Products or services
- Locations, facilities, and equipment
- Relationships with other organizations, units, governmental entities, customers, suppliers, unions, and so forth
- External factors, such as markets, competition, state of the economy, and availability of raw materials
- Operating and administrative control systems
- Management information systems
- Administrative and production systems and procedures
- Internal and external communications
- Use and safeguarding of resources
- Productivity of equipment and personnel
- Nature and cast of services or products provided
- Results (profits or services rendered)

.02 The matters to be reviewed and the extent of the review are predicated on the agreement between the practitioner and the engaging party regarding the scope of the engagement. If an organization's operations, as a whole, are to be reviewed, all of these matters may be included. If a stipulated segment of the entity is to be reviewed, some of the listed items may not apply.

Criteria for Identifying Improvement Opportunities

.03 Whenever possible, the practitioner should measure the activities under study against objective, relevant, accepted criteria (yardsticks of efficiency, effectiveness, or results) to support judgmental conclusions and recommendations. The practitioner may derive relevant standards of performance from (*a*) internally generated measurement yardsticks, such as stated goals, objectives, historical results, policies, procedures, pronouncements, commitments, budgets, corporate plans, and capacities, (*b*) externally generated measurement yardsticks, such as legislative language, contractual terms, industry standards, productivity studies, trends and comparative performance, and authoritative publications, and (*c*) previous engagements involving similar operations. Depending on the circumstances, the practitioner may agree with the engaging party to rely on either internal or external criteria alone. It is preferable to use objective, documentable standards, since these give the findings a more authoritative foundation and enhance credibility and acceptance.

.04 Measurement criteria may be supplied by the engaging party or, in the absence of such criteria, developed by the operational auditor, subject to acceptance by the engaging party. Significant development work generally entails an expansion of the engagement's scope or a separate engagement.

.05 Selection of the criteria to be used is particularly important when an assessment of current performance is to be reported. Criteria appropriate for that purpose need to be unbiased, relevant, and sufficient to support the conclusions and recommendations. It would be appropriate for the practitioner and the engaging party to discuss the measurement criteria before the practitioner uses them as a basis for evaluating a specific activity.

Work Program

.06 Although the scope and extent of an operational audit engagement differ in each case, the general sequence of activities outlined below provides information useful in developing a work program.

.07 A preliminary survey of the operations is a very useful preparation for developing a detailed work program in which subsequent phases of the operational audit are more specifically defined and planned. This is particularly important when the scope of the engagement is broad or the time available for the engagement is to be spent in ways deemed most likely to produce significant findings and recommendations.

.08 The work program may be subject to numerous changes during the engagement as new findings result from field study and analysis.

.09 The following listing of frequently encountered operational audit activities is divided into five phases. The decisions about which activities would apply to a specific engagement, and to what extent, depend on the terms of the engagement and the practitioner's on-site judgment.

.10 Phase 1—Orientation.

- Determine organization history, objectives, structure, functions, products or services, and programs.
- Review available data on industry, functions, products or services, and programs.
- Review organizational charts, policy statements, procedure manuals, performance standards, past performance data, applicable laws and regulations, and other pertinent data.
- Review the business plan, financial statements, and forecasts.
- Review internal management reports, internal and independent audit reports, consultants' reports, management letters, and so forth.

.11 Phase 2—Field Study.

- Interview key personnel at all organizational levels. Identify and interview external sources of pertinent information if this can be done without violating the confidentiality of the engagement.
- Observe operational activities, including work flow.
- Review internal control systems and reports (financial and administrative, including productivity).
- Review transaction flow.
- Review staffing, equipment, forms, and reports.
- Review key aspects of such functional activities as purchasing, personnel, EDP, production, accounting, marketing, or industry and government program areas, using specially prepared or standard questionnaires, as appropriate. (Sample forms designed to assist the practitioner in conducting a diagnostic review of these and other areas of an organization are provided in appendix 60/C.)
- Discuss proposed use of measurement criteria with appropriate personnel.

.12 Phase 3—Analysis.

- Relate collected data to performance measurement criteria, when appropriate.
- Assess business risks and inefficiencies to determine areas and activities in which performance may be improved; document findings and potential benefits.

- Reconfirm measurement criteria with appropriate personnel.
- Discuss findings and improvement opportunities with appropriate personnel.
- Develop alternatives, recommendations, and suggestions for further study related to key improvement opportunities.

.13 Phase 4—Final Report Preparation and Presentation.

- Organize and draft the report of findings, recommendations, and benefits.
- Develop an implementation plan and timetable for recommendations, if appropriate.
- Discuss the draft with appropriate executives and managers of the reviewed organization and, if different, the engaging party.
- Present the final report.

.14 Phase 5—Follow-up (if requested).

- Revisit the organization to discuss corrective action taken or proposed.

60/125 REPORTING OPERATIONAL AUDIT FINDINGS AND RECOMMENDATIONS

.01 A report resulting from an operational audit engagement is intended to provide an understanding of the facts and the rationale for the conclusions and recommendations. The report usually is addressed to the persons with whom the arrangements for the engagement were made, which could be a board of directors, a senior executive, or a third party.

.02 The CPA ordinarily distributes the report only to the addressee. Any further distribution is made by the engaging party or at its direction. The CPA usually does not place a restriction on the report's distribution.

.03 Discussion of drafts of pertinent sections with appropriate officials or executives helps to ensure the accuracy of facts and to facilitate understanding and acceptance of the report by those to whom it is directed. Management's response to the report or management's comments may be included with the report or presented in a separate letter or report.

Content of the Report

.04 Although operational audit reports vary in format, a report generally contains the following elements:

- Engagement objectives, scope, and approach
- Specific findings and recommendations

It may also include an executive summary of the contents and conclusions if the report is lengthy or detailed.

.05 **Engagement Objectives, Scope, and Approach.** It is unlikely that all the activities in an enterprise would be covered in a single engagement or that every possible review procedure would be performed. A summary of the agreed-upon objectives and scope provides the reader with a framework for considering the findings and recommendations. A description of any limitations on the engagement imposed by the engaging party should be included. A general description of the procedures (interviewing, flowcharting, and so on) is often useful. This section might include a discussion of the rationale for selecting particular procedures and a description of the origin and application of the measurement criteria. A reminder that an operational audit report generally focuses on weaknesses and areas for improvement, rather than on the many strengths of the organization, may be appropriate.

.06 **Specific Findings and Recommendations.** The structure of the report is not as important as the content. For example, the report may be organized by operation or subject (such as organization, data processing controls, and productivity). The related findings and recommendations would be presented in each section.

.07 Some operational audit engagements, particularly those sponsored by third parties, may not include the development of recommendations. In such cases, the specific findings might consist of an assessment of performance, with no recommendations for improving performance.

.08 More frequently, specific recommendations are included in the report. The nature, number, and detail of recommendations involve the exercise of professional judgment based on the purpose and scope of the engagement and the information gathered and conclusions reached during the course of the review. Recommendations are not always limited to matters that can be determined objectively.

.09 The report may include recommendations for further study of areas that were not subjected to a sufficiently detailed review or of areas where appropriate recommendations were not developed due to the constraints of the engagement. Generally, a recommendation for further study is supported by an explanation of why it would be beneficial.

.10 It may be appropriate to state that the report's findings and conclusions are based on the organization's operations during a specified period.

.11 Except in those rare circumstances in which overall measurement criteria have become generally accepted, the report does not contain an overall opinion on the results of an operational audit engagement. A financial audit report normally includes a standard accountant's report, which contains the CPA's opinion, unless it specifically states that no opinion is expressed. An operational audit engagement report usually contains no similar expression of opinion but instead comments on specific findings.

.12 Appendix 60/A provides an illustration of the kind of introductory language that might appear in a report on an operational audit engagement. Appendix 60/B provides summaries illustrating a variety of operational audit engagements and the variety of data that might be included in an operational audit report. The reports for these engagements range from a dozen pages to several volumes containing several hundred pages. These sample engagements are not intended to be models of the format of an operational audit report.

APPENDIX 60/A

ILLUSTRATIVE INTRODUCTORY LANGUAGE FOR AN OPERATIONAL AUDIT REPORT

To the Report Recipient
The Engaging Party
Anytown, USA 99999-1234

In December 19XX, we concluded an operational audit of XYZ (company, department, and so forth).

Objectives, Scope, and Approach

The general objectives of this engagement, which were more specifically outlined in our letter dated September 20, 19XX, were—

- To document, analyze, and report on the status of current operations.
- To identify areas that require attention.
- To make recommendations for corrective action or improvements.

Our operational audit encompassed the following units: Branch A, Branch B, and Branch C, and the entire home office operation. Our evaluations included both the financial and operational conditions of the units. Financial data consulted in the course of our analyses were not audited or reviewed by us, and, accordingly, we do not express an opinion or any other form of assurance on them.

The operational audit involved interviews with management personnel and selected operations personnel in each of the units studied. We also evaluated selected documents, files, reports, systems, procedures, and policies as we considered appropriate. After analyzing the data, we developed recommendations for improvements. We then discussed our findings and recommendations with appropriate unit management personnel, and with you, prior to submitting this written report.

Findings and Recommendations

All significant findings are included in this report for your consideration. The recommendations in this report represent, in our judgment, those most likely to bring about beneficial improvements to the operations of the organization. The recommendations differ in such aspects as difficulty of implementation, urgency, visibility of benefits, required investment in facilities, and equipment or additional personnel. The varying nature of the recommendations, their implementation costs, and their potential impact on operations should be considered in reaching your decisions on courses of action.

APPENDIX 60/B

ILLUSTRATIVE OPERATIONAL AUDIT ENGAGEMENT SUMMARIES

Exhibit 60B-1

Illustrative Engagement Summary—Mass Transit Company

Type of organization

Corporation owned by the city with a board of directors.

Background of operational audit

The transit company receives substantial amounts of funding from the state and federal governments. Under state law, each region's transportation planning agency is responsible for ensuring that operational audits are conducted of transit operators in the area receiving state funding.

Principal recipients

Board of directors of organization audited.

Transportation planning agency requesting audit.

Purpose

To assess performance.

Objective

To provide an independent evaluation of the efficiency and effectiveness of the mass transit company.

Scope

Operations for one year—19YX—were reviewed.

Operations of three functional areas—Maintenance, Safety Management, and Claims Management—were studied in depth.

Operations of eight other functional areas—Service Planning, Transportation Operations, Fare Structure Management, Marketing and Public Relations, Budgeting and Financial Planning, Management Reporting, Purchasing, and Personnel Management—were reviewed.

General procedures-approach to conducting the engagement

Through conducting interviews and reviewing documentation, questions designed to identify the key criteria/performance measures for each functional area were answered. The key criteria/performance measures questions were derived from a transit operators' operational audit guide, which has been prepared for the regional transportation agency. For those functional areas selected for detailed study, additional interviews and tests were conducted to probe each of the criteria/performance measures in greater depth.

Measurement criteria

The state (California) had defined performance indicators intended as overall measures of transit operators' efficiency and effectiveness. The engagement included reviewing the operators' performance for each of the following indicators:

Efficiency

- Cost per vehicle service hour
- Cost per vehicle service mile
- Cost per passenger
- Service hour per employee

Effectiveness

- Passengers per vehicle service mile
- Passengers per vehicle service hour

Specific findings and recommendations

Findings and recommendations were presented for each functional area examined.

Special comments and limitations

The report does not contain an overall opinion on the efficiency or effectiveness of the transit company.

The section of the report presenting measurement criteria notes that the amounts are based on data provided by the transit company and have not been audited or reviewed.

The section also notes the limitations of using measurement criteria in comparing the performance of one organization to another. The report identifies a number of factors that must be considered in the comparison—service area population, service area miles, age of systems, number of vehicles, and types of service—and concludes that a mere numerical comparison of the performance indicators of the transit operators in the geographic region does not afford a valid comparison of their relative efficiency and effectiveness.

Exhibit 60B-2

Illustrative Engagement Summary—Data Processing Department

Type of organization

Financial institution.

Background of operational audit

The senior management of the organization was concerned that the data processing department was not operating effectively.

Principal recipients of operational audit report

President, executive vice president, and vice president—data processing.

Purpose

To assess performance, identify opportunities for improvement, and outline recommendations for improvement.

Objective

To assess the adequacy of data processing operations in meeting the needs of the organization.

Scope

The review included administration, organization, user evaluation, planning and operations, hardware utilization, data communication and information resource management.

General procedures-approach to conducting engagement

Key users in the organization were interviewed.

Major documents were reviewed, including plans, budgets, employee training records.

Actual operations were observed over a period on a random basis.

Hardware records on usage were analyzed.

Measurement criteria

The areas contained in the AICPA publication, *Operational Reviews of the Electronic Data Processing Function.*

Specific findings and recommendations

Findings and recommendations were presented in five major categories: Administration, Organization, Planning, Hardware, Utilization, and Information Resources.

Special comments and limitations

None.

Exhibit 60B-3

Illustrative Engagement Summary—County Government

Type of organization

Elected county board and elected and appointed officials for each operating department/office.

Background of operational audit

Budget overruns resulted in seeking help in containing increasing costs of operations in relation to services provided.

Principal recipients of operational audit report

All members of the county board.

Purpose

To identify opportunities for improvement and outline recommendations for improvement.

Objective

To determine the effectiveness of current methods and procedures in the delivery of public services.

Scope

The review included all work-related activities in the elected offices of the auditor, county clerk, circuit clerk, circuit court, coroner, county board, recorder, sheriff, state's attorney, and treasurer and the departments of appointed officials including animal disease control, supervisor of assessments, building and maintenance, civil defense, detention, education, health, highway, industrial development and planning, jury commission, microfilm and printing, nursing home, probation, and radio.

General procedures-approach to conducting engagement

Position description questionnaires were completed by each employee.

Selected employees were interviewed in depth to determine reporting relationships, work flow requirements, duties, and responsibilities.

Observations were made of the methodology used in performing assigned duties and responsibilities.

Written policies and procedures were reviewed.

Measurement criteria

Minimum requirements of applicable county, state, and federal laws, rules, and regulations.

Comparative analysis with performance standards for similar work activities performed by other governmental units and private industry.

Accuracy and timeliness or work output.

Use of management tools for planning, scheduling, and controlling work activities.

Availability of data/information for management of county functions.

Specific findings and recommendations

High cost of data processing operation in relation to other alternatives.

Unreliable output from data processing vendor and underutilization of data processing resources.

Duplication of clerical work activities.

Underutilization of personnel and equipment within certain departments.

Lack of coordination of available personnel within various offices.

Insufficient cost accounting system for controlling highway project costs.

Lack of planning and scheduling of work activities.

Absence of any formal training program.

Special comments and limitations

None.

Exhibit 60B-4

Illustrative Engagement Summary—Manufacturer of Pre-insulated Pipe

Type of organization

Private closely held corporation.

Background of operational audit

Audit was requested by the president, who questioned the efficiency of current office procedures.

Principal recipients of operational audit report

President and office manager.

Purpose

To identify opportunities for improvement and to develop detailed recommendations for improvement.

Objective

To determine ways in which office procedures may be streamlined to improve efficiency and effectiveness.

Scope

The review included all activities performed by the seven people in the office, excluding the marketing functions.

General procedures-approach to conducting engagement

Office personnel were interviewed to determine their duties.

Paperflow was flowcharted.

Reports resulting from the office procedures in use were reviewed.

Interview notes, flowcharts, and reports were analyzed to develop findings.

Measurement criteria

Are the same data being recorded more often than necessary?

Are unused copies being created?

Are unnecessary multiple files being maintained?

Is paperwork being handled by too many people?

Specific findings and recommendations

The report provided a series of specific procedural recommendations in response to findings.

Special comments and limitations

The study was limited to office procedures only.

Although implementation of recommendations could have resulted in reduced office staff, the owners chose to retain their personnel.

Exhibit 60B-5

Illustrative Engagement Summary—Public Utility

Type of organization

Investor-owned utility.

Background of operational audit

The Public Service Commission requested an evaluation of the efficiency and effectiveness with which the company was being managed.

Principal recipients of operational audit reports

Public service commission members.

Purpose

To assess performance, identify opportunities for improvement, and develop recommendations for improvement.

Objective

To evaluate current operational efficiency and effectiveness and present ways in which it might be improved.

Scope

The review included all organizational and functional areas.

General procedures-approach to conducting engagement

Management efforts to minimize revenue requirements were evaluated.

A financial and statistical profile (seven-year period) was developed.

Current practices, procedures, and results were documented.

Areas of good practice were documented and areas for improvement were identified.

An in-depth study of areas for improvement was conducted.

Measurement criteria

Internal comparisons-unit price levels and resource units per workload unit experienced by the utility for each year of the review period by cell matrix (function/resource matrix), and among like organizational units of the utility.

External comparisons—comparison of price levels with market indices and similar utilities: comparison of resource units per workload unit with similar utilities

Specific findings and recommendations

The report provided a summary of overall impressions, significant conclusions for each functional area, recommendations, and a plan for implementation.

Special comments and limitations

The report addressed the rationale for the approach and conclusions.

Exhibit 60B-6

Illustrative Engagement Summary—Federal Agency

Type of organization

Provides loans to individuals and organizations meeting specific qualifications.

Background of operational audit

The agency was requesting additional personnel to perform activities. The Office of Management and Budget questioned the necessity and ordered a study to determine whether the loan servicing functions and activities were efficient and effective.

Principal recipients of operational audit report

Agency management and Office of Management and Budget.

Purpose

To assess performance and identify opportunities for improvement.

Objective

To determine if existing loan servicing procedures are appropriate in light of private industry practices and standards.

Scope

The review included a significant sample of agency regional office activities and the activities of a sample group of private industry lenders.

General procedures-approach to conducting engagement

Agency loan files were reviewed, practices were discussed with loan officers, a questionnaire on servicing activities was completed, and activities were observed.

Private industry lenders were interviewed and they completed a questionnaire on their servicing activities.

Measurement criteria

Comparison of the activities performed by the government agency to those performed by private industry.

Subjective evaluation by the review team, based upon their background and experience.

Specific findings and recommendations

With few exceptions, the study confirmed the high quality of agency procedures and their implications for additional staff. The appropriateness of the agency maintaining certain loan programs was questioned.

Special comments and limitations

None.

Exhibit 60B-7

Illustrative Engagement Summary—City Government

Type of organization

Commission form of government (mayor plus four commissioners).

Background of operational audit

Finance commissioner wanted recommendations for reducing operating costs.

Principal recipients of operational audit report

City Council.

Purpose

To assess performance, identify opportunities for improvement, and outline recommendations for improvement.

Objective

To determine efficiency and effectiveness of current work-related activities in the delivery of city services.

Scope

The review included all operating departments, such as police, fire, health, finance, streets, sewers, garbage, planning, motor vehicle, and human resources.

General procedures-approach to conducting engagement

Recently completed job descriptions were reviewed to identify duties and responsibilities of employees/departments.

Selected employees were interviewed to determine work methods used and workload requirements.

Work activities were observed.

Measurement criteria

Performance standards were established, based on the overall output desired and the resources available as well as comparative analysis with similar work activities of other organizations.

Specific findings and recommendations

Inconsistent administration of personnel policies, procedures, and benefits.
Inadequate supervision of employees (i.e., lack of planning, scheduling, and monitoring of work activities).

Underutilization of available resources.

Insufficient understanding of capabilities and resources of one department by another department.

Specific comments and limitations

None.

Exhibit 60B-8

Illustrative Engagement Summary—Manufacturer of Food Products

Organization audited

Manufacturing company engaged in the production and distribution of food products to both fresh and frozen markets.

Type of organization

Public corporation.

Background of operational audit

Corporate management was concerned that the organization structure, job definitions, and operating procedures for the frozen market segment of the business were not providing maximum effectiveness to meet marketing and distribution requirements.

Principal recipients of operational audit report

President, comptroller, and vice president of frozen foods operations.

Purpose

To assess performance, identify opportunities for improvement and outline recommendations for improvement.

Objective

To determine if the organization structure and operating processes of the frozen food operation could be improved.

To determine if job definitions and responsibilities were suitable to the needs of the operation.

Scope

The review included sales management, marketing services, customer service, physical distribution, transportation, warehousing, inventory management and control, order processing, invoicing and accounts receivable, and electronic data processing of operating and performance information.

General procedures-approach to conducting engagement

An on-site review of multi-plant operating and administrative processes and management controls in the departments and functions covered was conducted.

Organization structures, job definitions, and responsibilities and authorities were analyzed. The work activities and interfaces between functions were flowcharted and documented.

Measurement criteria

Organization structure and function alternatives were developed based on the requirements to improve the use of production, distribution, marketing, and financial capacities to attain corporate objectives.

Specific findings and recommendations

Develop a stand-alone division organization structure with specific job roles and responsibilities rather than present structure in which key persons also have roles and responsibilities in other operating divisions of the company.

Assign specific leadership role to an individual who would devote full time solely to the management of a frozen products division.

Change order entry and processing and inventory control operations to tie in more effectively to the physical distribution, customer service, and management information activities.

Special comments and limitations

None.

APPENDIX 60/C

SAMPLE CHECKLISTS FOR REVIEWING OPERATIONS

This appendix provides illustrations of how a practitioner can use a diagnostic approach (illustrated in the sample diagnostic review questionnaire and sample diagnostic review summary) in conducting a consulting services engagement to maximize a client's profits or to perform a general review of client operations. The diagnostic review checklist (exhibit 60C-2) lists questions whose answers help in understanding the current effectiveness of a client's profit-oriented activities. The diagnostic review summary (exhibit 60C-1) aids in collecting information and related comments from the diagnostic review checklists.

The accompanying forms in this appendix are presented for illustrative purposes. The forms can be used immediately without modification. However, practitioners can customize the checklists as needed based on their own methods and experiences and the nature of the specific client. The questions in each illustrative checklist should not be construed as all-inclusive or as substitutes for individual creativity and an understanding of the client and its industry. Elements or questions *may* be added or dropped, depending on the circumstances in each case. (The diagnostic forms are also available in software running on WordPerfect 5.1 entitled *Small Business Consulting Tool: Diagnostic Review Checklist for Maximizing Profits* (product no. 055010). To obtain a copy, call the AICPA Order Department: 1-800-862-4272 (USA) or 1-800-248-0445 (NY)).

Although the material in this appendix is broad in scope, it is not exhaustive in the examination of any specific area. For example, matters that pertain exclusively to financial statements are not treated extensively.

Instructions for Using the Diagnostic Review Checklist Forms

In this illustration of the diagnostic technique, two sample forms are used: the sample diagnostic review summary (figure 60C-1, page 60/100-38) and the sample diagnostic review checklist (figure 60C-2, page 60/100-41). A complete diagnostic review summary and a complete diagnostic review checklist are provided in another file. Practitioners can adapt these forms or use them as is. Instructions for constructing these forms on a personal computer follow.

The diagnostic review summary has four sections:

1. *Areas* are the selected aspects of the business related to profit maximization. *Elements* specify the major factors to review in each area, possibly by identifying a question or subject related to a diagnostic review checklist.

2. *Workpaper reference* indicates which workpapers pertain to a given element.

3. *Opportunity for improvement* is checked off for each element reviewed, indicating overall judgment about the degree of opportunity for improvement based on the answers on the diagnostic review checklists.

4. *Significant commentary* is made on substantial findings to review for possible communication to the client.

The diagnostic review checklist has six sections:

1. *Question* that relates to each element (number 1 above) on the diagnostic review summary. These questions require answers, and one or more pages may be used for each element listed.

2. *Response to question,* which may be "Yes," "No," and "Not Applicable."

3. *Responsible person(s)* who has departmental responsibility for the item discussed in the question.

4. *Opportunity for improvement,* which is defined and may be indicated as follows:

   - None—N. There is no opportunity for improvement.
   - Minimal—M. The benefit resulting from the improvement will be slight.
   - Good—G. The improvement will benefit the client.
   - Substantial—S. The improvement will greatly benefit the client.
   - Crucial—C. Implementation of the improvement needs to receive top priority.

5. *Comments* on the item (with possible suggestions for corrections).

6. *Workpaper reference,* if any, documenting procedures and procedural deficiencies that may exist.

The practitioner first completes the diagnostic review checklists and then brings the results forward to the diagnostic review summary. The summary form serves as a cover sheet for all the checklist forms. After an initial client meeting or survey, or both, the first step in this technique is to develop pertinent questions to ask the client.

The diagnostic technique illustrated here is one of several. Practitioners should use whatever technique and forms they are most comfortable with. Furthermore, they can use this approach for more than helping clients maximize profits, although the questions they ask may be different for each client. Once practitioners develop a file of questions useful for various areas, circumstances, and types of clients, they will more easily identify the appropriate questions for a specific client.

Introduction to the Review Process

The following sample diagnostic review summary (figure 60C-1) and sample diagnostic review checklists (figure 60C-2) illustrate the use of this diagnostic technique. The sample diagnostic review checklist contains questions relating to the organization area of the diagnostic review summary. The diagnostic review summary has space under each area to insert additional elements. This additional space indicates that the forms are not all-inclusive. In the checklist, the last question under each element is *Other,* indicating that practitioners use their judgment and knowledge of the client to add any pertinent questions. The diagnostic review checklist covers each area included in the diagnostic review summary.

Figure 60C-1 Sample Diagnostic Review Summary

ANY CLIENT
DIAGNOSTIC REVIEW SUMMARY

	INITIALS	DATE	REFERENCE
PREPARED BY			
CHECKED BY			
APPROVED BY			

AREAS/ELEMENTS	WORKPAPER REFERENCE	OPPORTUNITY FOR IMPROVEMENT					SIGNIFICANT COMMENTARY
		NONE	MINIMAL	GOOD	SUBSTANTIAL	CRUCIAL	
ORGANIZATION							
1 Structure				X			
2 Organization Chart		X					
3 Policy Manual				X			
4 Executive Duties		X					
5 Authority and Responsibility			X				
6 Standard Operating Procedures			X				
7							
8							
9							
MANAGEMENT GOALS							
10 Planning Procedures				X			
11 Place in Industry				X			
12 Short- and Long-Range Planning			X				
13 Markets to be Served			X				

AREAS/ELEMENTS	WORKPAPER REFERENCE	OPPORTUNITY FOR IMPROVEMENT					SIGNIFICANT COMMENTARY
		NONE	MINIMAL	GOOD	SUBSTANTIAL	CRUCIAL	
14 Geography		X					
15 Profitability				X			
16 Growth							
17 Continuity			X				
18 Risk Management							
19							
20							
SOURCES AND ADEQUACY OF CAPITAL							
21 Equity			X				
22 Debt					X		Current level of debt is extremely high; debt/equity ratio exceeds industry norm.
23 Relations with Lenders		X					
24 Cash Management						X	Cash is uncontrolled; loss of potential earnings; opportunities for embezzlement.
25 Working Capital		X					
26 Forecasting				X			
27							
28							
29							
MARKETING							
30 Market Plan				X			

AREAS/ELEMENTS	WORKPAPER REFERENCE	OPPORTUNITY FOR IMPROVEMENT					SIGNIFICANT COMMENTARY
		NONE	MINIMAL	GOOD	SUBSTANTIAL	CRUCIAL	
31 Product Planning		X					
32 Pricing						X	Ineffective pricing formulas; minimal product cost analysis.
33 Promotion				X			
34 Distribution			X				
35 Servicing				X			
36 Sales					X		Lack of sales forecasts; sales reports and customer follow-ups.
37							
38							

Figure 60C-2 Sample Diagnostic Review Checklist

ANY CLIENT
DIAGNOSTIC REVIEW QUESTIONNAIRE

	INITIALS	DATE
PREPARED BY		
APPROVED BY		

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
ORGANIZATION											
1. Structure											
A. Is the company incorporated?	X			A. Weber	X						
B. Is that the most appropriate business form?	X			A. Weber	X						
C. Are there other related entities?		X		A. Weber	X						
D. Has consideration been given to--				A. Weber			X			Possible substantial merger benefits.	C1
(1) Merger or consolidation?		X									
(2) Surtax allocation?			X								
E. Should S Corporation tax status and its implications be considered?		X		A. Weber	X						
F. Does the board of directors (governing body) make policy?		X		A. Weber				X		Lack of management policy guidance by board of directors.	C2

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
G. Is the board of directors perfunctory in operation?		X		A. Weber				X		Board of directors meet infrequently.	C2
H. Are there outside directors?		X		A. Weber							
I. Are accurate minutes of board meetings kept and formalized on a timely basis?	X										
J. Does management appear to have the diversified talent needed to direct the entity?	X			D. Smith		X					
K. Other											
2. Organization Chart											
A. Does the company have an organization chart?											
B. What is the informal organization?											
C. Does the chart accurately portray the company's organizational structure?											
D. Is the organizational structure appropriate?											
E. Does the chart show--											
(1) Groupings of positions?											
(2) Functional areas?											
F. Is it communicated to appropriate personnel?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
G. Is it updated as the organization changes?											
H. Are there any organizational conflicts?											
I. Other											
3. Policy Manual											
A. Does the company have a policy manual?											

Exhibit 60C-1

Diagnostic Review Summary

ANY CLIENT
DIAGNOSTIC REVIEW SUMMARY

	INITIALS	DATE	REFERENCE
PREPARED BY			
CHECKED BY			
APPROVED BY			

AREAS/ELEMENTS	WORKPAPER REFERENCE	OPPORTUNITY FOR IMPROVEMENT					SIGNIFICANT COMMENTARY
		NONE	MINIMAL	GOOD	SUBSTANTIAL	CRUCIAL	
ORGANIZATION							
1 Structure							
2 Organization Chart							
3 Policy Manual							
4 Executive Duties							
5 Authority and Responsibility							
6 Standard Operating Procedures							
7							
8							
9							
MANAGEMENT GOALS							
10 Planning Procedures							
11 Place in Industry							
12 Short- and Long-Range Planning							

AREAS/ELEMENTS	WORKPAPER REFERENCE	OPPORTUNITY FOR IMPROVEMENT					SIGNIFICANT COMMENTARY
		NONE	MINIMAL	GOOD	SUBSTANTIAL	CRUCIAL	
13 Markets to be Served							
14 Geography							
15 Profitability							
16 Growth							
17 Continuity							
18 Risk Management							
19							
20							
SOURCES AND ADEQUACY OF CAPITAL							
21 Equity							
22 Debt							
23 Relations with Lenders							
24 Cash Management							
25 Working Capital							
26 Forecasting							
27							
28							
29							
MARKETING							
30 Market Plan							
31 Product Planning							

AREAS/ELEMENTS	WORKPAPER REFERENCE	OPPORTUNITY FOR IMPROVEMENT					SIGNIFICANT COMMENTARY
		NONE	MINIMAL	GOOD	SUBSTANTIAL	CRUCIAL	
32 Pricing							
33 Promotion							
34 Distribution							
35 Servicing							
36 Sales							
37							
38							
39							
40							
PRODUCTS AND SERVICES							
41 Product and Service Development							
42 Monitoring Industry Trends							
43 Monitoring Competition							
44 Reporting							
45 Diversification							
46 Make vs. Buy							
47							
48							
PRODUCTION							
49 Planning and Control							

AREAS/ELEMENTS	WORKPAPER REFERENCE	OPPORTUNITY FOR IMPROVEMENT					SIGNIFICANT COMMENTARY
		NONE	MINIMAL	GOOD	SUBSTANTIAL	CRUCIAL	
50 Inventories							
51 Production Scheduling							
52 Quality Control							
53 Financial Controls							
54 Facilities							
55 Personnel							
56							
57							
HUMAN RESOURCES							
58 Management							
59 Communications							
60 Recruiting							
61 Hiring							
62 Training							
63 Compensation and Benefits							
64 Motivation							
65 Evaluation							
66 Employee Relations							
67 Manpower Planning & Utilization							
68 Law & Regulations							
69 Union Contracts							

AREAS/ELEMENTS	WORKPAPER REFERENCE	OPPORTUNITY FOR IMPROVEMENT					SIGNIFICANT COMMENTARY
		NONE	MINIMAL	GOOD	SUBSTANTIAL	CRUCIAL	
70 Health Maintenance							
71 Work Environment							
72							
73							
MANAGEMENT INFORMATION SYSTEMS AND CONTROLS							
74 Accounting System							
75 Financial Statements							
76 Other System Considerations							
77 Other Management Reports							
78 Utilization of Information							
79 Special Review Areas							
80 General Controls							

Exhibit 60C-2

Diagnostic Review Checklists

ANY CLIENT
DIAGNOSTIC REVIEW QUESTIONNAIRE

	INITIALS	DATE
PREPARED BY		
APPROVED BY		

Organization

Some small businesses operate effectively without any formal organizational structure. In the early stages, one person, or a small group, can usually supervise all areas of the enterprise effectively. An informal system may be effective because the person or the group is aware of all aspects of the business.

However, as a business grows and expands, the informal system may no longer function effectively. It may become necessary to establish a more formal organization to communicate policies, operating procedures, and duties within the company. Lines of responsibility with appropriate authority are then defined to enhance management's ability to maximize profits through goal setting and management accountability.

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
ORGANIZATION											
1. Structure											
A. Is the company incorporated?											
B. Is that the most appropriate business form?											
C. Are there other related entities?											
D. Has consideration been given to--											
(1) Merger or consolidation?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(2) Surtax allocation?											
E. Should S Corporation tax status and its implications be considered?											
F. Does the board of directors (governing body) make policy?											
G. Is the board of directors perfunctory in operation?											
H. Are there outside directors?											
I. Are accurate minutes of board meetings kept and formalized on a timely basis?											
J. Does management appear to have the diversified talent needed to direct the entity?											
K. Other											
2. Organization Chart											
A. Does the company have an organization chart?											
B. What is the informal organization?											
C. Does the chart accurately portray the company's organizational structure?											
D. Is the organizational structure appropriate?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
E. Does the chart show--											
(1) Groupings of positions?											
(2) Functional areas?											
F. Is it communicated to appropriate personnel?											
G. Is it updated as the organization changes?											
H. Are there any organizational conflicts?											
I. Other											
3. Policy Manual											
A. Does the company have a policy manual?											
B. Does it comply with the approved policies and positions of the board of directors?											
C. Does it reflect the thinking and needs of management?											
D. Is the policy manual adequate?											
E. Has legal advice been obtained with respect to possible pitfalls and illegal policies?											
F. Is it reviewed and updated periodically?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
G. Is it distributed to appropriate personnel?											
H. Is it understood by those who use it?											
I. Is a system in place to ensure that the policies are adhered to?											
J. Other											
4. Executive Duties											
A. Are the duties and responsibilities of all executives in writing?											
B. Do the duties and responsibilities fully describe the day-to-day activities of the position?											
C. Are the duties and responsibilities communicated to and understood by those who need to know?											
D. Are the duties and responsibilities adequate for satisfying company objectives?											
E. Are they updated as needed?											
F. Other											
5. Authority and Responsibility											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
A. Does the company have a plan in writing calling for delegation of authority and responsibility?											
B. Are personnel with delegated responsibility given appropriate authority?											
C. Are the areas of responsibility clearly communicated and understood?											
D. Are the responsibilities of each individual monitored and revised as necessary?											
E. Are the individuals who are unable to handle responsibility or authority removed from such positions?											
F. Other											
6. Standard Operating Procedures											
A. Does the company's organizational structure allow for communicating standard operating procedures efficiently?											
B. Are procedures in writing?											
C. Are they communicated to and understood by the appropriate personnel?											
D. Are they updated?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
E. Do they include-- (1) Job descriptions? (2) Rules and regulations? (3) Promotions and transfers? (4) Evaluation process? F. Other											

Management Goals

Many businesses are started without explicitly stated goals and continue to operate in this same manner. But those guided by set, formal goals can better monitor, measure, and assess their progress. Merely setting goals encourages realistic operating methods.

A mission statement (which outlines a company's guiding principles, reasons for existence, management philosophy, and purpose) sets the atmosphere and circumstances in which the company intends to operate and guides its selection of operating methods and techniques.

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
MANAGEMENT GOALS											
10. Planning Procedures											
A. Has the company developed a mission statement?											
B. Does the mission statement outline the company's--											
(1) Guiding principles?											
(2) Management philosophy?											
(3) Purpose											
C. Is the organization chart compatible with the mission statement?											
D. Does the company have an annual retreat or planning meeting for its top management?											
E. Other											
11. Place in Industry											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
A. Has the company determined its ranking in its industry concerning--											
(1) Sales volume?											
(2) Product diversity?											
(3) Competitive position?											
(4) Competitive advantage/disadvantage?											
B. Has the company outlined its goals concerning--											
(1) Sales volume?											
(2) Product-line diversity?											
(3) New product development?											
(4) Competitive position?											
C. Other											
12. Short- and Long-range Planning											
A. Does the company have--											
(1) A written short-range plan? (up to two years)											
(2) A written long-range plan? (three to five years)											
B. Is management committed to the plan?											
C. Do the plans have objectives that are--											
(1) Measurable?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(2) Attainable?											
D. Has the plan been communicated to appropriate personnel?											
E. Has management considered disseminating some elements of the plan to all employees?											
F. Are the plans regularly compared with results?											
G. Are the plans regularly revised?											
H. Are methods outlined to assist in reaching goals?											
I. Other											
13. Markets To Be Served											
A. Is there a formal marketing plan?											
B. Has the company determined the markets--											
(1) It serves?											
(2) It wishes to serve?											
(3) It can best serve?											
C. Does the company have a program to--											
(1) Expand its markets?											
(2) More deeply penetrate its existing markets?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
D. Is there a plan to monitor current market developments--											
(1) Domestic?											
(2) Foreign?											
E. Other											
14. Geography											
A. Has the company defined the geographic area--											
(1) It serves?											
(2) It wants to serve?											
B. Does the geographic plan consider--											
(1) Cost of service?											
(2) Physical advantages/dis-advantages?											
a. Sales coverage											
b. Product delivery											
c. Product warehousing											
C. Other											
15. Profitability											
A. Does the company have a written plan for profitability by--											
(1) Product line?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(2) Geographic area?											
(3) Sales territory?											
B. Is the plan realistic?											
C. Is it updated regularly?											
D. Has the plan been communicated to appropriate personnel?											
E. Does the company have a plan for profit centers by--											
(1) Plant?											
(2) Division?											
F. Does it include--											
(1) Adequate return on investment?											
(2) Planned return on sales?											
(3) Reasonable compensation for active owners?											
G. Is there adequate tax planning for--											
(1) The corporation?											
a. Income tax											
b. Personal property tax											
c. Other											
(2) Individuals?											
H. Other											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
16. Growth											
A. Does management have growth goals?											
B. Are they in writing?											
C. Are they communicated to the appropriate personnel?											
D. Are they effective?											
E. Do they include--											
(1) Mergers?											
(2) Acquisitions?											
(3) Internal expansion?											
a. Vertical											
b. Horizontal											
(4) New product lines?											
F. Are the goals well defined with regard to--											
(1) Timing?											
(2) Methods?											
G. Is the growth plan realistic?											
H. Does top management support the plan?											
I. Does the plan consider--											
(1) Moving to a new location?											
(2) Opening new facilities?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
J. Are the goals and plans updated?											
K. Other											
17. Continuity											
A. Does the company have a plan for continuing the business--											
(1) In the event of loss of the following?											
a. Production facilities											
b. Key employees											
c. Sources of supply											
d. Substantial customers											
e. Computer data or facilities											
(2) In the event of one of the following occurrences?											
a. Friendly or unfriendly takeover											
b. Merger proposal											
c. Succession of controlling ownership											
B. Are these plans realistic in light of--											
(1) Key employee goals?											
(2) Backup for key employees?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(3) State of the industry?											
C. Are these goals updated?											
D. Is the organizational structure suited to the company's goals?											
E. If not, can the goals be altered to fit the plan?											
F. Does the company have a plan of succession for corporate officers?											
G. Does the compensation plan encourage retention of key personnel?											
H. Other											
18. Risk Management											
A. Does the company have a risk management program?											
B. Is protection provided for each identified risk?											
C. Has self-insurance been considered?											
D. Has coinsurance been considered?											
E. Can exposure to risks be provided for in an economical manner?											
F. Is the full insurance program of the company reviewed regularly?											
G. Other											

Sources and Adequacy of Capital

A frequent cause of business failure is lack of capital. A strong program to provide adequate capital is important for business continuity. The program would provide adequate capital for both the short and long term as well as maintain appropriate relationships to ensure continuing sources of capital.

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
SOURCES AND ADEQUACY OF CAPITAL											
21. Equity											
A. Is the company's equity properly structured with regard to--											
(1) Adequacy?											
(2) Reinvestment of profits?											
(3) Composition?											
a. Common stock											
b. Preferred stock											
(4) Buy-and-sell agreement provision?											
B. Does the company have a plan to secure additional capital as needed?											
C. Has the company considered--											
(1) Issuing additional stock?											
(2) Issuing second-class stock?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(3) Issuing convertible preferred stock?											
(4) Repurchasing outstanding shares?											
D. Does the company use applicable ratios to determine equity needs?											
E. Other											
22. Debt											
A. Does the company plan its debt for--											
(1) Amount and timing?											
(2) Terms and covenants?											
(3) Security and conversion?											
(4) Refinancing policies?											
B. Is the company debt in line with repayment ability?											
C. Is the company debt structured so that short-term debt is not used for long-term purposes?											
D. Does the company review its debt structure to get the most benefit from tax law and regulations?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
E. Does the company have a reasonable debt-to-equity ratio, considering the operational risk involved?											
F. Does the company plan for debt reduction?											
G. Is there a plan to convert debt to equity?											
H. Is there a program for securing additional financing through debt issues?											
I. Has the company considered debentures as a type of debt?											
J. Does the company have a line of credit?											
K. Is it adequate?											
L. Other											
23. Relations with Lenders											
A. Are there established relationships with lenders, such as--											
(1) Bankers?											
(2) Investment brokers?											
(3) Factors?											
B. Are there relationships with more than one bank?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
C. Are lenders kept informed of company developments through--											
(1) Financial reports?											
(2) Newsletters?											
(3) Personal contacts?											
D. Can the leading institution(s) meet the present and future needs of the business?											
E. Is there a plan to expand the company's relationships in view of the alternative lending situations?											
F. Other											
24. Cash Management											
A. Is there a written cash management program?											
(1) Does it include a short-term cash budget updated on a regular basis?											
(2) Does the plan take full advantage of bank float?											
(3) Does it include a requirement that all cash received each day be deposited intact in the bank?											
B. Is the plan being followed?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
C. Is the plan regularly revised to take advantage of varying investment vehicles?											
D. Is the cash management program assigned to an appropriate person?											
E. Does the cash manager have all the necessary company information about											
(1) Sales?											
(2) Collection flow?											
(3) Payable requirements?											
(4) Debt proceeds/service?											
(5) Capital asset acquisition/sale?											
F. Does the collection procedure include--											
(1) Periodic review of aged accounts receivable?											
(2) Past-due collection notices?											
(3) Telephone calls to delinquent customers?											
(4) Factoring of accounts receivable?											
G. Does the company carry credit insurance?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
H. Are all purchase discounts taken?											
I. Is appropriate interest charged on overdue accounts?											
J. If the handling of cash is significant, is an effective internal control system in place?											
K. Does the client know the cash book balance on a daily basis?											
L. Does the client know the daily bank balance?											
M. Are the petty cash funds known? If so--											
1) Are the fund balances excessive?											
2) Are the funds maintained on an imprest basis?											
N. Does the client schedule deposits to coincide with same-day bank recording (that is, before 2:00 p.m.)?											
O. Does the client use banks that provide instant credit for bank charge cards (that is, VISA, MasterCard, and so forth)?											
P. Does the client use--											
(1) A lockbox system?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(2) One principal centralized bank account?											
(3) Preestablished wire transfer to maintain minimum amounts in decentralized locations?											
(4) An appropriate number of bank accounts?											
Q. Is the period covered in the operating cash budget adequate?											
R. Does the budget consider capital as well as operating items?											
S. Is the cash budget used regularly to assess opportunities for investment of excess cash, such as--											
(1) Weekend rollovers?											
(2) Money market accounts?											
(3) Treasury bills?											
(4) Repurchase agreements?											
(5) Certificates of deposit?											
T. Are actual cash balances compared periodically with budgeted amounts to identify the causes of significant variances?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
U. Is the cash budget revised periodically?											
V. Does the client regularly review the cash budget to determine--											
(1) When short-term borrowings will be necessary to meet cash deficiencies?											
(2) The need for intermediate- to long-term financing (caused, for example, by the growth of inventories and receivables due to increased sales)?											
(3) Opportunities to synchronize heavy outflows of cash with periods of heavy inflows?											
W. To maximize cash availability, does the client--											
(1) Hold vendor payments the maximum amount of time allowable?											
(2) Reduce or eliminate prepayment of expenses?											
(3) Keep discretionary purchases to a minimum?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(4) Use disbursing bank accounts in other federal reserve districts?											
(5) Use zero-balance checking?											
X. To generate cash, does the client--											
(1) Review life insurance policies to determine the available cash surrender value, including the utilization of the minimum-deposit method on life insurance premium payments?											
(2) Convert idle assets such as obsolete inventory into cash?											
(3) Consider alternatives to an in-house sales person?											
(4) Consider alternatives to full-time personnel?											
(5) Consider alternative methods of acquiring equipment?											
Y. Other											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
25. Working Capital											
A. Is working capital adequate?											
B. Is the composition reasonable, and is it regularly monitored?											
C. Is the trend of working capital in the right direction--											
(1) Historically?											
(2) As projected?											
D. Is there a plan to safeguard working capital?											
E. Is working capital balanced--											
(1) Between receivables and inventory?											
(2) In line with industry ratios?											
F. Is there a program for short-term borrowing to satisfy working-capital needs?											
G. Does the company regularly review and compare the following with industry standards--											
(1) Current ratio?											
(2) Quick ratio?											
(3) Inventory turnover?											
(4) Dividend payout ratio?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(5) Receivable turnover?											
(6) Debt/equity ratio?											
H. Regarding ratios--											
(1) Is the client aware of appropriate accounts receivable ratios common to the business?											
(2) Are periodic comparisons to applicable ratios made?											
(3) Are ratios comparable to industry? If not, has the client considered the cause of variation?											
I. Are accounts receivable a key factor in the business?											
J. Is the client satisfied with the information about accounts receivable generated by the accounting system?											
K. Does the client understand that proper control of accounts receivable will increase cash flow and thereby decrease the need to borrow funds as well as the associated interest expense?											
L. Is the client aware of alternative tax methods dealing with accounts receivable charge-offs?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
M. Are accounts receivable seasonal in nature?											
N. Have fluctuations in accounts receivable been considered in cash budgeting?											
O. Is the client's accounting system adequate to maintain accounts receivable on a current reporting basis?											
(1) Is the accounting system efficient?											
(2) Does the accounting system provide sufficient detail for analysis?											
(3) Is there adequate backup for fires, floods, and other catastrophes?											
P. Is the insurance coverage on valuable papers adequate?											
Q. Are the accounts receivable--											
(1) Balanced against a control at least monthly?											
(2) Aged on a monthly basis?											
R. Are returns and allowances controlled?											
S. Are controls in place to safeguard assets?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
T. Does the client have clear, documented credit management policies?											
U. Are employees encouraged to request cash or checks before granting credit?											
V. Does the client use major credit cards rather than open accounts?											
W. To minimize bad debt expense--											
(1) Has the client assigned responsibility for credit decisions?											
(2) Are credit limits established?											
(3) Are credit limits enforced?											
(4) Are new credit customers investigated thoroughly?											
(5) Are new credit customers approved by a responsible person before any sales are made to them?											
(6) Are credit policies explained to customers?											
(7) Are credit policies reviewed periodically?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(8) Has the client considered credit insurance?											
(9) Has the client considered centralizing the credit function?											
(10) Are past-due accounts followed up promptly according to established credit policies?											
(11) Does the client monitor and analyze credit limits, customer turnover, and credit sales volume?											
(12) Have consignment sales been considered?											
(13) Can a policy to minimize insufficient-funds checks be enforced?											
(14) Could credit policies be safely relaxed?											
(15) Could trade terms be more attractive?											
(16) Is there a policy for subsequent reviews of written-off accounts receivable to determine whether any collection is possible?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(17) Is there an employee credit policy?											
(18) Does the client refer overdue accounts for collection?											
(19) Are sales contracts written to permit recovery of collection fees?											
X. To reduce the level of accounts receivable and thereby free working capital for other purposes--											
(1) Has the client considered paying salespersons' commissions when receivables are collected?											
(2) Could the client invoice more frequently; for example, daily, weekly, biweekly, rather than monthly?											
(3) Are there many billing corrections?											
(4) Does the client render statements? If so, how frequently?											

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	Yes	No	N/A		N	P	G	S	C		
(5) Has the client considered offering a one-time cash discount (no matter how old the receivable) to provide immediate cash?											
(6) Would it be beneficial to factor receivables or pledge them as collateral for a short-term loan?											
(7) Is interest charged on past-due accounts? If so, does it comply with federal and state regulations?											
(8) Does the client utilize the major portion of collection efforts for the largest customers?											
(9) Can an account receivable be converted to a note receivable?											
(a) If so, can the note be discounted?											
(b) If obtained, is there follow-up for collection?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(10) Could sight or acceptance drafts be used instead of checks?											
Y. Are accounts payable a significant component in the operation of the business?											
Z. Is the accounting system providing the client with significant information about accounts payable?											
AA. Does the client prepare lists periodically of amounts owed to vendors?											
(1) Are they reconciled to the general ledger?											
(2) Are they aged?											
(3) Are the schedules prepared on a timely basis?											
(4) Do the lists reflect due dates and potential discounts available?											
(5) Is the accounting system sufficient to enable preparations of the above schedules without difficulty?											

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	Yes	No	N/A		N	P	G	S	C		
(6) Are the accounts payable schedules accurate; that is, are there substantial unrecorded liabilities on a report date for the following periods:											
(a) Weekly (if warranted)?											
(b) Monthly?											
(c) Quarterly?											
(d) Annually?											
AB. How and when are liabilities recognized?											
AC. To optimize financing available through trade credit while maintaining good relationships with creditors, does the client--											
(1) Have a documented policy for dealing with trade creditors?											
(2) Use an accounts payable due-date system that permits payment on the due date?											

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	Yes	No	N/A		N	P	G	S	C		
(3) Document supplier follow-up efforts to determine when each supplier becomes concerned about overdue accounts?											
(4) Differentiate between those suppliers whose payments can be postponed and those who must be paid promptly?											
(5) Offer to give creditors interest-bearing notes in situations where accounts cannot be paid promptly?											
(6) Discuss freely and honestly with creditors any problems in meeting repayment schedules?											
(7) Know which critical suppliers could effectively put it out of business?											
(8) Explore the possibility of obtaining extended terms or dating, or both, from suppliers?											
(9) Consider purchasing on installments with a balloon payment at the end?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
AD. To minimize overall costs of financing, does the company--											
(1) Take advantage of cash discounts? (Terms of 2/10, n/30 convert to a 36.5 percent annual interest rate.)											
(2) Maintain and monitor a discounts lost account?											
AE. Is the client aware of other types of discounts (e.g., trade and merchandising) that may be available?											
AF. Does the client have documented accounts payable and related purchasing policies?											
AG. Does the client have and enforce a policy requiring competitive bids in purchasing?											
AH. Does the client use comparative industry ratios?											
AI. Other											
26. Forecasting											
A. Is there a plan to forecast needs for--											

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	Yes	No	N/A		N	P	G	S	C		
(1) Debt increase or decrease?											
(2) Equity increase or decrease?											
B. Are debt-to-equity forecasts based on (coordinated with) forecasts for--											
(1) Sales growth?											
(2) Plant expansion?											
(3) Product-line developments?											
C. Has there been an historical ability to forecast capital needs?											
D. Do forecasting needs lend themselves to computer spreadsheet processes?											
E. Other											

Marketing

Marketing may be defined as the product planning, pricing, promotion, distribution, and servicing of goods and services for consumers. It includes all activities required to sell what you want, where you want, when you want, how you want, and on your terms.

A small company may be very successful without a formal marketing plan, particularly if it sells a desired product or service at a fair price. But as the organization grows, its activities become more complex. In addition, the competition may develop a better product or sell an equally good product at a lower cost. Consumers' tastes change rapidly. Population shifts and other demographic factors can change markets drastically.

These factors may require a formal marketing plan in order for the company to survive and grow. The degree of formality depends on the size of the operation and the industry. Production must be coordinated with sales.

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	Yes	No	N/A		N	P	G	S	C		
MARKETING											
30. Marketing Plan											
A. Does the company have a well-defined marketing plan?											
(1) Long term?											
(2) Short term?											
B. Is the plan in writing?											
C. Has the plan been communicated to appropriate personnel?											
D. Is the plan updated periodically?											
E. Does the plan coordinate with corporate objectives?											
F. Is the plan compared to actual performance?											

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	Yes	No	N/A		N	P	G	S	C		
G. Does the plan include--											
(1) Major marketing areas?											
(2) Types of customers?											
(3) Number of customers?											
(4) Customer size?											
(5) Demographic analysis of customers by sales and profitability?											
(6) Products?											
(7) Pricing and gross profit?											
(8) Promotion?											
(9) Distribution?											
(10) Servicing?											
(11) Sales staff goals and compensation?											
(12) Warranties and guarantees?											
(13) Organization chart?											
(14) Delegation of responsibility and authority?											
(15) Clearly defined reporting process?											
H. Is marketing management held accountable for its actions?											

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	Yes	No	N/A		N	P	G	S	C		
I. Can the plan's goals be achieved?											
J. Other											
31. Product Planning											
A. Does the company use market research techniques to evaluate its products?											
B. Are customer orders and satisfaction considered in evaluating products?											
C. Are the results of market research adequately communicated to the following departments--											
(1) Research and development?											
(2) Manufacturing?											
(3) Sales?											
D. Does the company have a plan for--											
(1) New product development?											
(2) Product improvement?											
E. Do the product plans review--											
(1) Product lines?											
(2) Quality?											
(3) Brands?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(4) Packaging?											
(5) Related services?											
(6) Licensing and royalties?											
F. Are the plans reviewed and monitored?											
G. Are the plans coordinated with other activities?											
H. Other											
32. Pricing											
A. Does the company have written pricing policies?											
B. Are they effectively communicated?											
C. Are pricing policies monitored for compliance?											
D. Are competitors' prices and pricing policies monitored?											
E. Is an adequate feedback mechanism in place to monitor consumer reaction to pricing policies?											
F. Does the company utilize appropriate costing techniques in developing pricing policies?											
G. Are pricing policies driven by realistic cost information or by market considerations?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
H. Do the pricing policies consider--											
(1) Direct and indirect cost?											
(2) Discounts and allowances?											
(3) Available credit?											
(4) Transportation and shipping?											
(5) Inflationary forces?											
(6) Industry and economic factors?											
(7) Gross margin consistent with the sales volume?											
(8) Research and development costs?											
(9) Marketing and distribution costs?											
I. Other											
33. Promotion											
A. Does the company have a promotion plan or policy?											
B. Is it in writing?											
C. Is the plan updated periodically?											
D. Does the promotion plan include--											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(1) Public relations?											
(2) Sales promotion?											
(3) Advertising?											
(4) Sales follow-up and evaluation?											
(5) Budget for year(s)?											
E. Does the company advertise through--											
(1) Television?											
(2) Radio?											
(3) Newspapers?											
(4) Magazines?											
(5) Trade publications?											
(6) Direct mail or catalog?											
(7) Other											
F. Does the sales department get involved in handling customer complaints?											
G. Are reimbursements received from manufacturers for co-op advertising?											
H. Is the advertising program monitored effectively?											
I. Does the company participate in trade shows?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
J. Is information from trade shows evaluated?											
K. Other											
34. Distribution											
A. Does the company's distribution system provide for--											
(1) Company-owned warehouses?											
(2) Rented warehouses?											
(3) Regional distribution centers?											
(4) Leased transportation equipment?											
B. Is the distribution system evaluated periodically?											
C. Is the company product sold through--											
(1) Company-owned facilities?											
(2) Franchise operations?											
(3) Distributors?											
(4) Wholesalers?											
(5) Retailers?											
(6) Manufacturers' representatives?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
D. Are sales territories established?											
E. Is the effectiveness of the alternatives evaluated periodically?											
F. Other											
35. Servicing											
A. Does the company service its own products?											
B. Are service centers used?											
C. Are service employees adequately trained?											
D. Are the effectiveness and cost of the service operations monitored?											
E. Does an adequate customer feedback system exist to monitor the effectiveness of service operations?											
F. Does the servicing operation comply with company policy?											
G. What is the warranty policy and is it controlled?											
H. Other											
36. Sales											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
A. Does the company have a written sales management policy?											
B. Does the company prepare sales forecasts?											
C. Are the forecasts by--											
(1) Territories?											
(2) Quotas by salespeople?											
(3) Quotas by division?											
(4) Type of customers?											
(5) Branch offices?											
D. Does the company have a written sales policy?											
E. Is the sales policy communicated to appropriate personnel?											
F. Does the sales policy provide for regular evaluation of the process?											
G. Does the company have a sales training program?											
H. Do salespeople prepare reports on--											
(1) Customer contacts?											
(2) Customer follow-ups?											
I. Do sales reports include--											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(1) Sales and profitability by territory?											
(2) Sales and profitability by salespeople?											
(3) Sales and profitability by product?											
(4) Sales and profitability by type of customers?											
(5) Sales and profitability by branch?											
(6) Lost orders?											
(7) Comparison of actual with forecast?											
(8) Comparison of this year with prior years?											
J. Other											

Products and Services

Companies need to regularly monitor their product lines (products and services) to verify that they are meeting the needs of customers. Relying on a single product or service can be risky because of changes in technology (for example, buggy whips), knowledge of environmental safety (for example, asbestos), and politics (for example, the oil embargo).

Smaller companies often do not have written product and service development programs. This situation may be acceptable as long as there is a commitment to product and service development within the company. Failure to have a marketable product or service will result in obsolete inventories, lost customers, or, at worst, business failure.

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
PRODUCTS AND SERVICES											
41. Product and Service Development											
A. Does the company have a formal product and service development department?											
B. Does the product and service development department have written objectives?											
C. Are they adequately communicated to the staff?											
D. Are they updated periodically?											
E. Is the product and service development function adequately monitored?											
F. Does the budget for product and service development appear adequate?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
G. Has the company developed any new products or services (or made major product improvements) in the past two years?											
H. Does the company have a program to improve and update existing products?											
I. Other											
42. Monitoring Industry Trends											
A. Is the company a member of its industry association?											
B. Do key executives regularly attend trade association meetings?											
C. Is there an effective customer feedback system?											
D. Does the company obtain industry statistics?											
E. Does the company evaluate its operations in comparison to industry data?											
F. Does the company distinguish between established demand and created demand for its products?											
G. Other											
43. Monitoring Competition											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
A. Does the company monitor its domestic and foreign competitors?											
B. Does the company evaluate its competition by--											
(1) Obtaining competitors' sales literature, catalogs, and advertisements?											
(2) Determining competitors' pricing policies?											
(3) Analyzing competitors' products?											
(4) Analyzing competitors' distribution systems?											
C. Is the company's market share increasing?											
D. Other											
44. Reporting											
A. Does the company's quality reporting include--											
(1) Late shipments?											
(2) Lost customers?											
(3) Customer complaints?											
(4) Lost bids?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
B. Does the company have scrap reports for--											
(1) Finished products?											
(2) Incoming raw material?											
C. Are reports utilized?											
D. Are reported problems followed up?											
E. Other											
45. Diversification											
A. Has the company considered diversification through--											
(1) Export sales?											
(2) Government contracts?											
(3) Vertical expansion, that is, manufacturing its raw materials or acquiring a manufacturer?											
(4) Horizontal expansion, that is, expanding by manufacturing new products that complement current products?											
(5) Establishing its own repair (service) centers?											
(6) Entering new markets?											
(7) New products?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
B. Other											
46. Make versus Buy											
A. Does the company utilize make-versus-buy decision techniques?											
B. Are the techniques applied regularly?											
C. Are the criteria used appropriate?											
D. Are the results monitored?											
E. Do the company's make-versus-buy decisions follow management objectives?											
F. Other											

Production

When a small business is started, one person (or a small group) may effectively control all aspects of the production process on an informal basis. For example, a small manufacturing company may operate effectively without any formal (documented) production control system.

As the business grows, or as more items are added to the product line, the informal production control system often breaks down. The breakdown may result in unbalanced production, production delays due to lack of raw materials or components, and defective products. Unbalanced production can lead to excessive inventories, thus depleting available working capital. Production delays can result in order cancellations and excessive inventories. Defective merchandise can cause expensive rework and warranty expense as well as lost customers. Such inefficiencies adversely affect profitability and may cause failure of the business.

An effective production control system coordinates output with anticipated sales, minimizing the investment in finished-goods inventories. Inventories of raw materials and purchased components are also limited by coordinating quantities and delivery with expected production. Production is scheduled to minimize costly overtime. Scrap is controlled and minimized, and plant and equipment are utilized effectively.

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
PRODUCTION											
49. Planning and Control											
A. Does the company have a written production control system?											
B. Is the production control system on a flowchart?											
C. Does the plan include--											
(1) Work-flow processes?											
(2) Work schedules?											
(3) Control of procurement?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(4) Control of material flow?											
(5) Financial controls?											
(6) Coordination of production and sales forecasting?											
D. Is direct labor still an appropriate basis for distributing costs?											
E. Does the company control engineering costs?											
F. Does the company's control of equipment include--											
(1) Costs and uses?											
(2) Adequacy?											
(3) Purchases based on return on investment (ROI) considerations?											
(4) Replacements?											
(5) Maintenance?											
(6) Contracts?											
G. Does the company have adequate warehouse and distribution systems?											
H. Do all major jobs and operations have time standards established?											
I. Other											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
50. Inventories											
A. Are inventories coordinated with production schedules?											
B. Are purchases coordinated with sales and production forecasts?											
C. Do purchasing, sales, and manufacturing departments maintain effective communications?											
D. Are accurate perpetual inventory records maintained?											
E. Are obsolete and slow-moving inventories monitored?											
F. Are inventories of distributors and wholesalers used to minimize the company's inventory levels?											
G. Is a physical inventory taken annually and are adequate count records maintained?											
H. Are adequate records of inventory pricing and summary maintained?											
I. Are inventories a key factor in the client's business?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
J. Is the client satisfied with the information generated by the accounting system regarding inventories and the cost of goods sold?											
K. Is the client's inventory information generated by--											
(1) Units?											
(2) Unit cost?											
(3) Physical location?											
L. Are sales seasonal in nature?											
M. Are budgeting procedures in place to control total inventory levels according to major classifications?											
N. Is insurance coverage adequate?											
O. Are controls in place to discourage and limit theft?											
P. Does the client consider write-down and disposal of inventory that is obsolescent or damaged?											
Q. Is the client satisfied that the inventory is properly protected from the weather to avoid diminution of value?											
R. Does the client have clear, documented inventory management policies?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
S. Does the client maintain purchasing policies that minimize inventory investment (e.g., bulk purchasing)? If so, has the client evaluated carrying costs of excessive inventories?											
T. Is the client aware of alternative methods of tax valuation of inventory?											
U. Are other items of policy considered, such as--											
(1) Consignment?											
(2) Source of supply?											
(3) Availability of quantities?											
(4) Stock-out costs?											
(5) Return policies?											
V. Does the client understand that inventory is a profit-earning asset, and that it should be analyzed for its return on investment (ROI) just as any asset should be?											
W. Does the client make periodic comparisons to appropriate inventory ratios common to the industry?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
X. What is the composition of the clients' inventory? (Normally, approximately 20 percent of the total inventory items constitute a large proportion of the total dollar investment in inventory, and their costs deserve close scrutiny. A large percentage of items generally constitute a small proportion of the dollar investment and the cost of these items should receive little attention).											
Y. Other											
51. Production Scheduling											
A. Is a written production scheduling system used?											
B. Does the system include--											
(1) Production forecasting?											
(2) Approval by all appropriate departments?											
(3) Periodic updates to reflect current conditions?											
(4) Appropriate time estimates?											

QUESTION	RESPONSE TO QUESTION Yes	No	N/A	RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT N	P	G	S	C	COMMENTS	WORKPAPER REFERENCE
(5) Breakdown by product line?											
(6) Integration with the business plan?											
(7) A master production schedule?											
C. Is the system monitored?											
D. Is it effective?											
E. Is it communicated to appropriate personnel?											
F. Are production forecasts revised to reflect actual market and production conditions?											
G. Other											
52. Quality Control											
A. Does the company have written procedures for the quality control of its products or services?											
B. Are these procedures communicated to appropriate personnel?											
C. Does the company report results of quality-control checks?											
D. Are the controls effective?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
E. Are the controls updated to reflect changes in products and services?											
F. Is there a formalized quality control program for--											
(1) Incoming raw materials?											
(2) Production?											
(3) Finished products?											
G. Has management considered using quality circles to improve quality control?											
H. Are quality control responsibilities assigned to production employees?											
I. Is there a formal procedure for inspecting returned products?											
J. Other											
53. Financial Controls											
A. Do the company's financial controls include--											
(1) A cost accounting system?											
(2) Cost centers?											
(3) Production analysis?											
(4) Budgets?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(5) Variances?											
(6) Capacity utilization analysis?											
(7) Overhead analysis?											
(8) Comparison with the--											
a. Original budget?											
b. Variable revised budget?											
(9) Scrap reports?											
(10) Down time?											
B. Are these reports effective?											
C. Other											
54. Facilities											
A. Does the company have adequate facilities for the foreseeable future for--											
(1) Plant?											
(2) Equipment?											
(3) Delivery equipment?											
B. Are the facilities effectively and efficiently used for--											
(1) Plant?											
(2) Equipment?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(3) Delivery equipment?											
C. Are these facilities properly maintained for--											
(1) Plant?											
(2) Equipment?											
(3) Delivery equipment?											
D. Are the facilities properly secured for--											
(1) Plant?											
(2) Equipment?											
(3) Delivery equipment?											
E. Other											

Human Resources

Businesses' success or failure depends on people, because they make the decisions that ultimately control the destiny of any company. Small businesses need greater awareness of human resource problems because a few key people can significantly influence the entire operation.

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
HUMAN RESOURCES											
58. Management											
A. Is the company able to hire adequate personnel?											
B. Is the company properly staffed with--											
(1) Management employees?											
(2) Production employees?											
(3) Marketing and sales employees?											
(4) Administrative employees?											
C. Do adequate personnel files exist?											
D. Do statistics indicate acceptable--											
(1) Turnover?											
(2) Retention?											
E. Are there written performance standards?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
F. Are they updated periodically?											
G. Are key executives required to sign annual conflict-of-interest statements?											
H. Is employee morale satisfactory?											
I. Are exit interviews used?											
J. Does management address nepotism?											
K. Other											
59. Communications											
A. Does the company communicate well with employees?											
B. Are such communications in writing?											
C. Are company communications effective for all levels of employees?											
(1) Management?											
(2) Salaried (non-management)?											
(3) Hourly?											
(4) Subcontractors?											
D. Do the company's employees communicate effectively with--											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(1) Customers?											
(2) Suppliers?											
(3) Advisors?											
(4) Regulators?											
(5) Taxing authorities?											
(6) Community?											
(7) Prospects?											
(8) Owners?											
E. Does the company have a suggestion system?											
(1) Is it used to the fullest?											
(2) Does it cover external as well as internal matters?											
F. Does the company request feedback from--											
(1) Customers?											
(2) Employees?											
(3) Suppliers?											
(4) Advisors?											
G. Other											
60. Recruiting											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
A. Does the company hire employees through--											
(1) Campus recruiting?											
(2) Placement services?											
(3) Trade publications?											
(4) Referrals from employees?											
(5) Company training programs?											
(6) Advertising?											
B. Are testing procedures used?											
C. Are they updated regularly?											
D. Do the tests produce expected, acceptable results?											
E. Has the company been able to recruit the kind of personnel it requires?											
F. Has it been done on a timely basis?											
G. Does the company present itself well in brochures and recruiting activities?											
H. Does the company use appropriate interview questions that are regularly updated?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
I. Does the company check references for all new employees?											
J. Other											
61. Hiring											
A. Does the company have hiring policies?											
B. Do they meet the company's objectives?											
C. Are they in writing?											
D. Are they updated periodically?											
E. Are there written employee handbooks or manuals?											
F. Are they current?											
G. Are they used?											
H. Do written job descriptions exist?											
I. Are they accurate?											
J. Are they easy to understand?											
K. Does the company have antidiscrimination policies?											
L. Are they followed?											
M. Other											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
62. Training											
A. Do on-the-job training programs exist?											
B. Are they adequate?											
C. Does the company take advantage of government-sponsored training programs?											
D. Does the company use available tax credits?											
E. Does the company use industry and other training courses to keep its personnel up to date?											
F. Does the company use meetings and other communication methods to keep employees informed?											
G. Does the company use in-house newsletters to keep personnel informed?											
H. Other											
63. Compensation and Benefits											
A. Is there a written compensation administration program and is it reasonable?											
B. Is there a qualified retirement plan?											
(1) Profit-sharing?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(2) Pension?											
(3) 401K plan?											
(4) Other?											
C. Does the company have--											
(1) Deferred compensation for executives?											
(2) Key-person life insurance?											
(3) Group life insurance?											
(4) Adequate health insurance?											
(5) Disability insurance?											
(6) Other?											
D. Does the company annually test the qualification of its benefits under section 89 of the IRS Code?											
E. Are all compensation plans updated?											
F. Is employee compensation reviewed at predetermined dates?											
G. Do promotion policies provide opportunities for advancement?											
H. Are salary and wage policies competitive?											
I. Other											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
64. Motivation											
A. Does the company have a plan to motivate employees?											
B. Is it in writing?											
C. Is it updated periodically?											
D. Is it effective?											
E. Are there different plans for the following types of employees--											
(1) Production?											
(2) Supervisory?											
(3) Clerical?											
(4) Managerial?											
(5) Executive?											
F. Do the incentives include items other than money; for example--											
(1) Security?											
(2) Acceptance?											
(3) Recognition?											
(4) Responsibility?											
(5) Good working environment?											
G. Other											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
65. Evaluation											
A. Does the company have a plan for evaluating employee performance?											
B. Is the plan in writing?											
C. Is it updated periodically?											
D. Is the plan understood by employees?											
E. Are the criteria objective rather than subjective?											
F. Do the evaluations provide a basis for--											
(1) Promotion?											
(2) Demotion?											
(3) Transfer?											
(4) Salary adjustments?											
(5) Awards?											
G. Do the employees help set goals for future evaluations?											
H. Are these goals monitored during interim periods?											
I. Are the goals realistic?											
J. Are the evaluations performed at least annually?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
K. Are the evaluations effective?											
L. Other											
66. Employee Relations											
A. Does the company have a plan to maintain good employee relations?											
(1) Is it in writing?											
(2) Is it updated periodically?											
(3) Does it serve the needs of the employees?											
(4) Does it include such items as--											
a. Company-sponsored events?											
b. Teams?											
c. Flowers or other gifts to employees or their families at times of sickness, injury, or other distress?											
d. Furnishing facilities for eating and rest periods?											
B. Does the plan serve as a--											
(1) Motivator?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(2) Satisfier?											
C. Other											
67. Manpower Planning and Utilization											
A. Does the company plan its manpower needs?											
B. Is the plan in writing?											
C. Is the plan updated periodically?											
D. Are these plans adequately determined and coordinated with production scheduling?											
E. Does the plan include total personnel needs--											
(1) By type?											
(2) How many?											
(3) By classification?											
(4) By department?											
F. Does the plan include staffing at all levels--											
(1) Production?											
(2) Administrative?											
(3) Supervisory?											
(4) Managerial?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
G. Does the plan include a review of the benefits versus costs of overtime?											
H. Does the plan include sources for each type of employee?											
I. Does the plan provide for assigning the right employees to the right positions?											
J. Are these criteria adequate?											
K. Does the system consider the needs caused by--											
(1) Turnover?											
(2) Promotions?											
(3) Retirements?											
L. Other											
68. Law and Regulations											
A. Does the company understand federal, state, and local rules and regulations governing employees?											
B. Are the company's policies--											
(1) In writing?											
(2) Disseminated to appropriate personnel?											
(3) Adequate?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(4) Understood?											
(5) Observed?											
(6) Enforced?											
C. Do the policies consider--											
(1) Discrimination?											
(2) Fair Labor Standards Act?											
(3) Organization Safety and Health Administration (OSHA) requirements?											
(4) Sexual harassment?											
(5) State labor laws?											
(6) Union agreements and requirements?											
D. Other											
69. Union Contracts											
A. If the company recognizes an internal (company union) or external collective bargaining group, is there a written contract in effect?											
B. Has the company experienced frequent strikes or work stoppages?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
C. Does the company have competent labor management personnel?											
D. If not, does the company employ an outside negotiator?											
E. Is there a process for resolving grievances?											
F. Have grievances been--											
(1) Limited in number?											
(2) Promptly handled?											
(3) Adequately resolved?											
G. Other											
70. Health Maintenance											
A. Does the company have a health maintenance plan?											
B. Is the plan in writing?											
C. Is the plan updated periodically?											
D. Does the plan include--											
(1) Preplacement physical examinations?											
(2) Periodic health appraisals?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(3) Care of minor ailments and occupational disabilities?											
(4) Health education?											
(5) Personal health counseling?											
(6) Alcohol and drug counseling?											
(7) An AIDS policy?											
E. Is the company aware of federal and state laws governing health maintenance?											
F. Are physical examinations geared to the needs of the position?											
G. Are the periodic health appraisals in keeping with the employee's position and exposure?											
H. Does the company have an internal emergency treatment center to care for minor ailments so that workers can stay on the job?											
I. Does the company's health education include subjects such as--											
(1) Diet?											
(2) Early treatment of illnesses?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(3) Proper rest?											
(4) Recreation?											
J. Does the company encourage the use of community public health programs?											
K. Does the company encourage physical fitness among its employees?											
L. Does the company provide facilities for physical fitness?											
M. Other											
59. Work Environment											
A. Does the office provide a good work environment, particularly as it relates to--											
(1) Lighting?											
(2) Ventilation?											
(3) Physical access?											
(4) Access to equipment and information needed?											
(5) Grouping of related departments?											
(6) Convenience of employee necessities?											
(7) CRT exposure?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
(8) Noise level from office equipment, and so on?											
B. Are the surroundings conducive to work; for example--											
(1) Are the colors pleasant?											
(2) Is the temperature controlled?											
(3) Are the work stations designed to optimize the work environment?											
(4) Is there a policy statement regarding clean desks and work space?											
C. Is the office properly laid out to provide for efficient work flow?											
D. Has an ergonomics study of the office environment been considered?											
E. Is there a policy regarding employee socialization during work hours?											
F. Is there a policy regarding conflict resolution with employees and managers?											
G. Other											

Management Information Systems and Controls

A management information system is vital to a business in order to maximize effectiveness. When a closely held business is in its early stages, the owner-manager may often maintain most of the company's information in an informal manner. Such maintenance may be adequate to allow that person to make informed decisions about operations. However, as the business expands, employees as well as the owner-manager need access to the information. A formal management information system can provide such access and enhance management decision making. The system usually includes income statements, balance sheets, and other relevant and useful management reports, such as cost and production data.

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
MANAGEMENT INFORMATION SYSTEM AND CONTROLS											
74. Accounting System											
A. Is the accounting system documented and are accounting procedures properly communicated?											
B. Is the system adequate for the needs of the organization?											
C. Is there a written chart of accounts?											
(1) Is it adequate?											
(2) Does it contain descriptions?											
D. Are computer programs tailored to the industry, the company, or individually programmed?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
E. Is the system's integrity reviewed on an annual basis?											
F. Is the system properly maintained?											
G. Is the system backed up and supported offsite in case of a natural disaster or breakdown?											
H. Does the system provide input controls to ensure the integrity of the information input into the system?											
I. Are security controls required by the information system management, including protection of sensitive information?											
J. Are security controls documented, fully understood, and implemented?											
K. Are security controls reviewed periodically?											
L. Are the financial implications of alternative strategies evaluated before decisions are made?											
M. Are financial statements prepared on a timely basis and transmitted to the appropriate personnel?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
N. Is there an effective policy for extending credit?											
O. Other											
75. Financial Statements											
A. Does the system provide--											
(1) Balance sheets?											
a. Compared with prior year?											
b. Compared with budget?											
(2) Income statements?											
a. Compared with prior year or prior period?											
b. Compared with budget?											
c. Comparing current period and year-to-date?											
B. Are income statements prepared for--											
(1) Divisions?											
(2) Departments?											
(3) Product lines?											
(4) Market segments?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
C. Do comparative statements show variances--											
(1) In dollars?											
(2) Including percentage of variances?											
D. Do income statements show comparison percentages with sales?											
E. Other											
76. Other System Considerations											
A. Is the word processing system integrated with the accounting system?											
B. Is word processing data backed up and stored off site?											
C. Are word processing personnel cross-trained?											
D. Is there an overall coordination of the information systems?											
E. Are non-accounting and non-word processing systems, such as production control or marketing systems, coordinated with accounting and word processing where possible?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
F. Is information from production and marketing systems compared with the financial statement information for validity?											
G. Other											
77. Other Management Reports											
A. Are sufficient statistical data maintained to produce additional management data as requested?											
B. Are ratios used?											
C. Are budgets and revised budget comparisons used?											
D. Do these reports compare actual year-to-date data and remaining budget data to arrive at estimated results for the year?											
E. Are financial reports compared to industry data?											
F. Does the company use--											
(1) Break-even calculation?											
(2) Direct-costing techniques?											
(3) Return on investment?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
G. Does the system provide for management reports, such as--											
(1) Backlog?											
(2) Production data?											
(3) Unit costs?											
(4) Variance reporting?											
H. Are graphics used to portray data and comparisons?											
I. Are there cash flow reports?											
J. Other											
78. Utilization of Information											
A. Are financial statements--											
(1) Adequate in detail?											
(2) Frequent enough?											
(3) Prepared in a timely manner?											
(4) Available to those who need them to make decisions?											
(5) Prepared internally?											
(6) Properly scrutinized?											
B. Do managers understand the financial statements?											
C. Other											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
79. Special Review Areas											
A. Are systems and procedures--											
(1) In writing?											
(2) Adequate?											
B. Does the company have a plan for information systems development?											
(1) Is the plan reviewed annually?											
(2) Is the plan supported by management?											
C. Are internal controls adequate for high-risk areas?											
D. Does the company control the use of forms?											
E. Are important documents protected from fire or other disasters?											
F. Is insurance coverage reviewed at least annually?											
G. Are written accounting manuals used?											
H. Are there written purchasing procedures?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
I. Is there at least annual review of tax planning policies to take advantage of available tax strategies?											
J. Are securities and other important documents kept in a safe deposit box?											
K. Other											
80. General Controls											
A. Does the owner/manager understand and use financial statements and reports prepared by accounting personnel?											
B. Do accounting personnel have experience and training appropriate for their jobs and understand their responsibilities?											
C. Does your understanding of the client indicate that the owner/manager and accounting personnel are competent, possess high integrity, and are concerned about the quality of their work?											
D. Are documents, records, and assets physically controlled to prevent their destruction or unauthorized use?											
E. Is the financial condition of the company sound?											

QUESTION	RESPONSE TO QUESTION			RESPONSIBLE PERSON(S)	OPPORTUNITY FOR IMPROVEMENT					COMMENTS	WORKPAPER REFERENCE
	Yes	No	N/A		N	P	G	S	C		
F. Are financing sources other than the owner/manager available?											
G. Are the owner/manager's attitudes about income taxes and business risks conservative?											
H. Does the owner/manager understand the importance of control procedures?											

I. Describe the following features of the control environment:

(1) Describe the organization of management, accounting, and operations personnel or attach an organization chart.

(2) Describe the owner's attitude and practices that may affect the risk of errors or irregularities in the financial statements. Consider such factors as deteriorating operations creating a need for working capital, financial statements ratios influencing lender's decisions, motivation of owner to reduce income taxes, and owner's history of taking unnecessary business risks.

(3) In the case of an absentee owner, describe the manager's compensation method and whether it is reasonable.

(4) Describe the owner's awareness of the importance of a good accounting system, performing owner/manager controls, and understanding and use of related financial information.

(5) List the accounting personnel, their positions and length of employment; describe briefly their education and experience and evaluate their job performance based on firm experience with the client.

BIBLIOGRAPHY

Hundreds of articles on various aspects of operational auditing have been published over the years, with a large number appearing in the *Internal Auditor,* a publication of the Institute of Internal Auditors. Several of the books listed here, particularly the AICPA guidelines and the Herbert book, include longer bibliographies. Some articles have been gathered in two "compendium" publications of the Association of Government Accountants.

American Institute of Certified Public Accountants. Management Advisory Services Guideline Series Number 6: *Guidelines for CPA Participation in Government Audit Engagements to Evaluate Economy, Efficiency, and Program Results.* New York: AICPA, 1977.

American Institute of Certified Public Accountants. *Operational Reviews of the Electronic Data Processing Function.* New York: AICPA, 1978.

Association for Systems Management. *Auditing for Systems Improvement.* Cleveland: Association for Systems Management, 1972.

Brink, V. Z., J. A. Cashin, and Herbert Witt. *Modern Internal Auditing: An Operational Approach.* New York: Ronald Press, 1973.

Cadmus, Bradford. *Operational Auditing Handbook.* New York: Institute of Internal Auditors, 1964.

Edds, John A. *Auditing for Management.* Canada: Sir Isaac Pitman, Ltd., 1979.

Flesher, Dale L. *Operations Auditing in Hospitals.* Lexington, Mass.: Lexington Books, 1976.

Herbert, Leo. *Auditing the Performance of Management.* Belmont, Calif.: Lifetime Learning Publications, 1979.

Leonard, William P. *Management Audit.* Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962.

Lindberg, R. A., and T. Cohn. *Operations Auditing.* New York: AMACOM, 1972.

Norbeck, E. F., et al. *Operational Auditing for Management Control.* New York: AMACOM, 1969.

Scantlebury, D. L., and R. B. Raaum. *Operational Auditing.* Arlington, Va.: Association of Government Accountants, 1978.

Thierauf, Robert J. *Management Auditing: A Questionnaire Approach.* New York: AMACOM, 1979.

U.S. General Accounting Office. Standards for Audit of Governmental Organizations, Programs, Activities and Functions. Washington: GAO, 1981.

61/100 ASSISTING A FINANCIALLY TROUBLED BUSINESS

CONTENTS

61/100 ASSISTING A FINANCIALLY TROUBLED BUSINESS

61/105 SCOPE OF THIS PRACTICE AID

.01 Practitioners frequently assist clients by providing services that will help their business to grow profitably. For example, they may identify areas requiring operational improvement, establish budgeting and cost controls, and obtain or restructure financing. Generally, they provide these services to a going concern whose continued operations are presumed. Sometimes, however, practitioners are engaged to assist financially troubled companies whose survival is questionable.

.02 This practice aid describes the consulting services a practitioner may provide to a financially troubled client. The practice aid's major emphasis is on fact-finding, analysis of the current situation, and consideration of alternatives for resolving the client's problems (for example, financial restructuring, downsizing of an existing entity, liquidation, term debt workout, or bankruptcy). The practice aid also discusses how the practitioner can assist in developing plans for and implementing the solution. In addition to describing approaches to all phases of such an engagement, this practice aid contains a case study with a sample engagement letter and final report, and illustrative checklists and forms.

.03 This practice aid *does not* cover those situations in which a practitioner is appointed to a management role in a financially troubled company.

61/110 TYPICAL ENGAGEMENT SITUATIONS

.01 An engagement to assist a financially troubled business may arise from such circumstances as the following:

- The practitioner discovers the client's financial difficulty while providing other services and recommends a consulting engagement.
- The client recognizes that its problems with creditors are serious and asks a CPA for assistance. The financial problems may be just beginning or may be longstanding.
- The client's attorney or creditor recommends that it seek the financial expertise of a CPA.

.02 The causes of financial problems that warn of future collapse can usually be detected years ahead of the accounting events that signify failure. The first signs of failure are often managerial, not financial, problems. In fact, the Turnaround Management Association attributes between 70 and 75 percent of business failures to poor management, citing the following situations as typical:

- Boards of failed companies often have had an inappropriate mix of skills for a long time before the firm began to falter (for example, too many engineers and too few people with financial expertise).
- Too many decisions are made by one person without active participation by others.

.03 Other causes include obsolete inventories and production facilities, and employee-management conflicts leading to high turnover.

.04 Failing companies often lack or are deficient in systems or information needed to support operations. These include:

- Systems for planning or accounting information suitable to support corporate planning
- A budget system to inform management of actual performance against budget
- A cash flow plan that supports planning for periods of peak cash needs
- A costing system with adequate information on the amount of profit generated from each unit of production

.05 Other key causes of financial problems are overtrading, high leverage, or the launching of too large a project. Overtrading may cause sales to increase faster than the company can collect, thereby depleting cash. High leverage can bring financial misfortune when such events as an unexpected sales decline or a cost overrun occur.

.06 Each or a combination of these factors can endanger a company's financial security.

61/115 ENGAGEMENT ACCEPTANCE CONSIDERATIONS

.01 Greater risks are involved in an engagement to assist a financially troubled client than in most other engagements. The risks are associated with business and emotional issues that the practitioner does not normally encounter. Consequently, the practitioner needs to be especially careful when deciding whether to accept the engagement. To determine whether the CPA firm is interested in and is capable of conducting the engagement, the practitioner assesses the risks of litigation against the firm or practitioner, the consistency of the engagement with the firm's policies and goals, and the coverage provided by its liability insurance for performing the service. The practitioner also considers whether the firm has or can obtain the technical and industry expertise needed to provide the service. Exhibit 61A-1 in appendix 61/A provides a sample checklist of questions regarding CPA firm issues that the practitioner needs to consider.

.02 Client acceptability is also an extremely important consideration in deciding whether to accept the engagement. To determine acceptability, the practitioner assesses the honesty, integrity, and competence of the owners and management, their reputation in the community, their ability to take criticism, and the company's ability to pay for the practitioner's service.

Answers to the questions in the Engagement Acceptance Checklist—Client Considerations provided in exhibit 61A-2 will help the practitioner determine client acceptability.

.03 The practitioner needs to consider obtaining a retainer before providing any services and should monitor engagement time and costs very carefully. This is because, if the company files for bankruptcy, services rendered prior to the filing will become unsecured claims against the estate. Before accepting the engagement, the practitioner also meets with the client's attorney to discuss the client's legal situation.

.04 Appendix 61/A includes additional forms that the practitioner can use to reach a decision about accepting the engagement.

61/120 CLIENT BENEFITS

.01 An engagement to assist a financially troubled company may benefit the client in the following ways:

- Restoration of financial stability
- Minimization of asset loss
- Provision of an opportunity for client management to direct its attention to long-term strategy rather than mere survival
- Improvement in creditors' confidence in the client
- Implementation of financial controls to prevent the recurrence of problems
- Development of strategies for debt renegotiation
- Development of a business plan

61/125 UNDERSTANDING WITH THE CLIENT

.01 The practitioner may wish to conduct a preliminary survey to gain information that will help to develop the appropriate objectives and scope for the engagement and to determine a suitable fee. The practitioner needs to reach an understanding about these matters with the client before outlining them in an engagement letter.

Conducting a Preliminary Survey

.02 In some instances, the practitioner may need information to develop the understanding with the client or to submit a proposal explaining the services to be provided, the approach to be taken, and the associated costs. A preliminary survey can provide such information. Possible goals of performing a preliminary survey include:

- To identify major problems, including operational problems, and their causes

- To determine the financial condition of the company
- To differentiate between problems that need immediate attention if the company is to survive and problems that must be addressed in the long term to rebuild the company
- To recognize the long-term prospects of the company

.03 The basic information gathered during the preliminary survey provides an overview of the client's situation and supports a preliminary assessment of the root cause of the financial problems. To make this assessment, the practitioner needs to review the following information:

- Financial records, including financial statements, balance sheets, tax returns, vendor and customer contracts, budgets, and other pertinent business information (see exhibits 61A-3 and 61A-4)
- External-influence information, such as local economic data, industry data and trends, government regulations, as well as information about the client's competitors
- Management-control and decision-making information concerning operations, capitalizations, product pricing, and marketing
- Management assessment of key personnel's experience, educational background, and overall ability to implement changes that may be required (see exhibit 61A-5)

.04 Less time is needed for a preliminary survey of an existing client because the practitioner is familiar with its operations, personnel, and other key elements.

Engagement Letter

.05 After the practitioner and client agree to an engagement, they reach an understanding about its objectives, scope, and conduct. The practitioner prepares an engagement letter describing the services to be rendered, the manner in which they will be performed, and the estimated fee and expenses. At the outset, the practitioner explains that positive results are not guaranteed and that the engagement fee does not depend upon the outcome of the analysis or the recommended plan of action. Given the client's financial weakness, the practitioner may wish to request a retainer and to reserve the right to withdraw from the engagement at any time. This reservation will be important if the practitioner discovers that the client has acted unethically or in bad faith.

.06 In the engagement letter, the practitioner may also wish to—

- Describe the request for the engagement.
- Identify the client's financial problems.
- Cite the potential benefits of the engagement.
- Describe each phase of the engagement, including how the client will receive feedback on the engagement's progress and conclusion.

- State the client's responsibilities.
- Detail the conditions under which the practitioner can discuss aspects of the company with creditors.
- Identify the personnel assigned to the engagement.
- Identify management's liaison for the engagement, if any.
- Explain how the fee was derived, including the manner of billing and the payment terms.

.07 If the scope of an engagement changes after it has begun, the practitioner sends the client a revised engagement letter that states the new scope and terms. Exhibit 61B-1 in appendix 61/B provides a sample engagement letter.

61/130 ENGAGEMENT SCOPE

.01 Typically, an engagement to assist a financially troubled company consists of evaluating the client's situation, analyzing the options available, recommending a plan of action, and in some situations, assisting in implementing the plan. Although each situation will differ, the engagement approach generally is the same.

.02 In addition to analyzing the situation and recommending solutions, the practitioner may be requested to assist in preparing cash flow statements and financial projections, developing a long-range strategic plan for reorganization, implementing and monitoring the plan, and developing negotiation strategies for the company to use to restructure its debt.

.03 The practitioner may encounter conditions that differ, however, from other consulting engagements. For example, creditors may be hostile, and client management may be too distraught to carry out its normal responsibilities. Despite such conditions, the client will need to attempt to make timely decisions.

.04 When the circumstances indicate that liquidation of the company's assets is the best solution, the practitioner will need to assist the client in developing a liquidation plan. Part of the plan might include forecasted liquidation balance sheets and appraisals.

.05 Most engagements will involve evaluating critical tax issues. The practitioner therefore needs to be familiar with the federal and state tax implications of liquidation and bankruptcy or to consult with knowledgeable professionals about them. In cases when the company is considering seeking court protection under Chapter 11, the practitioner must be aware of the local bankruptcy guidelines and work with bankruptcy counsel to ensure that the company (debtor) files the appropriate documents in a timely manner. Such documents can include information about the financial condition of the company as of the date of filing bankruptcy and bi-weekly or monthly financial information subsequent to filing.

61/135 PRACTITIONER'S ROLE

.01 Practitioners assisting financially distressed clients are often subject to strains they do not experience during engagements for financially secure clients. For example, practitioners will often become exposed to pressures induced by cash flow shortages, demands from bankers and creditors for payment, and short time periods to produce information, along with other pressures brought on by taking a more active role with management. To deal with these pressures successfully, practitioners ensure that their role of providing objective analysis of the client's situation and recommending a course of action is clearly understood by client management. Practitioners should not assume a management role if the client appears shell-shocked by financial and other company problems, and they should avoid management acts such as signing checks and corporate documents. Decision making is solely the client's responsibility.[1] Failure to maintain a strict advisory role may expose practitioners to legal liability if the client or its creditors are dissatisfied with future client performance.

.02 In the event the practitioner provides attest services for the client, professional standards *allow only an* advisory role during an engagement. Professional standards do allow performance of management duties in an engagement of this type, but a conflict of independence in the attest function must be avoided if that relationship exists.

.03 Practitioners also need to avoid advising on legal matters, especially during engagements in which a reorganization or bankruptcy is the recommended action. These matters are subject to complex law and regulations, and advice on them is often hard to separate from financial advice. The best approach is for the practitioner to work closely or confer continually with the client's attorney or with other attorneys who specialize in financial law. Only an attorney should provide legal advice.

61/140 ENGAGEMENT APPROACH

Fact-Finding

.01 During the fact-finding phase of the engagement, practitioners build on the information obtained in the preliminary survey. Often, practitioners need to complete this phase very quickly because the client requires urgent assistance. Through interviews with the client's personnel and attorney, and review of company documents and data (for the last three to five years), practitioners can learn additional facts about internal and external influences on the company's situation.

.02 The additional financial information obtained includes unrecorded assets, such as patents and leases, the amounts of uninsured casualty losses, misappropriated funds, if any, and write-offs. Additional industry information includes the company's life-cycle position compared with industry patterns, standard ratios, and performance benchmarks. Practitioners can get much of the industry information from trade organizations and standard reference services, such as Dun and Bradstreet, Robert Morris Associates, and Standard and Poor's.

[1] A practitioner may be engaged to function in a client management role, but such services are not the subject of this practice aid.

.03 To advise management appropriately, the practitioner needs a full understanding of the company. By reviewing the following information, the practitioner can adequately assess the condition and status of the company to provide proper recommendations. Depending on its adequacy and availability, this information will sometimes need to be created.

.04 *Management and organization information*

- The chart of organization
- Employee staffing levels
- Management compensation
- Employee compensation
- Labor contracts

.05 *Sales information*

- Annual gross sales by major customers
- Sales and gross profit by product line
- Current aged receivables
- Monthly sales data
- A list of former major customers

.06 *Purchasing information*

- Annual purchases by supplier
- Current payables
- Monthly purchase order data

.07 *Production cycle information*

- Job cost reports by product line
- Production reports by product line
- Inventory and materials shrinkage

.08 *Legal information*

- Financial judgments
- Regulatory requirements and citations for violations

- Pending legal action
- Warranty and contractual obligations

.09 *Debt obligations*

- Leases
- Debt instruments

.10 To facilitate the fact-finding phase, practitioners may wish to use a diagnostic process. Diagnostic techniques for identifying and resolving client problems are presented in section 60/100, "Operational Audits." Many of the checklists in section 60/100 are available on diskette: *Small Business Consulting Tool: Diagnostic Review Checklists for Maximizing Profits* (New York: AICPA, 1992).

Evaluating the Client's Situation

.11 After completing the fact-finding phase of the engagement, the practitioner reviews and evaluates the client's circumstances in order to recommend an appropriate course of action. During this phase, the practitioner analyzes the following elements of the client's financial condition.

.12 *Major costs.* The practitioner analyzes a list of company expenses ranked in order of amount and categorized as direct, indirect, or administrative to identify costs that are unusually high.

.13 *Inventory and profit margins.* The practitioner evaluates the profit margins of each product or service to determine whether to recommend that less profitable products or services be discontinued. Inventories should be aged by product line and reviewed for net realizable value, particularly obsolescent and slow-moving items.

.14 *Cash flow forecasts.* The practitioner prepares or revises financial forecasts for thirty, sixty, and ninety days and for the next six-, nine-, and twelve-month periods. In some engagements, the cash flow forecast may need to be even more short-term, perhaps weekly.

.15 *Industry trends.* The client's financial problems may be characteristic of a declining industry or unique to the client. In the case of an industry-wide decline in demand for the product or service, the practitioner usually encourages the sale, liquidation, or downsizing of the business.

.16 *Accounts payable and credit analysis.* The practitioner reviews all credit arrangements with suppliers and lenders and also ages and analyzes accounts payable. The practitioner ranks creditors according to their immediate need for payment and their likelihood of pursuing litigation to collect. In addition, the practitioner carefully considers whether the payables can be satisfied through the sale of nonessential assets or secured asset loans.

.17 *Receivables.* The practitioner ages receivables and evaluates credit and collection policies and activities.

.18 In analyzing these elements of the client's financial situation, the practitioner usually finds that the problems are caused, at least in part, by such factors as—

- Inefficient operations.
- A lack of certain management skills.
- Failure to monitor the competitive environment.
- Ineffective marketing.
- Inappropriate credit policies and activities for both receivables and payables.
- Undercapitalization.
- Excessively rapid growth.
- Weak financial controls, such as inappropriate pricing, poor budgeting procedures, or inadequate cost accounting.
- Crisis management instead of long-term planning.

Developing Recommendations

.19 During the fact-finding and evaluation phases, the practitioner may detect certain critical problems, which usually provide the basis for recommendations. To facilitate the analysis and recommendation process, the practitioner may find it helpful to assemble information in a matrix, such as that illustrated in figure 61-1.

.20 At this point, it is generally apparent whether the company can continue to operate for at least a short period or whether it must be liquidated. The experienced practitioner will be in a position to consider recommending a solution such as a refinancing, a workout with creditors, liquidation, Chapter 11 proceedings, or some other action. Whatever the outcome, the practitioner can provide a valuable service by assisting in developing and implementing a plan of action. At this point, it is also appropriate for the practitioner to modify the agreement with the client to include these services.

.21 **Strategies for Continuing Operations.** If continuing operations is determined to be feasible, the practitioner considers recommending the following strategies and eventually may include them in the plan of action. In selecting strategies, the practitioner keeps in mind that restructuring of a closely held family business requires tact and consideration. It is important to use techniques that allow the owners to save face because they will continue in management of the company.

Figure 61-1
Illustrative Client Problem Matrix

Cause	*Effect*	*Recommendations*	*Priority*
Death of a key person	Deteriorating customer relations	Promote assistant Hire replacement	B
Cash shortage	Inability to purchase goods	Negotiate with supplier to deliver on partial payment	A
	Inability to meet payroll	Factor receivables Sell assets	
Hostile creditor	Inability to acquire goods	Find alternative sources	A
	Pending judgment	Seek Chapter 11 protection	
Loss of a major customer	Rapid decline in sales	Assess alternative product or uses of idle facility	B
Undercapitalization	Inability to borrow	Sell stock to third parties Encourage owner to contribute additional capital	B
Obsolete plant	Slow production due to out-of-date technology	Modernize equipment Consider contracting outside, possibly with a foreign producer	C

Priority key:

A - Urgent
B - Needs attention
C - Set for later consideration

.22 *Management strategies.* General management strategies may include deferring maintenance and allocating resources among divisions and departments to support profitable lines and eliminate marginal lines. The practitioner should also evaluate the need to add management team members to offset weaknesses identified in the current management team. Another strategy is to select a turnaround expert, who, as an objective party, can make difficult management decisions more easily than the owners of the closely held business.

.23 *Financial strategies.* Financial strategies will vary according to the client's viability, which may depend on the value of its real estate assets or its product line compared with its outstanding obligations. The practitioner considers drawing on venture capital sources as well as selling stock or part of the business. However, a troubled business is unlikely to obtain venture capital, sell stock, or otherwise raise funds unless the product or service is highly desirable and a plan can be developed for the future. In some situations, an employee stock purchase may be feasible.

.24 Often the troubled business can work out agreements with existing creditors who usually tighten the credit terms. However, the client can attempt to negotiate favorable credit terms and delay payment to creditors for forty-five to ninety days. Selling or using receivables as collateral can ease short-term cash deficiencies, although conventional bank financing is a preferable and less expensive option.

.25 Late or nonpayment of payroll taxes is a common situation in troubled companies. Large penalties and interest charges may result. In extreme cases, levies on bank accounts and liens on property may be made, or legal action may even be taken against owners and officers. To avoid these problems, the client needs to deposit payroll taxes at the time the payroll is prepared.

.26 Nonessential expenses, such as fringe benefits, may be suspended or reduced. Idle property may be sold or leased. The client can also consider purchasing such services as janitorial services and sales representation rather than using employees. Leases may be renegotiated and leased property returned. Equipment costs can be lowered by renting or leasing replacements. The practitioner also reviews governmental programs for possible assistance.

.27 *Production strategies.* The practitioner needs to evaluate staffing at all levels. If personnel can be cut back in production areas, fewer administrative or support personnel may also be necessary. In some cases, paying overtime or using temporary help for a short period may be preferable to adding full-time permanent employees. Supply contracts may need to be restructured to provide for delayed delivery and extended terms. The client must consider putting on hold any plans to expand plant or equipment. If contracts have already been signed, delay or cancellation of the expansion needs to be negotiated with the contracting company.

.28 *Marketing strategies.* Inventory on hand needs to be analyzed, and sales efforts need to be reviewed and promotions considered for slow-moving products. The client can consider offering the sales force incentives to sell selected items above specific sales goals. The practitioner carefully reviews the gross margin of each product line and cost center. In some cases, product prices may need to be increased to improve profitability, or products may need to be discontinued. A price increase may be viable if the product is not price sensitive and has a steady market. Another strategy is to evaluate potential new markets and services that will add to gross sales without requiring large capital outlays. The practitioner who lacks marketing skills also needs to talk to the client about engaging a marketing consultant.

.29 *Chapter 11.* Seeking court protection under Chapter 11 of the bankruptcy code is a possible course of action. The feasibility of this alternative requires careful evaluation, and, if chosen, it requires complex planning. The purpose of Chapter 11 is to rehabilitate the business. The filing for protection allows the company time to develop a plan of reorganization so that it can pay its creditors. Most often, the debtor remains in possession, operates the business, and develops the reorganization plan. If, however, the bankruptcy judge and creditors suspect fraud, dishonesty, or incompetence on the part of the company management, an independent trustee is appointed to run operations. The debtor has the exclusive right to file with the court within 120 days a plan to reorganize the business and satisfy creditors' claims. The debtor then has an additional sixty days to get the plan accepted by the creditors. If the plan is not filed on time or is unacceptable, other parties of interest may file a proposed plan.

.30 The process of seeking protection is expensive because it requires a great deal of planning and the services of attorneys and certified public accountants. The reorganization also requires an inordinate amount of management's time, which may be unavailable in a small company. If a satisfactory plan of reorganization cannot be established, the company reverts to Chapter 7, which provides for the liquidation of a company in order to satisfy the creditors' claims.

.31 The practitioner can be engaged by the debtor in possession or the trustee to provide information to the court and creditors' committee. The information could include—

- A cash flow statement.
- A classified balance sheet.
- A break-even analysis.
- A classification of creditors' claims.
- Operating statements.

.32 To ensure the highest priority for payment of services, the practitioner needs to be appointed by the court before beginning work for a client who has filed under the bankruptcy code. To realistically approach an engagement to provide services involving Chapter 11, the practitioner needs to be aware of the statistics on the survival of companies seeking this protection. According to the Turnaround Management Association, less than 30 percent of companies with sales under $25 million, and less than 69 percent of those with sales over $100 million, carry out an effective plan and remain in business under the same ownership.

.33 *Other strategies.* The practitioner considers renegotiating labor contracts. The renegotiated contracts can reduce costs for the short term in exchange for long-term escalation clauses. Meetings with employees to request their assistance by accepting salary reductions or cutbacks in hours may be helpful.

.34 **Liquidation.** When the company is too burdened to pay off its debt in a reasonable period and has little equity or goodwill, the best course of action may be to discontinue operations. The client can either arrange an informal liquidation with the creditors or file for bankruptcy under Chapter 7. In either case, the client needs to consult legal counsel before making a decision.

.35 If the liquidation is informal, the practitioner and client should follow the procedures of a formal liquidation under Chapter 7 as closely as possible. Such an approach will improve the chances for a successful informal liquidation and facilitate the transition to a Chapter 7 proceeding, if required.

.36 An informal liquidation requires meeting with creditors to outline the company's financial condition. Assets are reported at estimated net realizable values, and liabilities are categorized as secured or unsecured. The creditors require a plan that projects the amount and timing of payments to them. If any creditor rejects the informal arrangement, the client needs to secure protection from the bankruptcy court.

.37 The practitioner can assist the company in evaluating the alternatives available for disposing of assets. In doing this, the practitioner will find helpful guidance in section 75/100, "Mergers, Acquisitions, and Sales," and 13/100, "Valuation of a Closely Held Business." The practitioner may wish to arrange a separate engagement for a valuation of the company. If real estate is to be valued, a qualified real estate appraiser will be needed, and if substantial equipment is involved, a qualified equipment appraiser. The practitioner will also find guidance in two AICPA Continuing Professional Education self-study programs, *Bankruptcy I* and *Providing Services to Start-Up and Financially Troubled Businesses* (the latter is also presented as a one-day seminar).

.38 Sale of all or part of the company as a going concern may yield the largest return, but it must take place while the company still has its customers and key employees. A company under the protection of Chapter 11 is attractive to some investors because liabilities are determinable and, if unsecured, are generally discounted. If no suitable buyer can be found, the practitioner evaluates other methods of disposal of the assets. The client's competitors may wish to buy customer lists and equipment. If a sale of assets cannot be arranged, an auction may be the last resort.

61/145 ENGAGEMENT MARKETING

.01 Practitioners have various opportunities to market their expertise in assisting financially troubled businesses. They can cultivate other service professionals, such as bankers, attorneys, and insurance agents, as referral sources. One way to cultivate these professionals is to conduct seminars on how members of each of these professions can identify a troubled business at an early stage. Another seminar topic is how these professionals can interface to assist the troubled client.

.02 Practitioners can also market their services through contacts with attorneys who specialize in bankruptcy law. In discussions, they can brief these attorneys on the support staff available to practitioners, the basic approach used to assist troubled businesses, and the fees involved.

.03 The most promising market sources may be the practitioners' own clients. Practitioners can find leads to prospects by carefully reviewing client files and using financial models that predict problems to monitor the monthly financial statements of borderline clients. Referrals by clients whom practitioners have assisted will be the best marketing tool.

61/150 CONCLUSION

.01 Although the situation of each financially troubled company is unique, the general approach for providing consulting services probably will be the same for all. The engagement approach requires a team effort by legal counsel, management, and the practitioner, the latter providing an independent, objective analysis. Although difficult, this type of engagement can be very rewarding because it allows the experienced practitioner to use many skills acquired during years of practice.

APPENDIX 61/A

SAMPLE FORMS AND CHECKLISTS

Exhibit 61A-1

Engagement Acceptance Checklist—CPA Firm Considerations

	Yes	No
1. Will the engagement create conflict-of-interest or independence problems?	______	______
2. Will the engagement affect errors and omissions insurance for—		
a) Availability?	______	______
b) Cost?	______	______
c) Coverage?	______	______
3. Do we have adequate knowledge of—		
a) The industry?	______	______
b) Bankruptcy rules and procedures?	______	______
4. Do we have adequately trained staff to meet the engagement objectives?	______	______
5. Is the engagement consistent with our firm's goals and policies?	______	______
6. Will the engagement adversely affect the firm professionally?	______	______

Exhibit 61A-2

Engagement Acceptance Checklist—Client Considerations

	Yes	No
1. Have we contacted the client's prior accountant?	______	______
2. Has the company been bankrupt before?	______	______
If so, when? ________________________________		
3. Are the owners-managers capable of dealing with the situation and carrying out the plan?	______	______
4. Are company records up to date and reliable?	______	______
5. Will company managers cooperate in carrying out suggestions?	______	______
6. Is the company current on all state and federal income and employment taxes and on all sales taxes?	______	______
7. Does the industry have a history of illegal practices?	______	______
8. Are the owners and managers of high integrity and honesty?	______	______
9. Does the company have the ability to pay the accounting and consulting fees?	______	______

Exhibit 61A-3

Permanent Information Form

Client

Name ______________________________
Address ______________________________
____

Contact ______________________________
Phone(s) ______________________________

Troubled Business (if different)

Name ______________________________
Address ______________________________
____

Contact ______________________________
Phone(s) ______________________________

Prior accountant ______________________________
Attorney(s) (including bankruptcy specialists) ______________________________
Banking relationships ______________________________
____

Principals (Stockholders)

______________ Profile # ______________
______________ Profile # ______________
______________ Profile # ______________
______________ Profile # ______________
______________ Profile # ______________
______________ Profile # ______________

Managers (if different)

______________ Profile # ______________
______________ Profile # ______________
______________ Profile # ______________
______________ Profile # ______________
______________ Profile # ______________
______________ Profile # ______________

Prior financial information (attach statements and original chart)

Years ________ ________ ________ ________ ________ ________ ________ ________

Number of locations, plants, etc. (attach square footage and location)

____

Obtain copies of union agreements and pension and profit plans ______________________________

Disposition of reports/correspondence

Distribution ______________________________
____
____

Number of copies ______________________________
____
____

Fee arrangements ______________________________
____

Exhibit 61A-4

Company Profile

Name ______________________________

Major creditors/suppliers

Company	*Amount Due* Total	Disputed	*Comments*

Major customers

Company	*Account Balance*	*Comments*

Existing and pending litigation

____
____
____

Union relationship

____
____
____

Industry standards	Comments/analysis (key ratios, illegal acts, etc.)

Exhibit 61A-5

Key Personnel Profile

(Managers/Principals)

Name ____________________

Length of service ____________________

Relevant experience ____________________

Function or title ____________________

Reporting relationships (direct/indirect) ____________________

Evaluation

Strengths ____________________

____

Weaknesses ____________________

____

Assessment of capacity for change

Original ideas offered ____________________

Acceptance of ideas ____________________

Personal characteristics (integrity, sincerity) ____________________

____

Comments and summary ____________________

____

____

Exhibit 61A-6

Engagement Administration Checklist

Engagement Acceptance	*Date Completed*
1. Permanent information form	______
2. Engagement acceptance checklist of CPA firm considerations	______
3. Engagement acceptance checklist of client considerations	______
4. Budget and engagement objectives	______
5. Engagement letter returned and signed	______

Engagement Performance

	Person Responsible			Date	Date
Activity	Client	Attorney	CPA	Due	Completed
______	______	______	______	______	______
______	______	______	______	______	______
______	______	______	______	______	______
______	______	______	______	______	______
______	______	______	______	______	______
______	______	______	______	______	______
______	______	______	______	______	______
______	______	______	______	______	______
______	______	______	______	______	______
______	______	______	______	______	______
______	______	______	______	______	______

APPENDIX 61/B

CASE STUDY: ASSISTING FINANCIALLY TROUBLED FINE FAMILY FOODS, INC.

Fine Family Foods, Inc. is a single-site family restaurant and lounge with annual sales of approximately $1 million. The company is experiencing financial difficulties due to increased competition, a deteriorating building, and an expensive, but unsuccessful, attempt to automate its operations.

The company is on cash-and-carry terms with all of its suppliers, and several creditors are threatening legal action. The building and grounds require major improvements to meet health standards. The company's lease makes it responsible for such improvements. The landlord is bringing legal action to collect back rent, and the company that leased the defunct computer is suing for payment for equipment and software.

Tom Jones, the owner-manager of Fine Family Foods, Inc., contacted his CPA, William Smith, for assistance in resolving the financial problems. Smith's familiarity with the business and his experience with similar situations permits him to accept the engagement. He later forwards an engagement letter to Mr. Jones (exhibit 61B-1). Smith also advises Jones to seek the counsel of an attorney specializing in financially troubled businesses. He provides Jones with a list of attorneys with whom he has worked before.

Smith meets with the client and the attorney to gather information about the legal contingencies and remedies. After discussions with Jones, he agrees to compile a current comparative financial statement and cash flow forecasts of future operations. Additionally, he agrees to prepare a written report (exhibit 61B-2) of recommendations about the current status of the business and alternative actions for the future. He also agrees to prepare a balance sheet adjusted to liquidation values, which will be used for negotiating with unsecured creditors.

Exhibit 61B-1

Engagement Letter

William Smith and Associates
10 South Street
Anytown, USA 12345

January 4, 19XY

Mr. Thomas Jones
Fine Family Foods, Inc.
1 Main St.
Anytown, USA 12345

Dear Mr. Jones:

This letter will confirm the terms of our engagement to provide consulting services and our understanding of the nature of those services.

The objectives of the engagement are to—

- Assist you in gathering the information necessary to make decisions about the feasibility of continuing the operations of your company.
- Provide you with a report detailing our analysis of and recommendations about your financial situation.
- Assist in preparing a plan for reorganization, including appropriate financial information.

To meet the above engagement objectives, we will need the assistance of your staff. We will rely on them to provide us with current and historical financial statements, organization charts, and information about financial projections, cash flow, marketing, staffing, comparative industry statistics, and other information as required.

At the conclusion of the engagement, we will prepare a report of our findings and recommendations regarding the viability of your business. We will submit the report to you by January 31, 19XY.

Our fee for this engagement will be $X,000, to be paid as follows: a retainer of $X,000 in advance of the start of the engagement; an additional retainer will be due as each prior retainer is used.

Either party reserves the right to terminate this engagement upon presentation of written notice.

If this letter correctly expresses your understanding, please indicate by signing the enclosed copy of the letter and returning it with a retainer of $X,000 as authorization to proceed with the engagement.

Sincerely,

William Smith, CPA

Accepted by ____________________
Title ____________________

Date ____________________

Exhibit 61B-2

Final Report

William Smith and Associates
10 South Street
Anytown, USA 12345

January 31, 19XY

Mr. Thomas Jones
Fine Family Foods, Inc.
1 Main St.
Anytown, USA 12345

Dear Mr. Jones:

We have completed the analysis of the financial situation of your company. Current and forecasted financial statements as of December 31, 19XX, compiled by us, are attached with appropriate reports. We have also compiled the information in the report entitled "Balance Sheet and Adjustments to Liquidation Values," which is also attached.

Company Description

The company is a closely held single-site family restaurant and lounge with annual sales of nearly $1 million. The restaurant and building have been at the rural site for forty-five years. For many years, the company was the only full-service restaurant in the area.

Financial Situation

The current financial situation, indicated by the attached financial statements, is as follows:

1. Fine Family Foods, Inc's., current liabilities exceed current assets by $60,347.

2. The company is in default on a lease of computer equipment of $33,341, which is all due currently.

3. The company has a year-to-date loss of $5,766 after the gain on sale of restaurant equipment of $7,890. The last two years have been about break-even. Previously, the company had steady profits of about 6 percent of sales, consistent with industry standards for a restaurant of its size.

Reasons for Current Financial Position

The company's current financial distress is due to the following causes:

1. The company's building is deteriorating badly, and consequently, patronage is eroding. The company is in dispute with the landlord over needed improvements.

2. New competition is also eroding patronage.

3. The company was unable to install an automated cash register system, and the leasing company is threatening action to collect on default of the agreement.

4. Labor and food costs have risen above industry norms. The rise in food costs is due to the lack of timely revisions in menu pricing and to suppliers' placing the company on a higher pricing schedule because of slow payment.

5. Owners' salaries and entertainment costs are above the industry norms.

6. Fortunately, payroll and related labor costs have been kept below those of comparable sized restaurants.

Options Available for the Short Term

We recommend that Fine Family Foods, Inc., take the following actions immediately:

1. Negotiate with the landlord to renovate the building and possibly finance the renovation through increased rent.

2. Pursue legal remedies to deal with the leasing company regarding the cash registers.

3. Reprice menus and negotiate with suppliers for better terms. Give notes on old balances as a means of showing good faith.

4. Reduce officers' compensation and entertainment costs to reflect the current situation and industry norms.

Long-Term Recommendations

These short-term recommendations address only immediate problems. We believe a comprehensive long-term solution will require a formal approach to business planning. We would be pleased to assist you in preparing a long-range strategic plan.

Sincerely,

William Smith, CPA

Attachments

Attachment A

Fine Family Foods, Inc.
Statistical Controls Analysis (Ratio to Total Sales)

	Your Restaurant			*Median-Restaurants of*
	19X0	*19XX*	*U. S. Median*	*Similar Size*
Sales per square foot	$ 165	$ 166	N/A	$187
Sales per full-time equivalent employee	$39,760	$39,971	$37,959	N/A
Combined merchandise cost	35.00%	37.00%	34.50%	32.20%
Payroll and related labor cost	33.00%	33.00%	31.60%	39.90%
Combined payroll and merchandise cost	68.00%	70.00%	66.10%	72.10%
Advertising	1.10%	1.20%	1.90%	1.20%
Entertainment	3.00%	3.10%	.30%	.10%
Promotion (see advertising)	—	—	—	—
Depreciation	1.10%	1.10%	2.70%	3.00%
Rent, property taxes, and insurance (occupancy)	8.60%	9.00%	7.70%	6.80%
Utilities	3.00%	2.90%	3.20%	4.30%
Net income (loss) (before gain on equipment)	.05%	-1.40%	4.40%	2.60%

Sources: Laventhol & Horwath; William Smith, CPA

Attachment B

Fine Family Foods, Inc.
Key Financial Ratio Analysis

	19X0	*19XX*
Current ratio	.26	.35
Working capital	$-71,347	$-80,374
Gross profit	64.80%	62.70%
Net income (loss)	.05%	-.57%*
Debt to equity	6.70	10.00

* -1.40% after excluding gain on sale of equipment

Attachment C

Fine Family Foods, Inc.
Information Summary

	19X0	*19XX*
Number of seats	125	125
Square footage	6,024	6,024
Number of employees (FTE)	25	25

Exhibit 61B-2.1

Fine Family Foods, Inc.—Current Financial Information

William Smith and Associates
10 South Street
Anytown, USA 12345

January 31, 19XY

Mr. Thomas Jones
Fine Family Foods, Inc.
1 Main Street
Anytown, USA 12345

Dear Mr. Jones:

The accompanying balance sheets of Fine Family Foods, Inc., as of December 31, 19XO and 19XX, and the related statement of operations for the years then ended, have been compiled in accordance with standards established by the American Institute of Certified Public Accountants.

A compilation is limited to presenting, in the form of financial statements, information that is the representation of management. I have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them.

Management has elected to omit substantially all of the disclosures required by generally accepted accounting principles. If the omitted disclosures were included with the financial statements, they might influence the user's conclusions about the company's financial position. Accordingly, these financial statements are not designed for those who are not informed about such matters.

The accompanying financial statements have been prepared assuming that the company will continue as a going concern. The company's ability to continue is dependent upon successful negotiations with the company's creditors and lessor. This contingency raises substantial doubt about its ability to continue operations.

Sincerely,

William Smith, CPA

Fine Family Foods, Inc.
Balance Sheet
(See Accountant's Compilation Report)

Assets	December 31, 19X0	December 31, 19XX
Current assets		
Cash	$ 78	$ 7,968
Accounts receivable	6,291	6,325
Inventories	16,519	16,607
Prepaid expenses	2,200	2,215
Total current assets	25,088	33,115
Property and equipment	116,997	106,997
Less accumulated depreciation	80,897	88,603
Net property and equipment	36,100	18,394
Other assets		
Contract receivables—noncurrent	13,392	13,392
Goodwill—net	48,620	47,787
Total other assets	62,012	61,179
Total assets	$123,200	$112,688
Liabilities and Shareholder's Equity		
Current liabilities		
Trade accounts payable	$ 17,440	$ 17,767
Capital lease payable, current	33,341	33,341
Withholdings	6,050	6,504
Unemployment taxes payable	7,484	7,284
Industrial insurance payable	7,670	6,031
Sales tax payable	9,050	9,127
Accrued salaries	13,500	13,350
Other current liabilities	1,900	85
Total current liabilities	96,435	93,489
Capital lease, less current portion	10,807	9,007
Total liabilities	107,242	102,496
Common stock, 50,000 shares authorized; 50,000 shares issued and outstanding	$ 50,000	$ 50,000
Retained earnings	(9,547)	(9,042)
Current period income (loss)	505	(5,766)
Treasury stock—at cost (25,000 shares)	(25,000)	(25,000)
Total equity	15,958	10,192
Total liabilities and equity	$123,200	$112,688

Fine Family Foods, Inc.
Statement of Operations
Years Ended December 31,
(See Accountant's Compilation Report)

	19X0	19XX
Sales	$994,018	$999,276
Cost of sales	349,799	372,796
Gross profit	644,219	626,480
Expenses		
Wages	270,301	273,395
Payroll taxes	54,220	54,825
Employee benefits	3,300	3,350
Depreciation	11,101	10,596
Operating supplies	38,288	40,172
Utilities	29,372	29,452
Laundry	5,400	5,638
Repairs and maintenance	18,184	18,983
Advertising and promotion	11,470	11,975
Entertainment	29,399	30,691
Transportation	5,671	5,921
Administration	54,494	56,888
B & O tax	6,666	6,959
Occupancy costs	85,845	89,617
Other	1,603	1,674
Total	625,314	640,136
Operating income (loss)	18,905	(13,656)
Other income—sale of restaurant equipment	---	7,890
Net income (loss) before taxes	505	(5,766)
Income taxes	---	---
Net income (loss)	$ 19,410	($ 5,766)

Exhibit 61B-2.2

Fine Family Foods, Inc.
Balance Sheet and Adjustment to Liquidation Values

William Smith and Associates
10 South Street
Anytown, USA 12345

January 31, 19XY

Mr. Thomas Jones
Fine Family Foods, Inc.
1 Main Street
Anytown, USA 12345

Dear Mr. Jones:

I have compiled the accompanying balance sheet and adjustments to liquidation values for Fine Family Foods, Inc., as of December 31, 19XX, in accordance with standards established by the American Institute of Certified Public Accountants.

A compilation is limited to presenting in the form of financial statements information that is the representation of management (the owners). I have not audited or reviewed the accompanying balance sheet and, accordingly, do not express an opinion or any other form of assurance on it.

Management (the owners) have elected to omit substantially all of the disclosures required by generally accepted accounting principles. If the omitted disclosures were included with the balance sheet, they might influence the user's conclusions about the company's financial position. Accordingly, this balance sheet is not designed for those who are uninformed about such matters.

Sincerely,

William Smith, CPA

Fine Family Foods, Inc.
Balance Sheet and Adjustments to Liquidation Values
December 31, 19XY
(See Accountant's Compilation Report)

Assets

	*Key**	*Book Value*	*Adjustments*	*Liquidation Value*	*Secured & Priority*	
Current assets						
Cash	(a)	$ 7,968		$ 7,968		
Accounts receivable	(b)	6,325	(6,325)	0		
Inventories	(c)	16,607	(3,321)	13,286		
Prepaid expenses	(d)	2,215	(2,215)	0		
Property and equipment	(e)	106,997	(82,227)	24,770		
Less accumulated depreciation	(f)	(88,603)	88,603	0		
Other assets						
Contract receivable	(g)	13,392	(2,678)	10,714		
Goodwill—net	(h)	47,787	(47,787)	0		
		$112,688		$ 56,738	$56,738	
Liabilities						
Current liabilities						
Trade accounts payable	(i)	$ 17,767		$ 17,767		
Taxes payable	(j)	28,946		28,946	28,946	first
Withholdings	(k)	13,350		13,350	13,350	first
Other current liabilities	(l)	85		85	85	first
Long-term debt	(m)	42,348		42,348	9,007	secured
Net equity	(n)	10,192		10,192		
Totals		$112,688		$112,688		
Cost of Liquidation 15% of assets liquidated					8,511	
Available (short) for unsecured					($ 3,162)	

---

*Explanation:

(a) Cash liquidation at face value
(b) No liquidation value
(c) Inventories discounted for restocking of 20%
(d) No liquidation value
(e) Fixed assets appraised at approximately 30% of cost
(f) No liquidation value
(g) Private contract discounted 20% for forced sale
(h) No liquidation value
(i) Unsecured no priority
(j) Taxes payable—first priority
(k) Withholdings—first priority
(l) Garnishment—first priority
(m) Contract secured by contract receivable; lease payable property returned
(n) No liquidation value

Exhibit 61B-2.3

Fine Family Foods, Inc.
Forecasted Financial Statements

William Smith and Associates
10 South Street
Anytown, USA 12345

January 31, 19XY

Mr. Thomas Jones
Fine Family Foods, Inc.
1 Main Street
Anytown, USA 12345

We have compiled the accompanying forecasted balance sheet and income statement and supplemental income information of Fine Family Foods, Inc., for the twelve months ending December 31, 19XY, in accordance with standards established by the American Institute of Certified Public Accountants.

The accompanying forecast and this report were prepared for the Plan of Reorganization filed before the United States Bankruptcy Court for the aforementioned corporation and should not be relied on for any other purpose.

A compilation is limited to presenting, in the form of a forecast, information that is the representation of management and does not include evaluation of the support for the assumptions underlying the forecast. We have not examined the forecasts and, accordingly, do not express an opinion or any other form of assurance on the accompanying statements or assumptions. Furthermore, if the forecasted sales are realized, the actual results will probably differ from the forecasts and the difference may be material. We have no responsibility to update this report to account for events and circumstances occurring after the date of the report.

Sincerely,

William Smith, CPA

Fine Family Foods, Inc.
Forecasted Balance Sheet
December 31, 19XY
(See Accountant's Compilation Report)

Assets	
Current assets	
Cash	$ 21,140
Accounts receivable	7,500
Inventories	15,400
Prepaid expenses	2,000
Total current assets	46,040
Property and equipment	122,600
Less accumulated depreciation	95,800
Net property and equipment	26,800
Other assets	
Contract receivable—noncurrent	12,500
Goodwill—net	46,500
Total other assets	59,000
Total assets	$131,840
Liabilities and Shareholder's Equity	
Current liabilities	
Trade accounts payable	$ 5,200
Capital lease payable, current	33,000
Withholdings	4,500
Unemployment taxes payable	5,000
Industrial insurance payable	3,000
Sales tax payable	4,000
Accrued salaries	13,000
Other current liabilities	2,278
Total current liabilities	69,978
Capital leases, less current portion	23,500
Total liabilities	$ 93,478
Common stock, 50,000 shares authorized; 50,000 shares issued and outstanding	$ 50,000
Retained earnings	(14,808)
Current period income	28,170
Treasury stock—at cost (25,000 shares)	(25,000)
Total equity	38,362
Total liabilities and equity	$131,840

Fine Family Foods, Inc.
Forecasted Income Statement
and Cash Flows from Operations
For the Twelve Months Ending December 31, 19XY
(See Accountant's Compilation Report)

	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sales	$ 751,600	$48,400	$46,600	$56,100	$57,000	$64,300	$66,200	$85,700	$87,300	$74,000	$77,400	$43,000	$45,600
Cost of Sales	264,300	17,000	16,400	19,800	20,100	22,600	23,300	30,100	30,700	26,000	27,200	15,100	16,000
Gross Profit	487,300	31,400	30,200	36,300	36,900	41,700	42,900	55,600	56,600	48,000	50,200	27,900	29,600
Expenses													
Wages	192,100	12,300	11,900	14,300	14,600	16,400	16,900	21,800	22,700	18,900	19,700	11,000	11,600
Payroll taxes	38,900	2,500	2,400	2,900	3,000	3,300	3,400	4,500	4,500	3,800	4,000	2,200	2,400
Employee benefits	1,400	100	100	100	100	100	100	200	200	100	100	100	100
Depreciation	7,200	600	600	600	600	600	600	600	600	600	600	600	600
Operating supplies	24,800	1,600	1,500	1,900	1,900	2,100	2,200	2,800	2,900	2,400	2,600	1,400	1,500
Utilities	28,800	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Laundry	6,900	500	400	500	500	600	600	800	800	700	700	400	400
Repairs and maintenance	14,400	900	900	1,100	1,100	1,200	1,300	1,600	1,700	1,400	1,500	800	900
Advertising and promotion	15,900	1,000	1,000	1,200	1,200	1,300	1,400	1,800	1,900	1,500	1,700	900	1,000
Entertainment	7,800	500	500	600	600	600	700	900	900	800	800	400	500
Transportation	4,800	400	400	400	400	400	400	400	400	400	400	400	400
Administration	16,800	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400
B & O tax	3,130	200	190	230	240	270	280	360	360	310	320	180	190
Occupancy costs	60,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
	1,200	100	100	100	100	100	100	100	100	100	100	100	100
Total	424,130	29,500	28,790	32,730	33,140	35,770	36,780	44,660	45,860	39,810	41,320	27,280	28,490
Operating income	63,170	1,900	1,410	3,570	3,760	5,930	6,120	10,940	10,740	8,190	8,880	620	1,110
Officers' salary	30,000	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
Net income before tax	33,170	(600)	(1,090)	1,070	1,260	3,430	3,620	8,440	8,240	5,690	6,380	(1,880)	(1,390)
Income tax	5,000												5,000
Net income	28,170	(600)	(1,090)	1,070	1,260	3,430	3,620	8,440	8,240	5,690	6,380	(1,880)	(6,390)
Cumulative		(600)	(1,690)	(620)	640	4,070	7,690	16,130	24,370	30,060	36,440	34,560	28,170

Adjustments to cash													
• Depreciation	7,200	600	600	600	600	600	600	600	600	600	600	600	600
• Capital improvements	(15,600)	(1,300)	(1,300)	(1,300)	(1,300)	(1,300)	(1,300)	(1,300)	(1,300)	(1,300)	(1,300)	(1,300)	(1,300)
• Principal on debt	(6,600)	(550)	(550)	(550)	(550)	(550)	(550)	(550)	(550)	(550)	(550)	(550)	(550)
Cash from operations incl. (Dec.)	13,170	(1,850)	(2,340)	(180)	10	2,180	2,370	7,190	6,990	4,440	5,130	(3,130)	(7,640)
Beginning cash	$ 7,970												
Cumulative		$ 6,120	$ 3,780	$ 3,600	$ 3,610	$ 5,790	$ 8,160	$ 15,350	$ 22,340	$ 26,780	$ 31,910	$ 28,780	$ 21,140

See the accompanying summaries of significant forecast assumptions and accounting policies.

Notes to Forecasted Income Statement
December 31, 19XY
(See Accountants' Compilation Report)

Note 1 — Nature of Forecast

This financial forecast is management's estimate of the results of operations and significant changes in financial position for the forecast period assuming a certain level of forecasted sales is attained. Accordingly, the financial forecast reflects the assumptions that management believes are significant to the forecast as well as management's judgment of the conditions, based on present circumstances, and its course of action if the estimated sales levels are attained. However, even if these sales materialize, unexpected events and circumstances may cause material differences between the forecast and actual results. The forecast was prepared for the Plan of Reorganization filed before the United States Bankruptcy Court for the corporation described below.

Fine Family Foods, Inc., is a single-site family restaurant and cocktail lounge.

Note 2 — Revenue

Management has forecasted the expected sales based on the prior year's sales in the same month, except for November and December, which were based on 19XX months. Consideration has been given to the capacity of existing facilities. Sales are expected to decrease by approximately 25 percent due to competition.

Note 3 — Operating Expenses

Operating expenses and overhead were determined by management based on the company's prior year's expenses adjusted for known differences.

Note 4 — Provision for Extraordinary Maintenance

The company will require $1,250 per month for additional operating and capital expenditures to maintain adequate health standards.

Note 5 — Assumptions

The following assumptions were used in producing this forecast.

Variables

Cost of sales is forecast at 35 percent of gross sales.

November and December sales are based on the prior year's sales.

Expenses — As a Percentage of Gross Sales (except as Noted)

Wages	25.56%
Payroll taxes	5.20%
Employee benefits	0.20%
Depreciation	$ 600 per month
Operating supplies	3.30%
Utilities	$2,400 per month
Other direct operating	1.00%
Repairs and maintenance	2.00%
Advertising and promotion	2.00%
Entertainment	1.00%
Transportation	$ 400 per month
Administration	$1,400 per month
B & O tax	0.44%
Occupancy costs	$5,000
Other	0.10%

BIBLIOGRAPHY

Altman, E.I. *Handbook of Corporate Finance.* New York: John Wiley & Sons, Inc., 1986.

Behrenfeld, W.H., and Andrew R. Biebl. *The Accountant's Business Manual.* New York: AICPA, 1987.

Bernstein, S.B. *Collier Bankruptcy Compensation Guide.* New York: Matthew Bender, 1990.

Bibcault, D.B. *Corporate Turnaround.* New York: McGraw-Hill, 1982.

Brealy, R.A., and S.C. Myers. *Principles of Corporate Finance.* New York: McGraw-Hill, 1988.

DiNapoli, Dominic, Sanford C. Sigoloff, and Robert F. Cushman. *Workouts & Turnarounds, The Handbook of Restructuring and Investing in Distressed Companies.* Chicago: Business One Irwin, 1991.

Financial Research Associates. *Financial Studies of the Small Business, Database and Software Reference Manual.* Winter Haven, Fla.: Financial Research Associates, annual.

Finkin, Eugene F. *Successful Corporate Turnarounds.* New York: Praeger Publishers, 1988.

Frank, Peter B., Michael J. Wagner, and Roman L. Weill. *Litigation Services Handbook, The Role of the Accountant as Expert Witness.* New York: John Wiley & Sons, Inc., 1990.

Ginsberg, R.E. *Bankruptcy.* Englewood Cliffs, N.J.: Prentice-Hall, 1988.

Henderson, G.D., and S.J. Goldring. *Failing and Failed Businesses.* Chicago: Commerce Clearing House, 1987.

Herzog, A. *Herzog's Bankruptcy Forms and Practice.* New York: Clark Boardman, 1990.

Herzog, A., and L. King. *1990/1991 Bankruptcy Code.* New York: Matthew Bender, 1990.

Logue, D.E. *Handbook of Modern Finance.* Boston: Warren Gorham & Lamont, 1984.

Martin, R.D. *Bankruptcy: Annotated Forms.* Englewood Cliffs, N.J.: Simon & Schuster, 1989.

National Restaurant Association. *Financial Analysis of the Restaurant Industry.*

Newton, G.W. *Bankruptcy & Insolvency Accounting.* New York: John Wiley & Sons, Inc., 1989.

Newton, G.W. and G.D. Bloom. *Bankruptcy & Insolvency Taxation.* New York: John Wiley & Sons, Inc., 1991.

Rome, Donald Lee, *Business Workouts Manual.* New York: Warren, Gorham & Lamont, 1985.

Ruda, H. *Asset Based Financing*. New York: Matthew Bender, 1985.

Troy, Leo. *Almanac of Business and Industrial Financial Ratios*. Englewood Cliffs, N.J.: Prentice Hall, 1990.

Whitney, John O., *Taking Charge*. Homewood, Ill.: Dow Jones-Irwin, 1988.

62/100 IMPROVING PRODUCTIVITY THROUGH WORK MEASUREMENT

CONTENTS

62/100 IMPROVING PRODUCTIVITY THROUGH WORK MEASUREMENT

62/105 SCOPE OF THIS PRACTICE AID

.01 Work measurement is one way to improve productivity. It provides a quantitative system for evaluating existing productivity levels and for setting and achieving realistic new goals. This practice aid presents a general overview of how work measurement is used in setting productivity standards. It focuses on how practitioners and CPAs in industry, often with appropriate outside technical assistance, can help management improve productivity by establishing and monitoring productivity standards. Work measurement specialists often combine other productivity improvement techniques, such as establishing more effective systems and procedures, work flows, and organizational units, with work measurement techniques in productivity programs or engagements.

.02 The information in this practice aid will assist practitioners in evaluating client needs, identifying areas with great potential for improvement, and recommending the best methods for achieving maximum results. At times a client may request assistance in improving productivity. At other times a practitioner may, based on existing knowledge of the business's operations, bring productivity problems to the attention of client management and suggest a means of correcting them.

.03 This practice aid will also be useful for the practitioner whose client has already set productivity standards but requires assistance in evaluating results and determining corrective actions, as well as for the CPA in industry whose organization has, or is considering, a productivity improvement program.

62/110 TYPICAL ENGAGEMENTS

.01 Accurately assessing a client's need for improved productivity can be a key to providing important consulting services. Frequently, a client recognizes when improvement is desirable but needs help in defining specific requirements to achieve it. While every situation is unique, certain conditions, such as the following, can indicate the appropriateness of applying work measurement to improve productivity.

- *Variable workload.* A client with seasonal fluctuations in product demand (for example, a retail distributor) may wish to maintain a constant work force. By developing labor standards through work measurement, management can establish a production schedule for nonpeak periods that will meet its product demand.

- *High indirect labor cost.* In client organizations with voluminous paperwork or a decentralized organizational structure (for example, insurance claims processing or accounting departments), setting productivity standards through work measurement can help management assess opportunities for indirect labor cost reduction.

- *Limited performance measurement.* In many nonmanufacturing client businesses (for example, a graphic arts department or engineering department), the desired work output is neither well defined nor easy to measure. Individual or group performance is not linked to the production of the work unit. Work measurement can set standards for tasks performed instead of counting units produced.

- *Unregulated staffing changes.* In high-growth or highly profitable large corporations (for example, high technology businesses or defense contractors), staffing is based on a desire for organizational growth. Controls on hiring or funding limitations are not sufficient to regulate hiring, so people are employed on an "as needed" basis. Work measurement can establish when the volume of work requires additional personnel.

- *Unknown standard costs.* Entrepreneurial clients are often faced with setting prices and determining potential profits prior to production. This condition is common when a client is offering, or is planning to offer, a new product or service in an untested market. It also exists in many small companies with limited or no standard costing. In such cases, labor productivity standards can help determine standard costs of producing new items or services.

- *Perceived organizational or operational problems.* Cost overruns, excessive backlogs of work, and problems in meeting production goals or schedules may cause client management to be dissatisfied with the operation of a given department. Productivity standards help identify where an imbalance in personnel exists.

.02 There are many situations in which clients or practitioners will suspect that profitability or effectiveness problems may be caused by poor productivity levels. Establishing productivity standards using work measurement[1] may be an appropriate solution to a specific problem or an integral part of a wide-ranging program to improve overall operations. The practitioner may wish to contact an outside technical expert to confirm such a perception and to help identify specific work measurement techniques or other productivity improvement techniques that will best meet client needs.[2]

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[1] *Productivity standards* are benchmarks to which individual performance can be compared. *Work measurement* is the process of quantifying individual performance by establishing standard times for the completion of specific tasks.

[2] For additional information on cooperative consulting services engagements, see section 5/110, "Cooperative Engagements and Referrals."

62/115 ENGAGEMENT OBJECTIVES

.01 The overall objectives of a productivity improvement engagement, as discussed in this section, are to (*a*) upgrade operating systems, procedures, and methods, (*b*) develop and implement a systematic approach for managing resources, and (*c*) provide the capability to maintain and operate the production system efficiently. A work measurement system developed as part of a productivity improvement engagement gives managers and supervisors objective techniques and information to accomplish these goals. Such a system can help determine if a client's operating methods are effective, as well as what resources are required to achieve improved productivity and how, when, and where to allocate them. Systematic work measurement also helps identify a baseline performance. Management can use this baseline to determine current productivity levels and then establish individual, group, or organizational productivity goals. Improved productivity can reduce the unit cost of products or services.

.02 To help accomplish the overall objectives of a productivity improvement engagement, a practitioner might do the following:

- Determine if a work measurement program leading to productivity standards would be appropriate for a client.
- Develop recommendations to improve operating systems, procedures, and methods.
- Assist in implementing the recommendations, including a work measurement program, if appropriate.
- Develop the client's awareness and understanding of work measurement techniques through classroom training, on-the-job training, direct supervision, and technical assistance.
- With the assistance of technical experts, establish performance standards based on work measurement.
- Develop workload and staffing plans, based on performance standards.
- Develop and implement an ongoing management system for planning and budgeting, assigning and scheduling work, and monitoring and evaluating performance.
- Train client management in using performance standards information and techniques to achieve improved results.

62/120 ENGAGEMENT APPROACH

Understanding With the Client

.01 In order to have a successful productivity improvement engagement, both the practitioner and client need to clearly understand each other's expectations. Before the engagement begins, both parties need to define, agree on, and document these expectations. One important consideration will be agreeing on whether the services of a technical specialist are required. If so, this person's credentials need to be verified and the terms of employment established.

.02 Other areas to be considered include:

- Perceived problems
- Engagement objectives
- Engagement work plan
- Engagement scope
- Participation and responsibilities of the client, practitioner, and technical expert (if one is employed)
- Benefits
- Timing and fees
- Progress reporting
- Final reporting

These issues are usually stated in an engagement letter to the client. Exhibit 62B-1 provides an illustrative engagement letter, which includes a discussion on the use of a specialist and a work plan.

Evaluating the Client's Situation

.03 A practitioner often uses a survey of client productivity, typically a one- to two-day high-level review, as a benchmark for assessing a client's need for improved productivity. The survey, which is essential for determining the scope of the engagement, provides insight into the client's motivation for the program and its intended use. Exhibit 62B-3 is a sample checklist for collecting initial information on the client.

.04 After briefly reviewing the initial data, the practitioner can interview the client to determine the client's level of support, understanding of the work measurement concepts, expectations, commitment of personnel participating in program development, and beliefs about significant operational problems.

.05 Next, the practitioner visits the departments or units that appear to be good areas for initial observation and study. The practitioner may talk to the workers to hear their opinions on existing technical difficulties and to discuss the nature of their work. The practitioner may wish to chart the work flow. The practitioner will find that learning the business's jargon and organizational and operational terminology will promote client confidence and lend credibility to the engagement proposal and project initiation.

.06 The practitioner also needs to review any existing labor contracts the client has. If there are any changes to them, in areas such as work rules or procedures, they may require contacting labor unions.

Determining Management Information Requirements

.07 Evaluating the management information requirements for an engagement involving work measurement usually begins with a review of the current information flow. This activity identifies changes that may be needed to provide new information or reduce extraneous information. The practitioner initiates this review by studying the preliminary survey data and then expands on it by developing a greater understanding of client operations.

.08 A diagram of the current information flow can document the movement of information and the interfaces between the client organization units involved in the process. In addition to highlighting essential information flows in the organization, a graphic representation can usually be easily understood and allows for recognition of any extraneous information. The diagram may then be used to define the most effective level of management information detail required for operations and to establish an appropriate level of operations on which the work measurement system will focus.

Selecting the Engagement Staff

.09 **Client-Practitioner-Specialist Relationships.** The requirements of the engagement and the expertise of the practitioner will determine whether a technical work measurement specialist is needed. Assuming that the practitioner has no direct expertise in performing work measurement or productivity improvement studies, the primary day-to-day interface during the engagement is likely to occur between the specialist and client personnel.

.10 Most likely the practitioner will assist the client in selecting the work measurement specialist. Choosing a specialist is extremely important, since the practitioner is ultimately responsible for the quality of the engagement unless the client independently engages the specialist.[3] A useful source for locating specialists is the *Directory of Management Consultants* published by *Consultants' News* in Fitzwilliam, New Hampshire 03447. Following this selection, the practitioner and client establish the exact working relationships among the client, the technical specialist, and the practitioner.

.11 The data collection roles of the client, practitioner, and specialist vary, depending on the engagement structure. Typically, client personnel collect the raw data, while the practitioner or specialist summarizes that information and divides it into meaningful formats for the work measurement process. However, if the engagement involves direct work measurement, the specialist may collect the data. The roles of the practitioner and specialist in the final project review are essentially equal. The specialist prepares in-progress and final reports, while the practitioner is responsible for interpreting the results for the client.

.12 There are several important considerations in deciding whether the client or specialist should perform the primary tasks in developing performance standards. A major concern is the practitioner's assessment of the client's ability to perform these tasks. Clients lacking personnel skilled in work measurement or other analytical methods are usually better suited to using outside assistance. However, clients with industrial engineering, management analyst, or internal consulting personnel may find it appropriate to develop performance standards internally. The practitioner may also be able to assist the client in developing performance standards by supplying either an expert in work measurement (if there is one on staff) or staff personnel to function as work measurement analysts.

.13 A second consideration is the client's internal political situation. Client management may not be receptive to, or may perceive potential bias in, involving internal personnel in work measurement. Such clients might prefer using external consultants. During interviews with client management, the practitioner may inquire about internal political considerations and evaluate them in relation to the engagement.

.14 A third consideration is the cost of using an outside specialist. The practitioner evaluates the client's current financial position and relates it to the estimated cost of external assistance. If the client has financial concerns, the practitioner may suggest that the client look at a checklist (exhibit 62B-4 provides an example) and select only the key points that require examination. A comprehensive work measurement program may be too costly, whereas a study of certain specific areas will be more economical.

.15 **The Client's Role.** Few things are as critical to the project's success as the client's involvement and cooperation in the work measurement study. During a work measurement study, it is desirable for the client to provide—

- Decisions on issues that may arise.
- Historical data.

[3] See section 5/110, "Cooperative Engagements and Referrals." A practitioner may be the prime contractor for the engagement or one of several contractors who cooperate on the engagement but are responsible to the client.

- Access to all facilities and operations.

- Standard office support (work space, telephone, minor supplies).

- Availability of desired client personnel to serve full-time as study analysts for the engagement, if appropriate. (The availability of client personnel serving as study analysts will reduce engagement costs and develop a staff that can provide ongoing support following engagement completion.)

- Reviews of current standards and recommended changes in methods and procedures.

.16 **The Practitioner's Role.** Under most circumstances during an engagement, the practitioner interfaces between the client and the work measurement specialist. In addition, the practitioner performs a nontechnical quality review of the engagement outputs (for example, standards, reports, instructions) to ensure that engagement requirements have been met.

.17 The relationship between the practitioner and specialist varies, depending on the engagement. When acting, as a representative of the client, the practitioner may be the technical interface between the client and specialist or assume responsibility for project coordination and project control for the client. As technical interface, the practitioner reviews and interprets the specialist's results for reasonableness and, in some cases, applies those results to the client's business situation. When providing project coordination or project control, the practitioner observes the specialist's progress through interim reviews, ascertains that the project is progressing on schedule and on budget, and assists in the information exchange between client personnel and the specialist.

.18 The practitioner often assists in training client personnel to develop performance standards. Outside assistance may be used to educate the staff, especially if the staff will perform work measurement analysis involving various time study and methods improvement techniques. The training specialists must be experts in the particular work measurement system to be used, and they must also have experience in applying it to the type of work being measured.

.19 The practitioner may also recommend operational training, which focuses on continually educating client managers and supervisors in interpreting and applying the performance standards. This operational training is often critical for the long-term success of the productivity improvement program. People with this training can apply the standards on an ongoing basis long after the practitioner and specialist have left.

.20 **The Specialist's Role.** The technical specialist retains responsibility for developing a detailed work plan, selecting appropriate work measurement techniques, analyzing technical data, and preparing supporting documents. Since the type of assistance varies according to each technical specialist's areas of expertise, the client and practitioner need to carefully evaluate the experience and qualifications of outside specialists before hiring any. The client's needs and the type of work to be measured influence the selection of each specialist.

.21 One type of assistance, turnkey development and implementation, usually involves the proposed plan of the specialist. Proposals drawn up by specialists need to be evaluated with care because they are expensive to carry out and usually give the specialist tight control over standards development and program implementation.

.22 The second type of assistance involves a joint effort between the client or practitioner and the specialist. Client or practitioner personnel assume the role and function of analysts after some training, while the specialist oversees the results. When offering this type of assistance, outside specialists need to be knowledgeable about the type of work involved and the nature of the business.

.23 In the third type of assistance, the specialists train client or practitioner personnel in how to perform all the work measurement tasks. The specialists need to be available to assist client analysts and program supervisory personnel following the training. This availability is an evaluation criterion for selecting specialists.

62/125 ENGAGEMENT OUTPUTS

.01 Specific outputs, such as training manuals, performance standards, staffing guidelines, and productivity reports, will depend on the engagement objectives, methodology applied, and client needs.

Training Manuals

.02 Training manuals provide client analysts with instruction in the selection, performance, and interpretation of ongoing work measurement.

Productivity Reports

.03 The reports described in this section are intended to be an ongoing part of the organization's management process, reflecting accomplishments, problem areas requiring management action, and the effectiveness of the program in helping management to implement improvements. In interpreting these reports, management needs to be aware that accomplishing certain objectives is not wholly within the direct control of a particular group or even the overall organization. The actions of external organizations can influence the degree of effectiveness achieved.

.04 *Performance reports* are prepared for each group that is observed. The data for each group is progressively summarized for successively higher levels of management. Essentially, such reports describe the performance or efficiency of the measured employees in the group, compare budgeted personnel and actual personnel counts with their costs, and indicate productivity improvements that have been realized since the reference period.

.05 *Output/backlog reports* present workload and backlog data for each group studied. Clients refer to these reports to compare actual workload to forecasted workload and to monitor any backlogs. They also provide concise, historical records of monthly workload volume and are valuable in developing subsequent forecasts to use in determining required staffing levels.

.06 *Effectiveness measures reports* show the degree to which a group's objectives are being accomplished. The information is expressed in terms of effectiveness measures established for each group and overall measures established for the total organization.

.07 Effectiveness measures reports simply show results. They are not intended to become effectiveness standards (for example, 70 percent effectiveness is a current result, but 100 percent is possible). Once management has sufficient experience in interpreting and analyzing individual performance results, it can establish overall organization effectiveness standards, such as cost or man-hours per unit. Such standards reflect management's judgment about the levels of effectiveness considered most appropriate for the organization.

Revised Procedures

.08 The practitioner and specialist usually suggest revised procedures based on their analysis of current client procedures. Improving productivity through developing and implementing new procedures is a significant benefit of a work measurement program. If the specialist simply sets standards for obviously poor procedures, the procedures will become established and more difficult to change. Later changes will require developing new standards.

62/130 ENGAGEMENT IMPLEMENTATION

.01 Implementation begins after the client accepts the productivity improvement recommendation. This is the first point in the engagement at which the client begins to realize the benefits of work measurement. For example, to determine a staffing level to match the estimated workload, the workload can be multiplied by the standard time to complete the unit and divided by the available productive time per worker. This result, which is the number of man-hours required to complete the workload based on the standard time, is compared to the existing staff level. The current staff level can then be adjusted to the standard-based staff level.

.02 Work measurement also benefits production scheduling. Using accurate labor standards, the client can regulate flow rates and labor assignments based on the known time it takes to complete operations at given work centers. The resulting improved work flow reduces bottlenecks, improves throughput (the number of units completed in a given time), and allows for accurate estimation of completion dates.

.03 Every client has areas in its organization that can be improved by performance standards, and it is up to the practitioner to assist in identifying them. Capacity planning, product quality, customer service (timeliness and quality), and compensation problems can be addressed more successfully following the development of standards.

62/135 CLIENT BENEFITS

.01 Benefits from productivity improvement engagements can include the following:

- *Reduced labor costs.* The client can achieve optimum staffing levels by comparing existing work performance standards to known or forecasted workloads and then eliminating or reassigning unnecessary staff. This benefit is usually obvious shortly after program implementation.

- *Reduced unit costs.* A critical analysis of operations often indicates the need for improvements in procedures and activities, which will reduce unit costs by increasing output with existing resources or producing the same output with fewer resources.

- *Improved business and operations management.* The standards developed by work measurement provide management information that a client needs to accurately control and regulate the labor force, forecast production material requirements, and schedule delivery dates. These standards aid in identifying product and service costs, which simplifies pricing and profitability analysis. Thus, a client can better develop and justify budget requirements, as well as evaluate operating results and organizational effectiveness.

- *Improved employee relations.* Typically, employee morale rises because workers can evaluate their own productivity against known management expectations in the form of productivity standards.

62/140 POTENTIAL PROBLEMS

.01 Implementing a productivity improvement program using work measurement can have some drawbacks. Work measurement sometimes has a negative impact on employee morale because workers may think that management is interested only in speeding up production. To avoid this, management needs a well-structured program to gain employee acceptance of the work measurement methods and standards.

.02 Another pitfall is that some workers may not be able to meet performance standards, even though the standards are accurate. The solution may involve upgrading the quality and training of the work force or creating an incentive program to encourage workers to perform at top efficiency. Both the practitioner and client need to recognize that reducing or modifying the work force through employee termination is a sensitive issue.

.03 A third common problem following the implementation of a productivity improvement program may be a reduction in product quality. This sometimes results when workers believe management's primary concern is rapid production and product quality is secondary. This problem can resolve itself, however, as workers begin focusing attention on job requirements; soon product quality will increase.

.04 An additional potential pitfall may be a lack of follow-through by the client after the standards have been presented. To avoid this problem, line personnel and supervisors need to be involved in the standard-setting process so that they will likely support and encourage follow-through. Client staff may also believe that, once developed, the standards will automatically create smooth operations. They may not recognize the need to renew or update existing standards as methods or procedures change and products or services are added or deleted. Therefore, the practitioner may have to monitor the progress of initial client implementation and ongoing application of standards and methods developed in the productivity improvement program.

.05 A final problem may be a difference between client expectations and program results. The practitioner can cushion client disappointment by forecasting exact savings or improvements and keeping the client abreast of progress in meeting initial estimates during the productivity study.

62/145 ENGAGEMENT MONITORING AND FOLLOW-UP

Interpreting Key Performance Indicators

.01 Evaluating the success of a productivity improvement program requires monitoring performance indicators following implementation. Monitoring accomplishes the purpose of the engagement, which is to assist the client in establishing measures against which past, current, and future production performance can be compared.

.02 One method of monitoring results is to use a productivity index to compare actual performance to the benchmarks established through the standard-setting process. Often expressed as a percentage, a productivity index can indicate the level of success the program is achieving during any period following implementation. A second method involves comparing total production before and after implementation of the productivity improvement program. A third method focuses on evaluating standard costs derived from client accounting information. When compared to pre-implementation costs, standard costs per production unit for direct labor and material (especially scrap costs) can generally indicate whether the program is having the desired effect on costs.

Evaluating the Overall Program

.03 A practitioner can evaluate a productivity improvement program by using measures similar to those used to capture information on client accounting systems. These indicators may include changes in total operating costs, total production, or total profits. Using these measures requires the practitioner to verify whether savings resulted directly from the productivity improvement program.

Updating Performance Standards

.04 Using outdated performance standards may be harmful to client operations. At a minimum, performance standards need to be updated annually, at which time the practitioner determines if the methods and products are substantially the same as when the performance standards were developed. If the client introduces new production methods or new products, such changes may require reevaluation of existing standards or development of new standards.

APPENDIX 62/A

WORK MEASUREMENT TECHNIQUES

Work measurement techniques were originally designed as manual systems and have a proven record of success in a wide variety of applications. However, computer technology has improved upon these systems by increasing information processing speed, reducing overall costs (through the use of microcomputers), and expanding the possibilities for sensitivity (what-if) analysis.

Establishing a client's current level of productivity is the first step in developing an overall program to improve productivity. Current productivity may be assessed by analysts who apply work measurement techniques. The practitioner may also be able to detect low productivity through a financial analysis revealing labor costs that appear excessive for the industry or for the number of units produced. Regardless of the method used, a benchmark level of current productivity provides a basis of comparison when determining whether changes in staffing levels resulting from work measurement are effective in reducing costs and improving productivity.

A broad spectrum of work measurement techniques exists. At one end of this spectrum are techniques for the well-defined, highly repetitive kind of job, such as data entry. At the other end are methods for the vaguely defined, long-cycle job often involving less motion and more mental effort, such as computer programming, budget analysis, or engineering. Clerical operations often fall into the broad middle area. An individual who has applied various work measurement techniques is the most qualified to select those appropriate for a specific situation or environment. The technique or techniques selected depend on functions being studied, number of people, time constraints, budget constraints, and objectives of study. Exhibit 62A-1 relates the suitability of various work measurement techniques to the jobs being studied. Following are several work measurement techniques and the advantages and disadvantages of each.

Micromotion Study

The micromotion study technique uses a movie or video camera to record, in great detail, the motions of a highly repetitive job performed at a fixed location. By using a timing device in conjunction with the film, the analyst has a permanent record of what the job entails and how long it takes. The micromotion study has some drawbacks, however, including its high cost and, at times, adverse effect on employee morale. In addition, the study is normally reserved for high-volume or production situations, such as an assembly line station.

Predetermined Time Systems

Four widely used predetermined time systems are the Maynard Operation Sequence Technique (MOST), Methods-Time Measurement (MTM), Master Clerical Data (MCD), and Basic Motion Time study.

This method uses tables containing standard times for performing specific manual motions. The work measurement analyst uses the times either directly or in the form of a sum of time values for larger groups of motions. In the past, predetermined time systems have been widely applied to factory production in which operations are both repetitive and physical. However, they are now being used to measure short-cycle, repetitive office and clerical operations that do not involve a great deal of machine time.

Although this technique can be time-consuming and costly, it has many advantages, including accurate and detailed results, minimal interruption of an employee's work routine, and consistency in application.

Time Study

In a time study, the work measurement analyst continuously observes a worker or workers and records, in detail—

- A description of each step of the job.
- The time it takes to perform each step.
- The work pace.

A timing device determines elapsed time (that is, the time from start to finish). Once the information is documented, the analyst develops a time standard for each activity based on how long it takes to complete all the steps in the process.

Time study is particularly applicable to relatively short-cycle, moderate-volume activities in which there are few employees per activity. Time study has the following advantages:

- Supervisors tend to place confidence in programs that are established for their own employees performing in their usual work areas.
- Time standards are based on the operating conditions actually in effect. The analyst observes complete, continuous cycles of production.
- Method improvement ideas usually result since the analyst has specific, firsthand knowledge of how each job is performed.
- Because of clearly defined details of the steps performed, standards can be more easily adjusted as methods or procedures change in the future.

The major disadvantage of time study is its costliness, because it is a slower process than any of the other techniques discussed in the paragraphs that follow.

Work Sampling

In work sampling, the analyst makes a large number of instantaneous, random observations to record the activity of a person or a machine. This technique is commonly used to determine busy or idle times, allowances for such things as telephone interruptions for groups of people, and the frequency of each step in a procedure.

In certain applications, work sampling can also be used to establish time standards. For example, an analyst can make a large number of instantaneous observations of the work of a person or a group of people. By comparing the percentage of observations of a certain activity to the total observations made, the analyst can determine, with predictable accuracy, the percentage of time actually spent on that activity. To establish a standard time for each activity, the analyst then relates the output count (units produced) to the time spent on each activity. This establishes a standard time per activity per unit produced.

The following characteristics are common in activities to which work sampling is applicable:

- Large groups of people working in the same general area, so that they may be observed simultaneously
- Long activity cycles[4]
- Work procedures that cannot be specifically defined or that are subject to regular, frequent changes
- Work that involves the combined efforts of a group or team

There are several disadvantages to the work sampling technique. Although it is considerably less expensive to implement than a time study, it sometimes requires long observation, especially when the analyst has to observe many job activities. There is also little opportunity for methods improvements during the actual sampling period. The standards derived are difficult to revise as methods or procedures change; in fact, revising the standards generally requires a complete restudy of the work in question.

Multiminute Measurement

Also known as predetermined interval sampling, multiminute measurement (MMM) is a blend of work sampling and time study. The analyst uses this technique to observe two or more employees during the same time period. As in work sampling, the theory of instantaneous observation is applied, but the observations take place at planned intervals, rather than at random. The observations are more frequent than in work sampling, ranging from one-quarter of a minute to five minutes apart. MMM is similar to continuous time study because it uses long, uninterrupted periods of observation.

The major advantage of MMM in comparison to work sampling is that the analyst can identify and monitor nonproductive time and can adjust productive time more accurately to consider individual variances. In comparison to time study, MMM has the following advantages:

- Less analyst time is required to develop standards. It is ideal for "crew" work, since several employees performing different, but interrelated, activities can be studied simultaneously.
- There is usually less adverse employee reaction.

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[4] A *long cycle* is defined as a large block of time required to complete an activity.

- It becomes more advantageous as the overall cycle time of the activities increases.

On the other hand, MMM does not provide detailed step breakdowns, as a time study does, nor is it as accurate in measuring short-cycle operations.

Extended Cycle Analysis

Extended cycle analysis (ECA) requires professional and technical employees to report the time they actually spend on various activities. Jobs measured by this technique usually have very long cycles and high variability. The analyst defines work activities prior to data collection and breaks down overall projects or functions into limited and more uniform blocks of work. The analyst then collects the reported time data, along with output data about the work accomplished, over a period of time sufficient to obtain a statistically reliable sample of both the work content and the time expended.

The analyst uses work sampling techniques in conjunction with employee time reporting to adjust, or *pace-rate,* reported time and to identify nonproductive time. *Raw,* or actually reported, time is then adjusted by these observations to obtain *true* productive time. The analyst divides total productive time for each activity by the number of output units completed to establish a time per unit.

The activity time standards developed with ECA can provide reasonable estimates of the overall times required to complete projects or functions which, in terms of their typical definitions, may take weeks, months, or even years. However, these standards will not be as detailed or accurate as those determined by time study or MMM.

Engineering Operations Analysis

Originally developed to establish standards for engineers, programmers, and technicians in the aerospace industry, engineering operations analysis (EOA) is also used by highway design engineers, architects, and similar professionals. This technique measures activities that typically have long cycles and high variability and that involve considerable mental effort and judgment. The final product of these activities is usually a physical item that can be described by a number of independent forecastable variables, such as project cost, length, weight, and number of major components.

EOA is very similar to ECA. The major exception is that EOA is applied to work activities in which time does not vary in direct relationship to a single output variable (production unit). Instead, the relationship between the time required to complete an activity is most properly expressed as a function of several variables by means of a regression formula — for example, $a + bx + cy + \dots$.

Rated Actual Time

Relying mainly on individually maintained employee records of how time is spent and work units produced, the rated actual time technique is usually used to measure short-cycle, less variable operations. The analyst collects time and production data over several weeks or months and records them on time survey or time ladder forms. After completing data collection, the analyst divides the total time by the total units to find an average time per unit and then adjusts actual reported time based on the random pace ratings, or leveling observations, made during the data collection period.

Rated actual time is used when a direct observation technique, such as time study or MMM, would be applicable except that a program constraint exists, for example, lack of sufficient analyst manpower. However, these standards tend to be less accurate than standards developed through direct observation, contain no step details, and can be revised only by complete restudy of the work in question.

Exhibit 62 A-1

Job Characteristics Spectrum

The closer the technique is to the characteristic, the more appropriate it is.

	←			→
Job Characteristics	Well-defined, Highly repetitive			Vaguely defined, Long cycle
Work Measurement Techniques	Predetermined time systems	Time study	Work sampling	Engineering operations analysis
				Extended cycle analysis
	Micromotion	Multiminute measurement		Rated actual time

Exhibit 62A-2

Costs of Techniques

Although it is difficult to make generalizations about internal and external costs, certain trends are typical. These estimates assume the extensive use of client work measurement analysts and will vary by engagement. Factors influencing the cost for a given technique include the size of the organization under study, technical capabilities of client personnel, the desired level of detail or accuracy expected from the study, and the current level of client productivity.

Technique	*External Cost*	*Client Involvement (Internal Cost)*
Micromotion study	High	High
Predetermined time systems	High	Moderate
Time study	High	High
Work sampling	Moderate	Moderate
Multiminute measurement (MMM)	Moderate	Low
Extended cycle analysis (ECA)	Low	High
Engineering operations analysis (EOA)	Low	High
Rated actual time	Low	High

Exhibit 62 A-3

Comparison of Techniques

Comparison Category	*Micromotion*	*Predetermined Time Values*	*Time Study*	*Multiminute Measurement*	*Work Sampling*	*Professional Measurement — Extended Cycle Analysis, Engineering Operations Analysis*
Typical area of application	Highly repetitive, e.g., assembly operation in fixed areas	Highly repetitive, e.g., assembly operations	Clerical and variable factory operations	Clerical pools or operations within limited area	Varied activities within group distinguishable through observation	Long cycle with high degree of mental activity
Generally possible for application to individual employees?	Yes	Yes	Yes	Maybe	No	No
Time required to collect and analyze data	Long	Long	Medium	Short	Long	Long
Interruption of employee's work routine	Close observation under laboratory conditions	Little	Little	None	None	Employee self-reporting
Provides detailed standards?	Yes	Yes	Yes	Some	No	No
Consistency	High	High	Good	Good	Good	Fair
Requires leveling for work pace?	Yes	No	Yes	Yes	Yes	Yes
Requires additions for personal allowances?	Yes	Yes	Yes	Yes	Yes	Yes
Employee reaction	Overcome reaction to camera	Reaction to close observation by analyst	Some fear of stop-watch	Good	Good, except mathematics must be explained	Some concern with reporting requirements

APPENDIX 62/B

ILLUSTRATIVE MATERIALS

Exhibit 62B-1

Sample Engagement Letter

CPA & Company
Anytown, USA

Mr. George Jackson
Hickory Manufacturing
Anytown, USA 99999

May 14, 19XX

Dear Mr. Jackson:

This letter confirms our agreement to assist Hickory Manufacturing in improving operating procedures and methods and in determining staffing levels in the production department. Our firm will work with a technical specialist [engaged by you] [engaged by us][5] to provide on-site work measurement. (See the staffing section of this letter.)

Objectives

1. Develop recommendations for improvements in operating systems, procedures, and methods.

2. Train internal analysts at Hickory Manufacturing in work measurement techniques.

3. Train managers and supervisors in the application of work measurement information and techniques.

4. Establish work standards, staffing guidelines, and effectiveness measures.

5. Develop a simple monthly reporting system to track standard versus actual staffing and to record effectiveness measurement statistics.

The objectives outlined above will be accomplished by performing the following tasks:

1. Train the two Hickory Manufacturing analysts selected to assist with the study.

2. Conduct orientation sessions for both management and employees.

3. Review production department methods and procedures with appropriate supervisors and employees. Current documentation will be revised and updated as necessary.

[5] The practitioner chooses the option that is appropriate for the particular engagement.

4. Develop and assist with the implementation of methods and procedures improvements. We will give specific attention to improvements that can be implemented immediately at low or no cost prior to work measurement.

5. Conduct work sampling observations and develop recommended staffing levels.

6. Develop effectiveness measures and supervisory reporting procedures.

7. Train managers in the uses of the staffing and effectiveness measurement data.

Scheduling

We have attached a preliminary work plan outlining the project approach in more detail. We estimate that this project can be completed in approximately eight weeks. This schedule depends on timely Hickory Manufacturing participation, including full-time assistance from two Hickory Manufacturing internal analysts for six weeks. We will also need assistance from the production department management and staff for interviews and review meetings.

Staffing

John Doe will serve as the project director and will have overall responsibility for this project. Bob Jones will be the on-site project manager responsible for day-to-day project operation. Jane Williams and Dan Johnson, consultants from our local office, will assist him. Sam Smith and Tom Clark have overall responsibility for our services to your company. We [you] have retained the services of Joe Black of Work Measurement, Inc., to provide work measurement technical advice and assistance for this engagement.

Reporting

A weekly progress report will be issued to inform you of project progress and status. Furthermore, we intend to review this report with production department managers in a weekly progress meeting.

Fees

We estimate our fees and expenses at $XX,XXX for this project. We base our fees on the time our consultants actually spend working on an engagement at standard hourly rates according to their experience. We bill expenses at actual cost. Should our participation be less than we have estimated, we will bill you only for the time worked and expenses incurred. Should you desire to expand the scope of our assistance beyond that planned, we will provide you with an estimate of our additional fees and expenses and secure your approval prior to proceeding. We will bill you monthly for actual fees and expenses incurred.

Sincerely,

Joe Barnes, CPA

Exhibit 62 B-2

Work Plan

Client
Location

Engagement Supervisor
Personnel
Nature of Work
Client Personnel

	Assigned to	Week 1					Week 2					Week 3					Week 4					Week 5					Week 6					Comments
		M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F	
Task 1 — Project Initiation																																
1.1 Review work plan and revise if necessary																																
1.2 Select client analysts																																
1.3 Prepare analyst training course																																
1.4 Conduct analyst training																																
1.5 Conduct management orientation session																																
1.6 Conduct employee orientation sessions																																
Task 2 — Operations Review																																
2.1 Gather basic organization and legal information																																
2.2 Conduct interviews with supervisors and selected employees																																
2.3 Develop description of operations and work distribution																																
2.4 Review existing flowcharts and update as necessary																																
2.5 Develop activity lists																																
2.6 Identify workload indicators																																
2.7 Obtain concurrence and approval																																
Task 3 — Methods Improvement																																
3.1 Analyze the activities																																
• Work elements																																
• Method and flow of work																																
• Distribution of work																																
• Skill utilization																																
• Quality requirements																																
• Forms																																
• Layout																																
• Files and records																																
3.2 Develop improved methods																																
3.3 Obtain concurrence and approval																																

(continued)

Exhibit 62 B-2

Work Plan *(continued)*

	Assigned to	Week 1					Week 2					Week 3					Week 4					Week 5					Week 6					Comments
Task 4 — Work Sampling		M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F	
4.1 Identify and define sampling categories																																
4.2 Establish a production unit count system																																
4.3 Determine required number of work																																
sampling observations																																
4.4 Establish sampling schedule																																
4.5 Prepare observation and summary forms																																
4.6 Conduct analyst briefing																																
4.7 Perform work sampling observations																																
4.8 Validate accuracy of sample																																
4.9 Summarize results																																
Task 5 — Staffing Guidelines																																
5.1 Calculate earned hours per production unit																																
5.2 Develop staffing allowances:																																
• Defined station employees																																
• Vacation, sick leave, holidays																																
• Nonmeasured time																																
5.3 Determine standard hours for each work center																																
5.4 Develop recommended staffing levels																																
5.5 Obtain concurrence and approval																																
5.6 Implement recommended staffing levels																																

	Assigned to	Week 1					Week 2					Week 3					Week 4					Week 5					Week 6					Comments
Task 6 — Reporting System		M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F	
6.1 Identify effectiveness measures																																
6.2 Develop simple monthly report for output,																																
earned vs. actual staffing, and effectiveness																																
measures																																
6.3 Obtain concurrence and approval																																
6.4 Implement reporting system																																
Task 7 — Project Reporting																																
7.1 Prepare interim status reports																																
7.2 Prepare final report																																
7.3 Review final report with client management:																																
• Flowcharts																																
• Methods improvements																																
• Staffing levels																																
• Reporting system																																

Exhibit 62 B-3

Client Condition Data Collection Checklist

Organization		Analyst(s)	
Group			
Item	Responsibility	Date Planned	Date Completed
Organization charter (functions and responsibilities)			
Organization charts			
Pertinent laws, rules, and regulations			
Organization policies and procedures			
Personnel name and classification list			
Area layouts			
Interviews/Questionnaires—supervisors			
Interviews/Questionnaires—employees			
Samples of forms used			
Equipment used			
Filing systems			
Existing data reporting			
Job logs			
Workload volume indicators			
Work backlog			
Previous system studies			
Existing work standards			
Work assignment systems			
Cost and management reports			
Review of data with group supervisor			

Exhibit 62B-4

External Specialist Proposal Evaluation Checklist

	Yes	*No*	*Not Applicable*
Understanding of the Problem/Need			
• Demonstrates understanding of client business	______	______	______
• Discusses causes/effects	______	______	______
• Has included background information	______	______	______
• Has clearly described the nature and severity of the situation	______	______	______
Project Objectives/Benefits			
• States long-range objective/impact on client business	______	______	______
• Explicitly describes anticipated results	______	______	______
• Relates to specialist's understanding of the problem	______	______	______
• Cites expected tangible outputs	______	______	______
• States benefits, including expected intangible benefits	______	______	______
Technical Approach			
• Details task plan	______	______	______
• Details task descriptions	______	______	______
• Describes key factors influencing tasks in the introduction	______	______	______
• Describes task interrelationships/dependencies	______	______	______
• Discusses skill requirements	______	______	______
• Defines progress reporting	______	______	______

	Yes	*No*	*Not Applicable*
Project Scope			
• Clearly states limitations	______	______	______
• Discusses related impact on approach	______	______	______
• Gives alternatives for client evaluation	______	______	______
Project Personnel			
• Sets project organization and responsibilities	______	______	______
• Describes client personnel/skills anticipated	______	______	______
• Sets consultant/client participation by task	______	______	______
• Discusses impact of personnel changes	______	______	______
• Establishes availability/commitment of personnel	______	______	______
Firm Qualifications			
• States related firm experience	______	______	______
• Gives previous client references	______	______	______
• Includes resumes of specialists	______	______	______
• Includes descriptive previous engagement summaries	______	______	______
Timing and Fees			
• States professional fees	______	______	______
• States estimated expenses	______	______	______
• States assumptions impacting fee estimates	______	______	______
• States alternative fees for varying assistance	______	______	______
• States project duration	______	______	______

BIBLIOGRAPHY

Duncan, A. J. *Quality Control and Industrial Statistics.* Homewood, Ill.: Irwin, 1986.

Duncan, J. H., J. H. Quick, and J. A. Malcolm. *Work Factor Time Standards.* New York: McGraw-Hill, 1962.

Gregerman, I. B. *Productivity Improvement; A Guide for Small Businesses.* New York: Van Nostrand Reinhold, 1984.

Herzberg, F. *The Motivation to Work.* New York: John Wiley & Sons, 1959.

Hutchinson, R. D. *New Horizons in Human Factors.* New York: McGraw-Hill, 1981.

Karger, D. W., and F. W. Bayha. *Engineered Work Measurement.* New York: Industrial Press, 1986.

Krick, E. *Methods Engineering.* New York: John Wiley & Sons, 1962.

Maynard, H. B. (ed.) *I E Handbook.* New York: McGraw-Hill, 1971.

Maynard, H. B., J. L. Schwab, and G. J. Stegemerten. *Methods Time Measurement.* New York: McGraw-Hill, 1948.

Mundel, M. *Motion and Timestudy.* Englewood Cliffs, N.J.: Prentice-Hall, 1978.

Neibel, B. *Motion and Timestudy.* Homewood, Ill.: Irwin, 1976.

Swanson, R. A. *Performance at Work: A Systematic Program for Analyzing Work.* New York: John Wiley & Sons, 1986.

63/100 EFFECTIVE INVENTORY MANAGEMENT FOR SMALL MANUFACTURERS

CONTENTS

63/100 EFFECTIVE INVENTORY MANAGEMENT FOR SMALL MANUFACTURERS

63/105 INTRODUCTION

.01 Many small business owners do not maintain satisfactory inventory policies, methods, or controls as their businesses develop. Informal methods of accounting for goods and services that were appropriate in the past may have become ineffective. Therefore, a practitioner may be requested to provide advice or technical assistance for a client's inventory control and management procedures and for activities relating to purchasing, receiving, manufacturing, and production.

.02 By serving as an important buffer, inventory policies and procedures allow the manufacturer to balance the timing of customer demand (or shipping schedules) with production schedules and supplier deliveries. Without this buffer the client cannot operate competitively because inventories are necessary for all manufacturing operations to function efficiently.

.03 Maintaining appropriate levels of inventory will allow a client's business to acquire, produce, and deliver its products more economically, but such maintenance has associated costs. Those costs include storage space, interest cost of the inventory investment, obsolescence, loss by theft or error, security, handling, and insurance. Balancing the efficiency of always having goods on hand with the cost of carrying these goods is an important goal of proper inventory management.

.04 Clients consider inventory acquisition important because it is often the largest use of working capital and significantly impacts the current and future operations of businesses. The practitioner should, therefore, be aware of the characteristics of efficient inventory control presented in this practice aid. The practitioner should also have a thorough understanding of the client's business and industry practices in order to make appropriate recommendations.

63/110 SCOPE OF THIS PRACTICE AID

.01 The purpose of this practice aid is to assist the practitioner in helping a manufacturing client improve inventory management. The practitioner may find the illustrative accounting and physical controls matrixes provided in appendix 63/B particularly useful in identifying specific problems and suggesting possible solutions.

.02 All the steps discussed in this practice aid need not be performed in every case since a practitioner will have a varying degree of previous knowledge about each client who requests services. In addition, clients may desire varying levels of practitioner participation in identifying and solving inventory problems, ranging from an engagement to perform a study to a consultation to discuss what the client's staff has discovered.[1]

.03 A consulting services practitioner would not assume the role of management by authorizing the implementation of any suggested changes. Assumption of such responsibility might impair the independence necessary for other accounting and auditing services rendered to the client.

63/115 ENGAGEMENT APPROACH

.01 The steps in an engagement to assist a client in improving inventory policies and procedures may be organized as follows:

a. Accepting the client

b. Performing a preliminary survey

c. Reaching an engagement understanding

d. Conducting the engagement

.02 The well-planned engagement is divided into logical work phases, which provide the practitioner with a mechanism for billing portions of the engagement as it progresses, rather than billing at completion. The assignment of personnel as well as budgeted or anticipated time would be phased, too, to facilitate continuous review. Engagement planning would also include report or product processing time.[2]

.03 The time required to complete each step of such a consulting services engagement may vary, depending on the circumstances in the engagement, such as prior client contact. A brief discussion of each step of the engagement follows.

Accepting the Client

.04 In determining whether to undertake an engagement, the practitioner reviews the circumstances of a prospective client's request. In initial discussions with the client, the practitioner might seek to learn pertinent information by asking the following questions:

- Who referred the prospective client?

[1] Consultations and other types of consulting services are defined in the Statement on Standards for Consulting Services (SSCS) No. 1, *Definitions and Standards* (New York: AICPA, 1991).

[2] For additional guidance on the matters discussed in this section, see sections 3/100, "The Consulting Process," and 4/100, "Consulting Services Control and Management."

- Has the prospective client previously engaged an accountant, and if so, why is a new one being sought?
- Is the prospective client seeking to establish a continuing relationship with the practitioner or asking for one-time-only assistance?
- How long has the client been in business?
- Who are the owners/partners?
- What is the nature of the client's current business?
- What is the financial history of the current business?
- Does the management team have the experience or education to make the business a successful one?
- Were there any earlier business ventures, and, if so, what were the results?
- With whom does the client bank?
- What law firm does the client use?

.05 In deciding whether to accept the engagement, the practitioner is guided by the following additional considerations:

- Would acceptance of the client be in keeping with professional standards and with the practitioner's or the CPA firm's policies?
- Does it appear that the practitioner will be able to assist the client?

Performing a Preliminary Survey

.06 In some instances, the practitioner may be requested to submit a proposal explaining the services to be provided, the approach to be taken in performing the services, and the associated costs. A preliminary survey provides such data for the proposal or other form of understanding with the client.

.07 The time devoted to a preliminary survey may be less for an existing client because of the practitioner's knowledge of the client's operations, personnel, and other key factors. The client's desired results constitute the critical factor in all services rendered.

.08 During the preliminary survey, the practitioner gathers appropriate information about such areas as the following, that might affect the client's inventory problems as well as any other data that might facilitate a better initial understanding of client operations.

- Organizational structure
- Physical facilities
- Capabilities of management and key personnel
- Current accounting information system and paperwork flow
- Records detailing transactions with related parties
- Market strategies
- Product characteristics and production processes

.09 The practitioner bases the engagement approach on the information obtained. The engagement work program, an important result of planning, addresses the who, how, and when for successful engagement completion.

Reaching an Engagement Understanding

.10 Assuming the practitioner agrees to assist the client in improving inventory control procedures, the next step is to reach an understanding with the client about the services to be performed, including the objectives, scope, and conduct of the engagement.[3]

.11 The practitioner would communicate to the client, orally or in writing, a description of the services, the manner in which they will be rendered, and their cost. The practitioner might include the following in the engagement understanding:

- A description of the request for services and the preliminary survey
- Identification of the client's need for service
- Benefits the client anticipates from the proposed service
- Scope of services to be provided (usually a phase-by-phase outline of how the services will be rendered, client personnel who will be involved, feedback to the client's engagement responsibilities)
- Identification of a client liaison (from management) for the engagement
- Cost of services, including manner of billing and expected payments

[3] See the SSCS regarding the understanding with the client.

- The product to be delivered to the client

Conducting the Engagement

.12 An engagement to assist in improving inventory control procedures usually involves the following four phases:

a. Fact-finding

b. Diagnosis of problems

c. Formulation of recommendations

d. Final report

.13 **Fact-finding.** To identify a client's inventory management problems, the practitioner assesses the client's current operations. The practitioner would survey the people who work with, manage, and need information about inventories, using questionnaires, checklists, interviews, and observation. The appropriate survey techniques will depend on the size and organization of the client's business. The practitioner also reviews financial and management information to determine key inventory indicators (that is, inventory ratios, levels, and turns). Based on initial fact-finding, the practitioner can begin identifying problems.

.14 **Diagnosis of Problems.** Diagnosing weaknesses and deficiencies in an inventory control system can be complex. A wide variety of inventory-related problems, which may manifest themselves in many different ways, can have an impact on the client's business. Appendix 63/A, "Characteristics of Effective Inventory Management," provides the practitioner with a summary of key elements that may be lacking in the client's system, but it is not intended to be all-inclusive.

.15 To further assist the practitioner in diagnosing inventory management problems, two illustrative matrixes have been provided in appendix 63/B. One matrix addresses accounting controls and the other, physical controls.

.16 **Formulation of Recommendations.** After reviewing the pertinent facts and diagnosing the problems, the practitioner can formulate recommendations to solve the problems. These recommendations would be developed in conjunction with the client liaison who worked with the practitioner during the earlier phases of the engagement. The recommendations would reflect the findings.

.17 **Final Report.** The product of an engagement to improve a client's inventory management will be an oral or written report summarizing the practitioner's findings and recommendations. The report also addresses implementation of the various recommendations.

APPENDIX 63/A

CHARACTERISTICS OF EFFECTIVE INVENTORY MANAGEMENT

Solutions to many inventory problems are related to six key areas of effective inventory management:

A. Purchase order control (See paragraphs 1-11.)

B. Materials control (See paragraphs 12-20.)

C. Security (See paragraphs 21-25.)

D. Production reporting (See paragraphs 26-32.)

E. Inventory cost control (See paragraphs 33-41.)

F. General controls (See paragraphs 42-49.)

A. Purchase Order Control

1. Purchase order control provides for replenishing stock and supplies on a centralized procurement basis. It includes economic order quantity (EOQ) techniques, whenever possible, to minimize the costs of purchasing and storing inventory. Sufficient material requirements planning (MRP) is performed to provide proper scheduling of purchases and receipt of goods. A smooth and efficient flow of production is maintained to reduce the possibility of excessive inventory buildup, which would unnecessarily drain organizational resources. Effective purchase order control includes the characteristics described in the following paragraphs.

2. *Sufficient centralization to ensure that purchase orders for single items are not duplicated.* Assigning responsibility for purchasing to one buyer or purchasing agent supports greater management control over purchasing and inventory stock levels. This can reduce inventory write-offs associated with overpurchases and inventory stock-outs. Centralization of purchasing contributes to timely and effective utilization of inventory information.

3. *Use of standing purchase orders, if appropriate, when price or quantity discounts can be taken.* Issuing standing purchase orders in conjunction with available price or volume discounts can provide greater opportunities for reducing the cost of inventory and supplies. Additionally, the increased use of standing purchase orders reduces costs associated with carrying excessive stock when inventory is not purchased on a regular basis. It is also possible to reduce future carrying costs by coordinating the scheduled delivery of materials with the expected usage (that is, the "just in time" principle).

4. *A policy of competitive procurement that seeks out qualified vendors.* Competitive procurement enables the purchaser to regularly compare and evaluate different sources of inventory and supplies. The policy may include the evaluation of price, product quality, and delivery schedules.

5. *A reporting system that provides feedback to the purchasing agent on inventory shortages or quality problems.* An effective reporting system can facilitate purchasing decisions by improving regular

communication between the shipping and receiving department, production personnel, and the purchasing agent. It permits the purchasing agent to benefit from the most current inventory information.

6. *Inclusion of terms of sale on purchase orders.* Purchase orders that include terms of sale fix responsibility for excess deliveries, damages during shipment, uncovered shortages after receipt, F.O.B. point, freight insurance, liquidated customs charges, failure to ship, and timely shipment of an ordered quantity. This procedure reduces the potential for misunderstanding between the vendor and the purchaser over purchase terms, and it encourages agreement on terms and conditions by both the vendor and the purchaser.

7. *A system distinguishing on-order and back-ordered purchases.* A control system reduces excessive inventory by showing requisitions for items already on order or back ordered and thus prevents duplication.

8. *Use of a standard methodology for determining economic order quantities.* Determining EOQ may involve a highly quantitative method or may be based on a less analytical model. The method chosen would reflect company policy on bottom-line quantity decisions, and it would establish procedures for authorizing inventory quantities that vary from the company norm. Documentation of purchase decisions and the correction of inconsistent purchasing practices are realized as a result of establishing formal EOQ methods.

9. *Determination of inventory stock-out costs.* The cost of maintaining an inventory quantity can be weighed against the cost of being out of stock on a particular item. An out-of-stock condition may be acceptable for some items if a short lead time exists or production can be switched to another item. An out-of-stock condition may not be acceptable for other items if production or sales would be curtailed.

10. *Methods for determining order quantities and order frequency criteria.* Deciding when and how much to order is significant in controlling inventory units. Two methods for anticipating quantities and frequencies are economic order quantity (EOQ) formulas and material requirements planning (MRP) procedures. Both techniques anticipate material needs for the production being scheduled. They reflect minimum safety stock policies of the company. The acceptability and costs for an out-of-stock condition are considered in determining the safety stock policies.

    EOQ techniques are quantitative and analytical. The factors used evaluate safety stock buffers, average periodic usage, delivery lead times, and unit storage costs.

    MRP techniques consider projected manufacturing schedules when order quantities and frequency criteria are computed. Product manufacturing schedules extended to material requirements address seasonal factors, delivery lead times, and safety stock buffers.

11. *Effective purchasing to control inventory requires management involvement.* It is based on periodically revised minimum order points and EOQ. The procedure may be performed manually (for example, by means of index file cards) or through a review of computer reports if inventory records are maintained by an EDP system.

B. Materials Control

12. At the core of effective inventory management is proper materials control, which depends on maintaining accurate records to establish inventory security procedures and cost controls. A business lacking such controls may experience excessive inventory shrinkage and loss of revenue due to inventory stock-outs.

13. A materials control system responds to these problems and is closely coordinated with purchase order control. Like purchase order control, materials control may be maintained manually by using a card system or, depending on the volume and activity of transactions, may be computerized. In recent years computerized materials control systems have become common due to the development of increasingly sophisticated materials control software for microcomputers. An effective materials control system usually includes the features described in the following paragraphs.

14. *Perpetual inventory records.* Perpetual inventory records maintain information about additions and deletions to inventories as well as the balance on hand. When inventory is counted, in either a complete physical or cycle count, the quantities on hand should be promptly reconciled to the perpetual records. (See paragraph 17.)

15. *Receiving reports.* To account for material received, a formal control document is used as part of the receiving function. A receiving report indicates the quality and quantity of incoming materials and identifies unacceptable goods that can be returned to the supplier. (If large volumes of materials are received, verification of a sample group may be appropriate, depending on the client's circumstances.) Receiving reports are distributed (a) to persons responsible for inventory control so that they can update the perpetual inventory records and (b) to the accounting department so that its staff can compare quantities received with quantities billed.

16. *Physical materials controls.* Cycle-count inventory procedures enable the client to periodically check the quantities on hand with perpetual inventory records. This procedure is frequently performed during normal business operations and provides an additional tool for the client to better control inventory.

    Adequate space is required so that inventory can be arranged in an orderly and identifiable manner. Each inventory item is assigned a specific location in the storage facility to prevent confusion that could result from mixing different items. Storing the same inventory items in separate locations is avoided, when possible, to minimize uncertainty regarding actual quantities on hand.

17. *Procedures for physically counting quantities on hand.* Periodic cycle counts and annual physical inventories of quantities on hand are important inventory controls. Counting procedures can include recording quantities counted on tags or tickets that are attached to the inventory. Counts are double-checked to ensure accuracy. Quantities are extended and reconciled to the general ledger. A book-to-physical adjustment is recorded, if appropriate.

18. *Materials requisition forms.* Materials requisition forms control the withdrawal of materials or supplies from stock. A separate form is prepared for each withdrawal; it identifies the name of the person authorizing the withdrawal and the department to which the withdrawal will be charged. Copies of all requisition forms are forwarded to (a) personnel responsible for maintaining perpetual

inventory records and (b) the accounting department for month-end summarization and recording in the appropriate general ledger account.

19. *Bills of lading.* A bill of lading or a similar document is used to authorize shipments or transfers of any product or material leaving the company. It provides an immediate record of the transaction and is forwarded to materials control personnel and the accounting department so that perpetual inventory and accounting records can be updated.

20. *Provision for perishable and dated merchandise.* Adequate provision must be made to protect perishable merchandise from adverse weather and other environmental conditions. In some cases environmentally controlled rooms are required to preserve or age merchandise such as food. Procedures for stock rotation would be established so that the oldest items will be moved first (FIFO). The practitioner may wish to consider an analysis of the scrap account or a similar account for perishable goods to evaluate whether the client's procedures are adequate and are being followed.

C. Security

21. Adequate inventory security requires the interaction of two controls—physical controls and accounting controls. Physical controls safeguard inventory against unauthorized access, while accounting controls ensure that inventory records properly reflect the actual inventory on hand. Effective inventory security includes characteristics such as those described in the following paragraphs.

22. *Limited access.* Physical access to inventory storage areas is restricted, by policy, to authorized personnel only. Authorized personnel, selected on the basis of job function, are easily identifiable and bonded. When outside personnel (for example, truckers) have access to inventory, they are supervised at all times while in the storage area.

23. *Storage security.* All inventory facilities are physically secured against unauthorized access. The storage area is separated from the shipping and receiving area and the production area.

24. *Adequate documentation.* All inventory movements, especially those that result in postings to accounting records, are supported by documentation. Documents are prenumbered so that all records of materials movement are controlled, and they are detailed to ensure identification of the items being moved. Dates are recorded to help post movements to the correct accounting period. Documents are reviewed and approved by supervisory personnel to ensure accuracy.

25. *Segregation of functions.* Personnel maintaining accounting or inventory records should not be responsible for the movement of inventory. Barring collusion, assigning inventory movement to personnel who do not maintain control records reduces the potential for unauthorized recording to conceal misappropriation.

D. Production Reporting

26. In manufacturing environments, production-reporting procedures are important for effective inventory management. Production data related to materials costs, scheduling, engineering, quality control, and other areas are referred to management for review. Accounting personnel receive current production and cost information so that general accounting records can be accurately maintained. Characteristics of effective production reporting are described in the following paragraphs.

27. *Shrinkage control reports.* Management and other appropriate personnel receive scrap, shrinkage, or damage reports so that inventory-level reductions of raw materials and components can be compared to actual production use. Shrinkage is analyzed according to causes, such as physical deterioration (natural causes), improper handling, and theft. The disposition of damaged products is reported with the items identified as reworked, sold for scrap, or trashed. Results are compared to established shrinkage goals.

28. *Bill of materials.* A bill of materials is a list of raw materials and components required for production. It must be reviewed periodically to ensure proper ordering of materials and efficient production methods. This review reduces the incidence of mistaken purchases of materials and avoids unexpected inventory stock-outs.

29. *Capacity requirements reports.* Capacity requirements reports compare the proposed production schedule's requirements to the load center's production capacity. This helps identify operations that can become bottlenecked if the production plan were implemented. By identifying potential problems before production is begun, management has more time to take corrective action and thus avoid delays due to capacity constraints.

30. *Production reports.* Issuing periodic production reports (daily or weekly, for example) permits comparison of actual work completed with projected schedules as well as with sales and delivery requirements. Production reports include sufficient information to accurately cost work-in-process inventories and project future production levels or completion dates. These reports promptly communicate quantities produced to inventory control personnel who update inventory (perpetual) records.

31. *Quality control.* Depending on the technical specifications of the product and customers' statistical quality control requirements, company procedures may include either sampling, spot inspection, or inspection of each item. Regardless of the number of items inspected, records showing the volume of items and reasons for rejection are continuously updated. Written notes from production supervisors or inspectors explaining the causes of rejection are included. The causes may be inferior raw materials or purchased components, poorly trained personnel, carelessness, machinery problems, or work environment. Customers are a valuable source of information about product quality. Customers' complaint correspondence, sales returns and adjustments, and increased finished inventory of a given product resulting from reduced sales and unusual order cancellations may, if monitored, provide much insight into the quality of products.

32. *Engineering changes.* Controls over engineering reduce production problems that result from a high number of unscheduled changes and unexpected variations in product quality and technical specifications. Engineering changes are written up in detail and require proper management approval

before being implemented. The approved changes are then communicated to purchasing, inventory, and production supervisors in sufficient time so that they may acquire any needed materials and plan any necessary procedural changes.

E. Inventory Cost Control

33. As with physical materials controls, proper inventory cost control requires monitoring the dollar value of inventory additions, deletions, and quantities on hand. The system must be reconcilable to the general ledger. Sufficiently detailed and maintained inventory accounts enable personnel to reconcile differences between a priced-out physical inventory and the general ledger or inventory cost control records and to isolate overages and shortages. In this regard an inventory cost control/general ledger system would produce dollar information paralleling and checking the physical (unit) information produced by a materials control system. The information may be maintained manually or by computer if a high volume of units or costs exists.

34. There are two major approaches to inventory cost control: job cost and process cost. Each of these approaches may utilize standard (estimated) or actual inventory costs in determining inventory values. Effective inventory cost control has the characteristics that are described in the following paragraphs.

35. *Identification and valuation of cost control elements.* Initially cost control elements are identified and evaluated. Inventory amounts on hand are valued in dollars by major category, such as raw materials, work-in-process, and finished goods. The amounts of each category on hand are subject to accounting or inventory cost control, and they are segregated by physical location (for example, warehouse, factory, department) or consigned location in transit.

    The detail level of such a dollar aggregate or dollar breakdown by physical location is based on the value of the goods being controlled, transportability of the material, and ease of conversion to cash. The cost-benefit of maintaining a desired level of information would be considered in the total evaluation, because maximum accounting and inventory cost control are expensive.

36. *Comparison and reconciliation of inventory additions to invoices and the general ledger.* A basic inventory cost control technique is establishing that additions to physical inventory correspond to additions to the general ledger. Before additions are entered into book inventory, they are matched to invoices according to units received, prices, and extensions.

    In cases where an invoice does not correspond to the physical quantities received or to the recorded price, the invoice would be subject to a debit memo for shortages, scrap, or nonagreed prices. In a standard cost system, purchase price variance is computed when the invoice cost/unit differs from the standard cost. Failure to isolate purchase variance may often be the cause for major inventory dollar discrepancies.

    In many instances goods are received without an invoice and vice versa. Usually, if the vendor's invoice is received without receipt of goods, the entry would not be recorded in the general ledger until the goods are received.

37. *Freight, shortage, and handling-cost accounting.* In a "controlled" inventory cost system, the practitioner considers how the entity records in-bound freight, storage, customs, clearance handling, and other similar charges. A logical question is—Will the charges be added to the end price of inventory on a percentage basis, or will some sort of specific cost be added to the inventory unit cost?

    The buildup of such raw materials cost would be reflected in perpetual unit records, variances, and expensed amounts isolated from amounts "capitalized" in inventory. Again, comparing the unit cost records and the general ledger inventory accounts is very important.

38. *Labor and overhead additions to inventory values.* Labor and overhead additions to inventory values, whether at a work-in-process or a finished goods stage, should be based on accurate cost records. Inventory records reflect the components of any finished, work-in-process, or raw materials stage of production. Thus, when the physical inventory is valued, those values can be compared to the general ledger values.

39. *Standard cost accounting controls.* Standard cost accounting controls can be very important to a successful inventory control system. Manufacturing standards usually include a current labor cost estimate based on expected hourly rates and hours of worker productivity. Usage estimates are based on expected material costs and production efficiency. Overhead estimates are based on budgeted indirect costs and projected volume.

    The detail level in standard cost records and reporting depends on the nature and size of the operation and management's information needs. Variances from standards would be analyzed to a practical degree, based on desired manufacturing efficiency and inventory cost control goals. These variances may include some or all of the following:

    - *Material purchase price variance.* The difference between actual cost of purchased materials and standard cost for the same items.

    - *Material usage variance.* The difference between actual quantities used and quantities that should have been used at standard cost for the quantity produced.

    - *Labor rate variance.* The difference between standard labor hours times the standard labor rate and the standard labor hours times the actual labor rate.

    - *Labor efficiency variance.* The difference between standard labor hours times the standard labor rate and actual labor hours times the standard labor rate.

    - *Overhead spending variance.* The difference between actual overhead expenses for a specified period and overhead absorbed in inventory based on actual production at standard overhead rates.

    - *Overhead volume variance.* The difference between overhead at standard cost for actual production and overhead at standard cost for quantities that should have been produced (that is, standard quantities) during a specified period.

40. *Transfers between inventory classifications.* An effective inventory cost control system monitors transfers between various inventory classifications and categories. Typically, the transfer may be from raw materials to work-in-process and from there to the finished goods department.

Transfers are usually recorded on production tickets, which serve the following purposes:

- Transferring and adding physical inventory from one or more records to others
- Transferring record keeping by the accounting department from one or more ledger accounting classifications to others
- Recording employee production to aid payment of any piecework incentives
- Accumulating efficiency statistics
- Posting variances
- Adding labor and overhead to the dollar value of the unit
- Issuing inventory and accounting for scrap, returned goods, and price adjustments

An effective inventory cost control system also generates information about all deletions. This is frequently effected by accumulating data from scrap tickets and memo/shipping tickets. The tickets usually become the basis for maintaining general ledger inventory records, charge backs to vendors, and charge backs to labor and departments on incentive programs.

41. *Inventory issues—cost of goods sold.* If records of deletions are well maintained, accurate monthly and quarterly income statements can be generated without waiting for a count and pricing out of physical inventory.

Inventory records are available to client management in units and dollars so that management can take action when out-of-balance conditions exist. To accomplish this, the following information is useful:

- Usage in last periods
- Comparison of usage to forecasts and budgets
- Turnover
- Months of supply on hand
- Minimum order quantities
- Economic order quantities

One or more of these statistical information aids would be available so that management can ascertain whether existing inventory is at an appropriate level.

In summary, today even the smallest businesses have or can acquire sufficient resources to effect inventory cost control. Previously used gross-profit control techniques, which frequently meet competitive pressures, can be examined and replaced with more effective costing techniques; the latter enable the client to answer the following basic questions, which can greatly impact profitability:

- What is the optimum dollar value of the inventory on hand?
- How much does it cost to carry the inventory?
- What is the actual cost of goods sold (that is, does it reconcile with the inventory at the end of the year)?

F. General Controls

42. Many problems concerning inventory control are not directly related to inventory; for example, problems in other areas of the client's organization may have a causal relationship to inventory. Some of these problems may be an ineffective management information system (MIS), lack of cost-benefit analysis, inaccurate forecasting, inadequate market penetration, excessive selling costs, obsolete and slow-moving inventory, and inefficient or unqualified personnel. Possible methods of solving these problems are described in the following paragraphs.

43. *Management information system.* Client management can more accurately identify problems if it has an efficient management information system. MIS provides accurate information on day-to-day company operations. The information is most often the result of an effective data processing system, which, depending on the client's needs, can be either manual or computerized.

44. *Cost-benefit analysis.* When making decisions that require choosing between alternatives, client management seeks the most recent accurate information available. If this information includes a cost-benefit analysis of the various alternatives, it aids the decision-making process. For example, if two product lines are compared, the variable costs and increases in general fixed costs are identified. A selling price is established and a sales forecast is made. A decision based on resulting profit margins can then be reached.

45. *Forecasting.* Forecasting is needed to determine optimal levels of inventory, and it requires an accurate flow of information on the projected demand for goods. Forecasted demand is usually based on historical data generated from within a business and is developed by analyzing averages, trends, and seasonal fluctuations. Information from outside the business can also be used, especially in long-term forecasting. Outside sources include published indexes, which may indicate the spending patterns of the various markets being studied.

46. *Market penetration.* Excessive inventory fluctuation and instability can often be attributed to inadequate market penetration. For example, the size of a client's sales force may be inadequate for the number of product lines, thus limiting market penetration and creating an erratic demand.

Additionally, the product line may be too narrow. In such cases customers will seek other vendors to supply the necessary product.

Market penetration can be determined by comparing the client's sales to total sales for a particular product in a defined region. From this analysis client management can decide if product lines need to be expanded or contracted or if an adjustment in the sales force will achieve greater market penetration.

47. *Selling costs.* Excessive selling costs will often make marketing a product line prohibitive in certain sales regions. By determining the most efficient method of product distribution, the client may find that it can reduce selling costs and be more competitive in new markets. Many factors are evaluated. The cost-benefit of the transportation alternative within the territory is analyzed. With advice from the practitioner, the client decides whether to maintain a fleet of trucks or use a common carrier in transporting products. A central or regional warehousing system can be used to reduce costs as well. The client may choose either to employ an extensive sales force selling directly to retailers or to rely on wholesalers to market its products.

48. *Obsolete and slow-moving inventory.* The first step in controlling obsolete and slow-moving inventory items is their identification. This requires accurate information, which may come from perpetual inventory records, usage records, and sales forecasts. These records are examined by client management for significant fluctuations, trends, and ratios (while periodic physical inspections are conducted). Management uses this method, along with sales forecasts, to establish the order points and order quantities that permit efficient inventory management.

49. *Personnel.* Inventory problems can be compounded by inefficient or unqualified personnel. However, replacing these employees may not always be the best solution; it could lead to discontent and unrest among other employees. One alternative is more comprehensive training and increased supervision, which can increase productivity while maintaining employee morale. Another option is to rotate employees to other duties more compatible with their abilities.

APPENDIX 63/B

ILLUSTRATIVE CONTROL MATRIXES

To assist the practitioner in diagnosing inventory management problems, the following illustrative matrixes have been provided. Exhibit 63B-1 addresses accounting controls and exhibit 63B-2 addresses physical controls.

The left-hand column of each matrix lists the symptoms of inventory control problems; their corresponding probable causes are listed across the top of the page. Each symptom may be related to the probable causes indicated with an X. The numbers in parentheses next to the probable causes refer to paragraph numbers in appendix 63/A.

Exhibit 63B-1

Accounting Controls Matrix

SYMPTOMS \ PROBABLE CAUSES	Lack of Adequate Purchasing Procedures (1–20)	Lack of Receiving Reports (15)	Inadequate Comparison of Goods Received to Invoices (36, 39–40)	No Investigation of Variances (32–41)	Inadequate Inventory-checking Procedures (14–20)	Lack of Control Over Materials and Production (12–20), (26–32)	Inaccurate Production Reporting (26–32)	Poor Quality Control (31)	Excessive Scrap (27)	Inadequate Cost System (33–41)	Excessive Selling Costs (47–48)	Improper Handling of Freight Costs (37)	Inadequate Perpetual Records (12–20), (36–38)	Inadequate Control Over Goods Returned for Credit (36)	Inadequate Storage Facilities (14–20)	Same Items Stored in Different Areas (21–25), (35)	Inadequate Control Over Materials and Goods in Outside Storage (21–25)	Lack of Control Over Inventory/Storage Costs (35)	Lack of Cost-Benefit Analysis of Alternatives (43)	Lack of Efficient EOQ System (8)	Inaccurate Budgeting and Forecasting (45)	Inadequate Market Penetration (46)	Other Probable Causes
1. Lack of Information for Management Decisions	X	X		X			X			X			X						X		X		
2. Heavy Inventory Buildup (Dollars)	X	X					X						X						X	X	X	X	
3. Lack of Product Line Cost/Profitability Information						X	X			X						X							
4. Unusually High Material-handling Expense						X	X					X	X		X	X	X		X				
5. Excessive Outside Warehousing or Temporary Storage Cost															X	X			X		X		
6. Frequent Job Cost Overruns				X		X	X		X	X													
7. Cost of Sales Increasing Faster than Sales Volume						X		X	X	X		X						X	X	X	X	X	
8. Disproportionate Fluctuations in Monthly Cost of Sales				X		X			X	X								X					
9. Eroding Profit Margin				X			X	X	X	X	X		X	X				X		X			
10. Significant Book-to-Physical Inventory Adjustments		X	X	X	X	X	X	X	X	X		X	X	X			X						
11. Abnormal Inventory Turns (Slow)	X			X	X	X	X		X	X				X				X					
12. Significant Increase in Working Capital Requirements						X												X	X	X	X		
13. Unfavorable Change in Current Ratio						X												X		X			
14. Burden Rate Fluctuations				X			X		X	X				X			X	X			X		
15. Loss of Business Due to Pricing				X		X	X	X	X	X	X								X			X	
16. Other Symptoms																							

Note: Numbers presented parenthetically (see Probable Causes above) refer to subsection numbers in appendix 63/A, "Characteristics of Effective Inventory Management," in this practice aid. However, reading should not be limited to reference subsections, since some of the other material may provide additional explanation for a particular inventory problem.

Exhibit 63B-2

Physical Controls Matrix

SYMPTOMS / PROBABLE CAUSES -	Lack of Appropriate Security (21-25)	Inefficient/Unqualified Personnel (49)	Lack of Adequate Purchasing Procedures (1-11)	Lack of Receiving Reports (15)	Inadequate Comparison of Goods Received to Invoices (15)	No Investigation of Variances (27)	Inadequate Inventory-checking Procedures (17)	Inaccurate Bills of Materials (28)	Lack of Communication Between Inventory Control and Production (26-32)	Inaccurate Production Reporting (29)	No Requisition System or Production Records (18), (26-32)	Lack of Segregation of Duties Between Physical Control & Inventory Records (25)	Inadequate Comparison of Items Ordered and Products Shipped (19)	Lack of Bills of Lading (19)	Inadequate Storage Facilities (20)	Same Items Stored in Different Areas (23)	Inadequate Control Over Materials and Goods in Outside Storage (22-25)	Inadequate Perpetual Records (12-20)	Lack of Efficient EOQ System (8)	Inadequate DP or Manual System (49)	Outdated Labor Standards (38-39)	Poor Quality Control (31)	High Number of Engineering Changes (32)	Excessive Unreported Scrap (27)	Other Probable Causes
1. Unexplained Shrinkage (Units)	X	X		X		X	X	X		X	X	X	X		X		X	X							
2. Lack of Information for Management Decisions (Units)		X				X			X	X	X			X				X			X				
3. Lack of Information for Job Order Status		X					X	X		X	X						X	X		X					
4. Discrepancy Between Quantities Entering Production and Quantities Produced										X	X										X	X		X	
5. Frequent Product Overruns		X						X	X	X	X									X					
6. Heavy Inventory Buildup (Units)				X			X		X	X						X	X	X	X						
7. Frequent Stock-out Conditions	X				X		X		X	X		X					X	X	X						
8. Inventory Not Arranged/Stored in Orderly Manner		X	X								X					X	X								
9. High Level of Obsolete and Slow-moving Stock			X				X			X						X		X	X			X	X		
10. Excessive Materials Handling			X							X						X	X		X		X				
11. Excessive Outside Warehousing or Temporary Storage			X												X		X								
12. Shipping Schedules Frequently Missed		X								X			X							X			X		
13. Customer Complaints Regarding Incorrect Shipments	X	X											X	X											
14. Significant Book-to-Physical Adjustments (Units)	X			X	X	X	X						X	X				X						X	
15. High Scrap, Waste, or Spoilage		X	X			X	X	X	X	X					X	X	X	X	X			X	X		
16. Other Symptoms																									

Note: Numbers presented parenthetically (see Probable Causes above) refer to subsection numbers in appendix 63/A, "Characteristics of Effective Inventory Management," in this practice aid. However, reading should not be limited to reference subsections, since some of the other material may provide additional explanation for a particular inventory problem.

BIBLIOGRAPHY

Brown, Robert G. *Decision Rules for Inventory Management.* New York: Holt, Rinehart and Winston, 1967.

Gue, Frank S. *Increased Profits Through Better Control of Work in Progress.* Reston, Va: Reston Publishing Company, 1980.

Hoffman, Raymond A., and Henry Gunders. *Inventories—Control, Costing and Effect Upon Income and Taxes.* New York: Ronald Press, 1970.

Hohenstein, C. Louis. *Practical Stock and Inventory Techniques That Cut Costs and Improve Profits.* New York: Van Nostrand Reinhold, 1982.

Horngreen, Charles T. *Cost Accounting—A Managerial Emphasis.* Englewood Cliffs, N.J.: Prentice-Hall, 1982.

Jannis, C. Paul, Carl H. Poedke, and Donald R. Ziegler. *Managing and Accounting for Inventories.* New York: John Wiley & Sons, 1980.

Kuehne, Robert S., and Jerry R. Baker. *Inventory Management Factormatic: A Portfolio of Successful Forms, Reports, Records and Procedures.* Englewood Cliffs, N.J.: Prentice-Hall, 1978.

Larson, Stanley E. *Inventory Systems and Controls Handbook.* Englewood Cliffs, N.J.: Prentice-Hall, 1976.

64/100 ASSISTING CLIENTS IN DETERMINING PRICING FOR MANUFACTURED PRODUCTS

CONTENTS

64/100 ASSISTING CLIENTS IN DETERMINING PRICING FOR MANUFACTURED PRODUCTS

64/105 SCOPE OF THIS PRACTICE AID

.01 The purpose of this practice aid is to provide useful information to practitioners engaged to assist clients in determining pricing for manufactured products. This practice aid may also be helpful in developing suggestions to improve pricing practices and thereby achieve more profitable operations. The sample work program used in this practice aid has been developed for a manufacturing concern and may be altered to fit any other type of operation.

.02 The principal output in this type of consulting services engagement is a written or oral report that recommends a procedure for determining prices. If appropriate, the report may also state that, in a follow-up engagement, the practitioner could assist the client in implementing and monitoring the recommendations. The report may also include observations regarding the client's general operations.

.03 In assisting a client in determining pricing for manufactured products, it is important for the practitioner to remember that price is determined by the market for the product. The pricing formulas presented herein enable the user to project prices based on known costs and assist in determining whether they are within market range. Determination of market range is not within the scope of this practice aid. The market for a product will also be affected by other values, including service, reliability, and quality.

64/110 DEFINITIONS

.01 The following terms are defined as they are used in this practice aid.

.02 *Direct costs.* The manufacturing expenditures that can be traced to a unit of output or a segment of business operation and that are directly associated with and chargeable to (rather than allocated or applied to) a particular job, process, department, or other segment of overall operations.

.03 *Indirect costs.* The costs that cannot be obviously attributed to a unit of output or a segment of business operations (for example, the cost of general plant supervision, unmetered power cost, building depreciation, and so forth).

.04 *Fixed costs.* The costs that remain at the same level during a specified period, regardless of the number of units produced or increases or decreases in business volume. They generally represent costs of being in business (for example, rent, depreciation, senior management's salaries, insurance, property taxes, and so forth).

.05 *Variable costs.* The costs that vary directly with changes in volume or level of activity (for example, materials, direct labor, sales commissions, certain maintenance expenses, and so forth). As activity increases, variable costs rise; as activity decreases, variable costs fall.

64/115 UNDERTAKING THE ENGAGEMENT

.01 An engagement to provide advice and assistance in determining prices may result from the practitioner's observation, inquiry, and analysis, or a client may initiate the request.

.02 Engagements to assist in determining prices vary in scope. A practitioner may be requested to conduct an engagement requiring considerable research and effort, from preliminary evaluation through preparation of documents and implementation of recommendations. On the other hand, a practitioner may only assist in preparing data for evaluation by client management. Such assistance may be limited to a consultation based on the practitioner's knowledge of pricing techniques, current economic conditions, and the client's situation. The extent and nature of the practitioner's work often depends on the client's capabilities and the circumstances. Throughout an engagement or a consultation, the client should be involved in providing essential data and in deciding on a course of action.

.03 To determine whether to undertake an engagement, a practitioner may wish to review the circumstances surrounding the client's request. In deciding whether to accept the engagement for either an existing or a new client, the practitioner may be guided by the following considerations:

- Would acceptance of either the client or the engagement be in keeping with professional standards and the CPA firm's or practitioner's policies?
- Would the client benefit from a pricing assistance engagement?
- Is the practitioner competent to complete the engagement successfully?

.04 Once practitioners agree to assist in determining pricing, they need to reach with the client a clear understanding of the service to be performed and the objectives, scope, and limitations of the engagement or consultation. The client should understand that the practitioner does not guarantee the determination of a formula that will produce the greatest profit.

64/120 PRELIMINARY EVALUATION

.01 A preliminary evaluation is useful in identifying the need for improvement. The practitioner often uses prior knowledge and experience to make initial judgments about probable pricing system deficiencies and information sources obtained during the preliminary evaluation. The answers to the following questions during the fact-finding portion of the engagement will help determine whether those initial judgments are appropriate.

- What products are sold?

- What is the market share and potential of each product?
- How are prices determined at present, and how often are they changed?
- What financial information, including cost information, does management receive?
- What is management's philosophy in pricing products?
- Is management aware of industry methods for pricing?
- Is management aware of competitors' prices?
- Is pricing affected by any regulatory agency?
- What cost centers have been established?
- Are cost and expenses grouped into fixed and variable categories or direct and indirect categories?
- How does inflation affect products or services sold?
- What impact will technological changes have on the client or its industry?

.02 Based on the preliminary evaluation, the practitioner makes initial judgments about the approach to achieve the engagement objectives and develops an appropriate work program.

64/125 ENGAGEMENT WORK PROGRAM

.01 Any engagement requiring a substantial amount of work can benefit through the administration of engagement controls. The engagement work program is an important aid for the practitioner in providing this administration. It is particularly useful when an engagement proposal must be prepared for the client's review and approval. To prepare an engagement proposal, the practitioner lists the steps necessary to complete the engagement and estimates the time required for each step. Even when a proposal is not required, the practitioner usually prepares a detailed work program for engagement control. A written work program may be unnecessary when the practitioner provides only a consultation.

.02 A detailed engagement work program might include—

- Specific engagement tasks in the order in which they should be performed.
- The names of individuals assigned to complete each task, including professional and client personnel.
- Due dates and estimated time requirements for completing each task.

.03 A sample engagement work program is provided in appendix 64/A. The objective of the sample engagement is to develop an improved pricing formula for a small manufacturing company. The sample work program form is not a standard or a preferred document. Not all the tasks described in this example are necessary for every engagement. However, the practitioner could use the work program for most engagements involving pricing manufactured products by simply choosing steps that are applicable to the particular situation. The practitioner can add steps if necessary.

.04 As in appendix 64/A, the tasks of an engagement to determine the pricing of manufactured products groups usually can be divided into four major phases:

.05 *Phase 1, fact-finding*, consists of conducting research and gathering data to use as resource information and to gain a thorough understanding of the client's business.

.06 *Phase 2, data analysis*, is a study of the information obtained in the fact-finding phase to identify weaknesses and deficiencies in the present system.

.07 *Phase 3, conception and design*, involves formulation and design of improved methods and procedures.

.08 *Phase 4, the final report*, is the preparation and presentation to management of the final document summarizing the results of the project.

.09 In somc engagements, the following two additional phases may be necessary:

.10 *Phase 5, implementation*, involves assisting the client in implementing the product-pricing system.

.11 *Phase 6, follow-up*, determines that the product-pricing methodology is being used properly and modified when necessary.

.12 For illustrative purposes, the fact-finding section (phase 1) of the sample engagement work program has been completed in all respects. It provides the practitioner with an example of how the entire work plan is prepared. The work program forms for the remaining engagement phases contain only the task descriptions.

64/130 DEVELOPING A PRODUCT-PRICING FORMULA

Background

.01 To assist the practitioner in understanding the requirements for an engagement to develop a product-pricing formula, a sample methodology is provided, starting in paragraph 64/130.05. It suggests how major steps in the project may be completed, but it is not intended to be all-inclusive for every step in the product-pricing process.

.02 The example is based on the sample work program (appendix A). It assumes that phases 1 and 2 (fact-finding and data analysis) have already been completed, and it essentially follows the major steps presented in phase 3 (conception and design). The example also assumes that historical costs, expenses, and other operating data, adjusted for economic conditions expected during a specified period, would be used in developing a sample pricing formula. (Projected or budgeted data is preferable, when available.)

.03 The hypothetical company in the example is a small manufacturing company, the LF&L Manufacturing Company, a producer of wire products for the automotive industry (principally shifting linkages, accelerator arms, hood braces, and so forth). The company fabricates its products in three major departments: metal cutting, pressing operations, and welding.

.04 LF&L Manufacturing Company generally produces goods to customer order, usually involving long production runs for each part. The company prefers to cost and price products based on factors developed on a per-thousand-pieces unit base.

Methodology

.05 The following major steps are involved in phase 3 of the work plan for LF&L Manufacturing Company.

.06 **Step 1.** Determine the materials cost for the pricing formula. This would include the costs of raw materials, purchased parts, and outside processing (see table 64-1 for an example). Such information can be obtained from vendor invoices, bills for materials, engineering standards, and manufacturing specifications.

.07 **Step 2.** Calculate a materials scrap allowance to be added to the costs of raw materials and purchased parts. The following example uses total materials cost as a basis for the calculation.

Projections

Raw materials cost	$______
Purchased parts cost	______
Outside processing cost	______
Subtotal for all Materials costs	$______
Scrap expense (per General Ledger)	______
Percentage of scrap	______%

Note: If LF&L's accounting system does not identify scrap expense separately, it can be estimated by calculating the difference between the cost of raw materials, purchased parts, and outside processing and the total usage cost of related items. Usage can be determined from LF&L's bill of materials or other engineering standards as well as equivalent units produced.

Table 64–1
Cost Calculation for Material, Purchased Parts, and Outside Processing

MATERIAL				
Description	Weight per 1,000 Pieces	Cost per Pound		Cost per 1,000 Pieces
		Material	Freight	
				$
			TOTAL	$

PURCHASED PARTS				
Description/Source	Quantity Required per 1,000 Pieces	Cost per Unit		Cost per 1,000 Pieces
		Part	Freight	
				$
			TOTAL	$

OUTSIDE PROCESSING					
Description	Source	Cost per 1,000 Pieces		Tooling Cost per 1,000 Pieces	Cost per 1,000 Pieces
		Freight	Process		
Heat Treating					$
Plating					
Painting					
Other					
				TOTAL	$

.08 **Step 3.** Calculate the cost factor for direct labor and machine set-up labor (see table 64-2 for an example) by referring to manufacturing specifications, labor standards by operation, and process-routing sheets.

.09 **Step 4.** Analyze manufacturing overhead items. First, the various manufacturing expense components identified during fact-finding and data analysis should be separated into fixed and variable portions (see table 64-3 for a sample matrix).

.10 After identifying the total manufacturing overhead expenses, calculate the corresponding fixed and variable overhead rates. Selecting appropriate bases for these rates (for example, direct labor dollars, direct labor hours, machine hours, and so on) is necessary at this stage.

.11 **Step 5.** Calculate the percentage allocation for the absorption of general, administrative, sales, and marketing expenses.

Projections

Total general, administrative, sales, and marketing expense	$______
Total manufacturing costs	______
Percentage of total manufacturing costs that are general, administrative, sales, and marketing expense	______%

.12 Obtain related expenses from the client's financial statements or general ledger.

.13 **Step 6.** Develop a product-pricing formula and design an appropriate form (see table 64-4 for an example).

64/135 REPORTS

Progress Reports to the Client

.01 Throughout the engagement, ideas and suggestions (which the practitioner will outline in the final report) may become apparent, and the practitioner needs to consider communicating them to the client immediately. The end of each phase of the engagement is generally an appropriate time to communicate such interim thoughts. Succeeding phases may be modified in light of the client's response to these interim recommendations. These preliminary communications with the client may be oral or in writing.

Final Report to the Client

.02 The engagement is generally complete when the practitioner presents the client with a final report. As noted earlier, the client may request the practitioner to assist in implementation of the pricing formula and subsequent follow-up on its use.

Table 64–2
Direct Labor and Set-Up Labor Cost

Operation Number	Description	Pieces per Unit	Pieces per Hour	Standard Hours per 1,000	Set-up Hours
Cutting Department					
	TOTAL CUTTING LABOR				
Pressing Department					
	TOTAL PRESSING LABOR				
Welding Department					
	TOTAL WELDING LABOR				
	TOTAL LABOR (all depts.)				

Direct Labor and Set-up Labor Cost Summary

Department	Direct Labor Hours	Direct Labor Rate	Extended	Set-up Hours	Set-up Rate	Extended
Cutting			$			$
Pressing						
Welding						
					Subtotals	$
					Average Production Run	
		Direct Labor Cost Per 1,000	$		SET-UP COST PER 1,000	$

Table 64-3
General Ledger Manufacturing Expense Account

Expense Account	*Fixed*	*Variable*
Tool room labor		X
Utilities	X	
Overtime premium		X
Group insurance		X
Property taxes	X	
Indirect shop labor		X
Factory supplies		X
General insurance (buildings)	X	
Holiday and vacation		X
Other benefits		X
Tool room supplies		X
Depreciation	X	
Maintenance and repairs		X
Payroll taxes		X
Engineering salaries	X	
Factory supervision	X	
Inspection department salaries	X	

Note: This practice aid considers all expenses as either fixed or variable, although, in fact, many can be both.

Table 64-4
Product-pricing Formula

		Cost per Thousand Pieces
1.	Material (from table 64-1)	$ ________
2.	Purchased parts (from table 64-1)	________
3.	Outside processing (from table 64-1)	________
4.	Subtotal for materials (lines 1 + 2 + 3)	$ ________
5.	Scrap allowance, handling, and other costs (% of line 4)	________
6.	Labor (from table 2)	________
7.	Set-up (from table 2)	________
8.	Variable overhead (% of line 6)	________
9.	Fixed overhead (% of line 6 at 100% capacity)	________
10.	Total manufacturing cost (lines 4 + 5 + 6 + 7 + 8 + 9)	$ ________
11.	General, administrative, sales, and marketing expense (% of line 10)	________
12.	Subtotal (lines 10 + 11)	$ ________
13.	Minimum selling price before commission (line 12 ÷ [1 − client's required profit %])	$ ________
14.	Sales commission ([line 13 ÷ (1 − commission rate)] − line 13)	________
15.	Required profit or sales commission (line 14 x required profit %)	________
16.	Target Selling Price (lines 13 + 14 + 15)	________
17.	ACTUAL SELLING PRICE[1]	$ ________

Several other product-pricing formulas used by a variety of industries are presented in appendix 64/B.

[1] Determined by competition and other factors.

.03 The final report summarizes the information that has been communicated during the course of the engagement and the practitioner's recommendations. If the final report is not in writing, the practitioner needs to consider documenting the conclusion and recommendations. These recommendations may include—

- Revision or development of a cost system.
- Establishment of standard costs.
- Modifications of the formula for establishing prices by product.
- Procedures for monitoring competition.
- Method for monitoring costs in order to periodically update prices.
- Adjustment of prices for inflation.

APPENDIX 64/A

SAMPLE ENGAGEMENT WORK PROGRAM

Project Planning Chart

Client LF&L Manufacturing Company **Date** November 19XX **Phase** 1 **Page** 1 of 6

Phase Description Fact-finding

Task	Description	Staff	Hours	Day 1	2	3	4	5	6	7	8	9	10
A.	Review of Operations												
1.	Determine present plant capacity.	J. Brown	2	■									
2.	Determine number of products, product mix,												
	and volume.	J. Brown	2	■									
3.	Identify individual cost centers.	J. Brown	3	■	■								
4.	Determine available storage capacity.	S. White	3	■									
5.	Determine shipping and receiving capacity.	S. White	2	■									
6.	Review floor-reporting date (e.g., labor												
	reports, production data, scrap, etc.).	J. Brown S. White	6		■	■							
7.	Determine availability and condition of												
	manufacturing space and equipment.	S. White	2				■						
		PAGE TOTAL	20										
		CUMULATIVE PHASE TOTAL	20										

Project Planning Chart

Client LF&L Manufacturing Company **Date** November 19XX **Phase** 1 **Page** 2 of 6

Phase Description Fact-Finding

Task	Description	Staff	Hours	Day 1	2	3	4	5	6	7	8	9	10
8.	Review manufacturing documentation, (e.g.,												
	bills of material and routing sheets), and												
	review procedures for developing labor												
	standards.	J. Brown	4				■						
9.	Determine present method for accumulating												
	product costs (e.g., job or process costs,												
	standard or actual costs).	J. Brown	3					■					
10.	Review method for pro-rating and allocating												
	manufacturing overhead costs.	S. White	2				■						
11.	Review client's present pricing method,												
	and obtain sample of current formula.	J. Brown	2					■					
12.	Review client's long-range plans, including												
	strengths versus weaknesses and risks												
	versus opportunities.	S. White	2					■					
		PAGE TOTAL	13										
		CUMULATIVE PHASE TOTAL	33										

Project Planning Chart

Client LF&L Manufacturing Company **Date** November 19XX **Phase** 1 **Page** 3 of 6

Phase Description Fact-Finding

Task	Description	Staff	Hours	Day 1	2	3	4	5	6	7	8	9	10
13.	Review whether client is comparing pricing												
	procedures with industry standards and												
	competitors.	S. White	1										
14.	Review client's philosophy about inventory												
	levels (i.e., maintaining high level of												
	inventory to prevent stock-outs versus low												
	inventory and long lead time on customer												
	shipments).	J. Brown	2										
15.	Determine historical pattern of price												
	changes; determine and explain causes for												
	changes; review impact of past price changes												
	on sales volume.	S. White	4										
16.	Review how volume impacts client's pricing												
	decisions.	S. White	3										
		PAGE TOTAL	10										
		CUMULATIVE PHASE TOTAL	43										

Project Planning Chart

Client LF&L Manufacturing Company **Date** November 19XX **Phase** 1 **Page** 4 of 6

Phase Description Fact-Finding

Task	Description	Staff	Hours	Day 1	2	3	4	5	6	7	8	9	10
B.	Financial Information												
1.	Gain understanding of client's current cost												
	accounting and pricing systems; review												
	existing accounting controls.	J. Brown	3										
2.	Obtain and review historical financial												
	information, including recent financial												
	statements, budgets, and actual budget												
	comparisons.	J. Brown	3										
3.	Determine whether client considers how the												
	following factors affect present pricing												
	procedures:												
	○ Direct and indirect costs	J. Brown											
	○ Fixed and variable costs	J. Brown											
	○ Volume and capacity	J. Brown	6										
	○ Break-even calculation	J. Brown											
		PAGE TOTAL	12										
		CUMULATIVE PHASE TOTAL	55										

Project Planning Chart

Client LF&L Manufacturing Company **Date** November 19XX **Phase** 1 **Page** 5 of 6

Phase Description Fact-Finding

Task	Description	Staff	Hours	Day 1	2	3	4	5	6	7	8	9	10
4.	If available, review profit by product line	J. Brown	4										
5.	Review manufacturing standards versus												
	variance information.	J. Brown	3										
6.	Obtain and review current financial												
	projections and long-term plans.	S. White	2										
C.	Economic and Market Factors												
1.	Determine whether client considers effect of												
	inflation on pricing practices.	S. White	2										
2.	Discuss with management capability for												
	increasing volume due to automation, new												
	technology, manpower availability, raw												
	materials availability, and utility												
	resources.	S. White	3										
	PAGE TOTAL		14										
	CUMULATIVE PHASE TOTAL		69										

Project Planning Chart

Client LF&L Manufacturing Company **Date** November 19XX **Phase** 1 **Page** 6 of 6

Phase Description Fact-Finding

Task	Description	Staff	Hours	Day 1	2	3	4	5	6	7	8	9	10
3.	Establish what client's market and industry												
	position are; determine who major												
	customers are.	S. White	2							■			
4.	Review whether regulatory agencies impact												
	pricing.	S. White	1							■			
5.	Determine how client considers cost of												
	borrowed money on pricing practices.	S. White	2							■			
6.	Prepare interim report to management,												
	indicating results of fact-finding phase												
	and observations	J. Brown S. White	14								■	■	■
		PAGE TOTAL	19										
		CUMULATIVE PHASE TOTAL	88										

Summary of Assigned Time
J. Brown – 46 hours
S. White – 42 hours
= 88 hours

Project Planning Chart

Client LF&L Manufacturing Company **Date** ______ **Phase** 2 **Page** 1 of 4

Phase Description Data Analysis

Task	Description	Staff	Hours	Day 1	2	3	4	5	6	7	8	9	10
1.	Compile reports, documentation, interview												
	information, etc., developed in phase 1, and												
	segregate material between operations,												
	financial information, or economic and												
	market factors.												
2.	Carefully analyze data pertaining to each												
	category, and determine weaknesses and												
	deficiencies that may affect present pricing												
	practices. Particular emphasis should												
	include at least the following aspects:												
a.	Compare volume of present and future												
	products with plant storage capacity.												
b.	Compare number of products and manufactur-												
	ing departments with number of cost centers.												
c.	Analyze quality and timeliness of information												
	received from manufacturing, quality												
		PAGE TOTAL											
		CUMULATIVE PHASE TOTAL											

Project Planning Chart

Client LF&L Manufacturing Company **Date** ______ **Phase** 2 **Page** 2 of 4

Phase Description Data Analysis

Task	Description	Staff	Hours	Day 1	2	3	4	5	6	7	8	9	10
	control, and shipping and receiving												
	departments and the method of incorporating												
	it into pricing process.												
d.	Select representative inventory sample and												
	test accuracy of production documentation												
	and present method for accumulating												
	product costs.												
e.	Study whether method for pro-rating and												
	allocating overhead costs to various												
	production departments or products is												
	correct; determine whether cost center												
	burden study is needed.												
f.	Analyze client's pattern and reasons for												
	price changes versus industry and												
	competitor's practices.												
		PAGE TOTAL											
		CUMULATIVE PHASE TOTAL											

Project Planning Chart

Client LF&L Manufacturing Company **Date** ______ **Phase** 2 **Page** 3 of 4

Phase Description Data Analysis

Task	Description	Staff	Hours	Day 1	2	3	4	5	6	7	8	9	10
g.	Study client's present pricing formula to												
	determine whether all cost factors have been												
	included, their accuracy, and the method												
	used for adding a profit factor.												
h.	Study client's current cost accounting,												
	pricing, and accounting control systems to												
	determine potential weaknesses or												
	deficiencies.												
i.	Review client's present pricing practices to												
	establish whether cost components have been												
	segregated into--												
	○ Direct and indirect costs.												
	○ Fixed and variable costs.												
j.	Determine whether client considers inflation,												
	contribution margin, and break-even												
	calculations in the present product-pricing												
	formula.												
		PAGE TOTAL											
		CUMULATIVE PHASE TOTAL											

Project Planning Chart

Client LF&L Manufacturing Company **Date** ______ **Phase** 2 **Page** 4 of 4

Phase Description Data Analysis

Task	Description	Staff	Hours	Day 1	2	3	4	5	6	7	8	9	10
k.	Analyze how interest rates and regulatory												
	agencies (if applicable) impact client's												
	pricing practices.												
l.	Prepare interim report to management,												
	documenting weaknesses and deficiencies												
	and preliminary conclusions resulting from												
	data analysis phase.												
		PAGE TOTAL											
		CUMULATIVE PHASE TOTAL											

Project Planning Chart

Client LF&L Manufacturing Company **Date** ____ **Phase** 3 **Page** 1 of 3

Phase Description Conception and Design

Task	Description	Staff	Hours	Day 1	2	3	4	5	6	7	8	9	10
1.	Based on results of data analysis phase,												
	develop recommended improvements. Group												
	them into the following categories:												
	○ Management pricing practices												
	○ Cost accumulation and accounting methods												
	○ Pricing formula												
2.	Analyze manufacturing overhead items, and												
	segregate them between fixed and variable												
	elements.												
3.	Calculate fixed and variable overhead rates												
	by using a uniform basis (e.g., direct labor												
	hours, machine hours, or direct labor dollars).												
	Note: Depending on number of products and												
	departments involved, it may be necessary to												
	calculate separate overhead rates for major												
	cost centers.												
	PAGE TOTAL												
	CUMULATIVE PHASE TOTAL												

Project Planning Chart

Client LF&L Manufacturing Company **Date** ______ **Phase** 3 **Page** 2 of 3

Phase Description Conception and Design

Task	Description	Staff	Hours	Day 1	2	3	4	5	6	7	8	9	10
4.	Calculate materials scrap allowance to be												
	added to cost of raw materials and purchased												
	parts.												
5.	Determine machine set-up allowance in												
	arriving at total labor cost.												
6.	Obtain list of salesman's or representative's												
	commission rates.												
7.	Analyze general and administrative expenses.												
	Determine uniform factor for absorbing												
	proportionate share of expenses.												
8.	Calculate uniform factor for shipping and												
	freight costs.												
9.	Conceptualize a new, improved cost												
	accumulation and product-pricing formula to												
	replace old formula.												
		PAGE TOTAL											
		CUMULATIVE PHASE TOTAL											

Project Planning Chart

Client LF&L Manufacturing Company **Date** ____________ **Phase** 3 **Page** 3 of 3

Phase Description Conception and Design

Task	Description	Staff	Hours	Day									
				1	2	3	4	5	6	7	8	9	10
10.	Design appropriate form that will accumulate												
	critical cost components, including raw												
	materials, purchased parts, and outside												
	processing; direct labor; and machine set-up.												
11.	For testing accuracy of formula, select rep-												
	resentative inventory items that were												
	recently priced by using client's old												
	pricing formula, and reprice them using new												
	formula. Determine reasonableness and												
	explain any differences.												
12.	Review preliminary recommendations with												
	management.												
		PAGE TOTAL											
		CUMULATIVE PHASE TOTAL											

Project Planning Chart

Client LF&L Manufacturing Company **Date** ____________ **Phase** 4 **Page** 1 of 1

Phase Description Final Report

Task	Description	Staff	Hours	Day 1	2	3	4	5	6	7	8	9	10
1.	Prepare final report summarizing engagement												
	and presenting recommendations and new												
	pricing formula with corresponding forms.												
2.	Present report to management												
	PAGE TOTAL												
	CUMULATIVE PHASE TOTAL												

APPENDIX 64/B

SAMPLE PRODUCT-PRICING FORMULAS

The formulas presented in this appendix are used in a variety of industries. They are intended primarily for reference purposes when the practitioner assists a client in developing a product-pricing formula. The unique requirements, cost accumulation methods, or market conditions of a particular client would normally require deviations from these sample formulas.

Exhibit 64B-1

Open-Die Forging

1.	Materials cost	$ ________
2.	Materials burden cost (% of materials)	________
3.	Heat treating cost (outside services)	________
4.	Subtotal for materials costs	$ ________
5.	Labor and overhead	
	Forge machine hourly rate* ($ x estimated hours)	________
	Machining department hourly rate* ($ x estimated hours)	$ ________
6.	Total manufacturing cost	$ ________
7.	General and administrative expense (% of total manufacturing cost)	________
8.	Subtotal	$
9.	Profit ([line 8 ÷ (1 − required profit %)] − line 8)	________
10.	Subtotal	$ ________
11.	Sales commission ([line 10 ÷ (1 − commission rate)] − line 10)	________
12.	Required profit on sales commission (line 11 x required profit %)	________
13.	Selling price before contingency	$ ________
14.	Contingency loss factor %	________
15.	Target selling price	$ ________

* Hourly rate includes direct labor and overhead.

Exhibit 64B-2

Furniture Manufacturing (Household Case Goods)

1.	Standard cost (labor, materials, and overhead)	$ ______
2.	Finishing labor	
	Hand rubbing (hours x hourly rate)	______
	Decoration (hours x hourly rate)	______
	Satin-lacquer finish (hours x hourly rate)	______
	Packaging/Crating (hours x hourly rate)	______
3.	Finishing materials	
	Lacquer (square feet x cost per square foot)	______
	Decorative hardware	______
	Packaging or crating materials	______
4.	Finishing cost	$ ______
5.	General and Administrative Expense (% of finishing cost)	______
6.	Total Product Cost	$ ______
7.	Target Selling Price (Total product cost ÷ [1 − (commission % + profit %)])	$ ______

Exhibit 64B-3

Screw Machine Products Manufacturer

Customer ______________________ Date Prepared ______________
Product ______________________
Materials Specification ______________________
Number of Parts ______________________

	Machine Number	Pieces per Hour	Average Wage	Cost per Part	Total
1. Labor cost for operations					
Turn and cut off	____	____	____	____	$ ____
Finish machine	____	____	____	____	____
Deburr	____	____	____	____	____
____	____	____	____	____	____
Total labor cost					$ ____
2. Materials cost					
Steel specifications (per part)	____				
Part weight	____				
Materials cost per pound	$ ____				
Part cost per piece	$ ____				____
Materials handling and scrap factor ____ %					____
Total Materials Cost					$ ____
3. Overhead					
Labor cost = $ ____ x ____ %					____
4. Outside processing cost per piece					____
5. Set-up					
(____ hours x hourly rate) ÷ ____ number of parts					____
Total cost per part					$ ____
6. Target profit margin ____ %					____
Target Price					$ ____

Exhibit 64B-4

Box Manufacturer

Date ______________________ Customer ______________________

Prepared by ______________________ Specifications ______________________

Lot Size ______________________

F.O.B. Plant ______________________

1. Materials

	Quantity (Gross B/F)	*Cost ($ per B/F)*	*Extended Cost*
Lumber	______	______	$ ______
Precut	______	______	______
Veneer	______	______	______
Plywood	______	______	______
Wire	___ (lineal feet)	___ (lineal foot)	
Total materials cost			$ ______

2. Labor and burden

Department A, Cutting

Total board feet ______ - Waste factor ______ = ______

Usable board feet ______ x Cost per board foot $ ______ = $ ______

	Estimated Number of Hours	*Cost ($ per Hour)*	*Extended Cost*
Department B			
Tenoner	______	______	$ ______
Gang Rip	______	______	______
Hand Rip	______	______	______
Diagonal	______	______	______
Resaw	______	______	______
Veneer	______	______	______

	Estimated Number of Hours	*Cost ($ per Hour)*	*Extended Cost*
Department C			
Nailing	________	________	$ ________
Printing	________	________	________
Department D			
Set-up	________	________	$ ________
Stitching	________	________	________
Total labor and burden cost			$ ________
Total factory cost			________
Administrative and selling expense (% of factory cost)			________
Total product cost			________
Gross profit*			________
Quote			$ ________

*(1 - [100 - desired gross profit %]) x total product cost

Exhibit 64B-5

Labor-Intensive Job Shop

1.	Materials	$	________
2.	Scrap (% of line 1)		________
3.	Outside processing		________
4.	Packaging		________
5.	Freight out		________
6.	Total materials and delivery	$	________
7.	Direct labor (estimated hours x hourly rate)		________
8.	Burden (% of line 7)		________
9.	Total manufacturing and delivery	$	________
10.	Selling, general, and administrative expense (% of line 9)		________
11.	Subtotal	$	________
12.	Profit ([line 11 ÷ (1 − required profit %)] − line 11)		________
13.	Subtotal	$	________
14.	Sales commission ([line 13 ÷ (1 − commission rate)] − line 13)		________
15.	Required profit on sales commission (line 14 x required profit %)		________
16.	Indicated selling price (lines 11 + 12 + 14 + 15)	$	________
17.	Selling Price	$	________

Exhibit 64B-6

Manufacturer of a Single Product

1.	Materials	$	________
2.	Scrap (% of line 1)		________
3.	Total materials cost	$	________
4.	Labor (hours x hourly rate)		________
5.	Labor burden (hours x hourly rate)		________
6.	Machine burden (hours x hourly rate)		________
7.	Manufacturing cost	$	________
8.	Selling, general, and administrative expense (% of line 7)		________
9.	Total cost	$	________
10.	Profit ([line 9 ÷ (1 − required profit %)] − line 9)		________
11.	Indicated selling price	$	________
12.	Selling price	$	________

Exhibit 64B-7

Industrial Plastic Covers Extrusion and Molding

1. Direct labor cost (not loaded)	$ ________
plus	
2. Direct materials cost	________
equals	
3. Total direct cost	$ ________
multiplied by	
4. Overhead factor plus minimum profit factor[1]	________[2]
5. Target Minimum Selling Price	$ ________[3]

[1] Minimum profit factor = % of selling price.

[2] Current combined overhead factor + profit factor = 0.00.

[3] Target minimum selling price adjusted for market conditions.

BIBLIOGRAPHY

Bailey, Earl L. *Pricing Practices and Strategies.* Report 751. New York: The Conference Board, 1978.

Lere, John C. *Pricing Techniques for the Financial Executive.* New York: John Wiley & Sons, Inc., 1974.

Lund, Daulatram, et al. *Pricing Policies and Strategies: An Annotated Bibliography.* Chicago: American Marketing Association, 1982.

Monroe, Kent B. *Pricing: Making Profitable Decisions.* New York: McGraw-Hill, 1979.

Symonds, Curtis W. *Pricing for Profit.* New York: American Management Association, 1982.

VII Litigation Services

Part VII—Litigation Services

70/100 PROVIDING LITIGATION SERVICES

CONTENTS

70/100 PROVIDING LITIGATION SERVICES

70/105 SCOPE OF THIS PRACTICE AID

.01 Civil litigation involves disputes between entities, governments, or individuals. This practice aid defines and explains the CPA's functions in the civil litigation process. When engaged to participate in the process, CPAs analyze what actually happened, develop assumptions about what would have happened *but for* certain circumstances, and explain these facts and assumptions in the form of an opinion. CPAs exercise these functions in either of two roles. As consultants, they explain their findings to the attorney who hired them. As expert witnesses, they explain them to the trier of fact (for example, a judge, jury, arbitrator, or mediator).

.02 Frequently, one or more parties to a litigation seek the assistance of a CPA on the issue of damages, which can be either out-of-pocket losses or a claim of lost profits. The plaintiff may enlist a CPA to compute damages, or the defendant may ask a CPA to study and possibly rebut the plaintiff's computation of damages. This practice aid focuses on such engagements.

.03 CPAs work predominantly in civil litigation, and therefore this guide focuses on such engagements. However, criminal cases may also require CPA services (for example, tax evasion, bid rigging, and price-fixing). Many of the comments in this guide are equally applicable to criminal litigation.

70/110 DEFINITIONS

.01 The following terms are defined as they are used in this practice aid.

.02 *Consultant.* As consultants, CPAs are hired strictly to advise the attorney about the facts and issues of the case and will not be called to testify about their work or opinion. This status generally provides a *work-product privilege,* which protects all work performed for the attorney; that is, the efforts, opinions, advice, work product, and involvement of the CPA will not be disclosed to the opposing side.

.03 *Expert opinion.* Testimony by a person qualified to speak authoritatively because of special training, skill, study, experience, observation, practice, or familiarity with the subject matter is expert opinion. It is expert knowledge not possessed by lay or inexperienced persons. The scope and nature of expert opinion testimony are defined within the applicable state or federal rules of evidence. Expert opinion testimony on accounting issues is given by an individual and not by an accounting firm. An expert opinion is not an attest opinion as the term is used in reference to a set or specified elements of financial statements. On rare occasions, though, an expert opinion may relate to an examination of a financial presentation or to a judgment on whether financial statements are presented in accordance with generally accepted accounting principles (GAAP).

.04 *Expert witness.* Expert witnesses are retained to render an expert opinion at trial. CPAs are identified to the opposing party as expert witnesses by the attorney who retained them. When retained as expert witnesses, CPAs need to conduct the engagement from the outset with the assumption that all work performed is discoverable by the opposing party.

.05 *Forensic accounting.* The application of accounting principles, theories, and discipline to facts or hypotheses at issue in a legal dispute is called forensic accounting. It includes every branch of accounting knowledge.

.06 *Litigation services.* As used in this practice aid, litigation services refers to any professional assistance nonlawyers provide to lawyers in the litigation process. CPAs' assistance can include quantifying damages, analyzing of business facts, and providing expert testimony. More extensive listings of services are provided in sections 70/115, "Types of Engagements," 70/125, "Engagement Objectives and Client Benefits," and 70/135, "Engagement Approach." The provision of management support in the litigation process, such as document management, computer selection and setup assistance, and case planning and administration, may be included in the range of services offered by CPAs. This support, however, is not discussed in detail in this practice aid.

70/115 TYPES OF ENGAGEMENTS

.01 Litigation services engagements in which a CPA provides advice and assistance can be categorized as follows:

.02 Damages

- Lost profits
- Lost value
- Extra cost
- Lost cash flow
- Lost revenue
- Mitigation

.03 Antitrust Analyses

- Price-fixing

- Market share, market definition
- Pricing below cost
- Dumping and other price discrimination
- Anticompetition actions
- Monopolization

.04 Accounting

- CPA malpractice
- Bankruptcy and reorganization
- Family law
- Tracing
- Contract cost and claims
- Regulated industries
- Frauds, civil and criminal
- Historical analyses

.05 Analyses

- Tax bases
- Cost allocations
- Tax treatment of specific transactions

.06 Valuation

- Businesses and professional practices
- Pensions
- Intangibles
- Property

.07 General Consulting

- Statistical analyses
- Actuarial analyses
- Projections
- Industrial engineering
- Computer consulting
- Market analyses
- Industry practices

.08 This practice aid describes the following typical assignments:

a. Developing damages studies to prove the cause of damages or the amount of damages

b. Determining the facts to support liability arguments

c. Assisting in criminal litigation

d. Developing automated document-retrieval systems

e. Providing bankruptcy and reorganization services

The focus of this practice aid is on developing damages studies.

Developing Damages Studies

.09 Proving the Cause of Damages. In order to be awarded damages in litigation, the plaintiff must prove two things: (*a*) the defendant violated a legal right of the plaintiff and (*b*) this violation harmed the plaintiff. Proving the cause of damages deals with the second issue. CPAs are experts at interpreting facts in business litigation and accordingly can offer insight and expert opinions to help determine whether the legal violation caused the plaintiff's damages.

.10 Causation can be obvious. For example, when a wage earner is physically injured and is unable to work for a period of time, it is relatively easy to prove that the loss of wages was caused by the physical injury. At the other end of the spectrum, however, a complicated antitrust case may involve legal violations that seem to be several steps removed from the plaintiff's injury as well as several other factors that may have contributed to the plaintiff's injury. For example, a plaintiff may allege that a defendant engaged in predatory acts, such as below-cost pricing, that caused bankruptcy. However, the plaintiff's failure could also be explained by other factors such as negative economic trends, negative industry trends, high interest rates, mismanagement by the plaintiff, and normal competitive responses.

.11 To prove the cause of damages in securities litigation, the CPA can assist by performing statistical analyses of a security's price movements and returns. If the CPA determines that a change in the defendant company's stock price was statistically significant when some information was disclosed or some misstatement was corrected, the relationship tends to prove the cause of damages. If the CPA cannot establish a relationship between the stock's price movement and a disclosure or correction, the cause of damages may not be proven.

.12 Only after the cause of damages has been established does the third issue, the amount of damages, become relevant.

.13 **Proving the Amount of Damages.** Engagements that involve proving the amount of damages are usually for a client currently in litigation or for an attorney seeking either a consultant or an expert witness. The most common objectives of such engagements are (*a*) to prepare or review a damages study for the plaintiff and (*b*) to rebut a plaintiff's damages study for the defendant. Frequently, the defendant also requires an independent computation of damages as alternative evidence for the trier of fact to consider. These types of engagements are referred to as proving the amount of damages.

.14 The plaintiff's loss can take many forms, depending on the facts of each case. Some of the more common types of damages claimed in civil litigations are—

- Increased costs (for example, interest, general and administrative costs, product development costs, and extra expenses).
- Loss of business goodwill.
- Lost earning capacity.
- Lost profits (past, prospective, or both).
- Lost revenues.
- Personal injury.
- Property damages.
- Lost sales value of a company.

.15 Appendix 70/B presents a sample engagement in a case study involving a plaintiff's loss of future profits when a state government prematurely terminates a contract with the plaintiff, a vending operator, to operate vending machines at rest stops on highways within the state.

Determining Facts to Support Liability Arguments

.16 The CPA as an auditor and a consultant to business entities is uniquely qualified to assist in determining certain economic, statistical, or commercial facts necessary to establish liability. The attorney uses these facts to develop the legal arguments and theories of the case. However, no matter how ingenious or appealing the legal arguments are in a case, they are no stronger than the facts underlying the attorney's arguments.

.17 Collecting facts on the relevant industry and market shares is among the types of activities often undertaken by CPAs. Organizing and analyzing bidding patterns, for example, may assist in proving or disproving a bid-rigging charge.

.18 In securities litigation, the issues of whether financial statements were prepared in accordance with generally accepted accounting principles (GAAP) or whether an auditor followed generally accepted auditing standards (GAAS) are often crucial in establishing the liability of the defendant company, officers, directors, or independent accountants. Obviously, few except CPAs-auditors have the expertise to evaluate and opine on the application of GAAP and GAAS.

.19 Other facts that CPAs often explain at trial include common industry practices and the way certain transactions pertinent to the case were structured and implemented.

Assisting in Criminal Litigation

.20 CPAs are occasionally engaged to assist lawyers in criminal cases, usually by lawyers representing defendants. In tax evasion cases, for example, CPAs commonly—

- Analyze government figures for mathematical accuracy, substantiation, and omissions or misstatements.

- Seek offsets to government claims (for example, unclaimed deductions or credits, over-reported income).

- Assist lawyers in developing a theory of defense.

.21 The CPA must be or become thoroughly familiar with the defendant's record-keeping practices in order to further the defense lawyer's understanding of the facts. Since a guilty finding requires affirmative knowledge and intent on the part of the defendant, the CPA also seeks evidence that the defendant neither knew nor participated in the accounting decisions or transactions that are the basis of the indictment.

.22 The government's final witness in a tax evasion case usually summarizes the evidence submitted by the prosecution and computes the alleged tax deficiency. CPAs occasionally serve as the defense counterpart by summarizing the defense evidence and computing the tax effects of applying the defendant's theory of the case.

Developing Automated Document-Retrieval Systems

.23 CPAs are frequently experts on management information systems and computer systems. Such CPAs are uniquely qualified to help attorneys in collecting, organizing, and summarizing the large volume of documents often used in a case.

.24 Every litigation situation requires a document-retrieval system, whether manual or automated. CPAs can offer assistance in this area as an integral part of litigation services. Attorneys frequently seek CPAs' advice when deciding whether to use an automated or manual document-retrieval system. This is especially true when an attorney whose first case involves numerous documents lacks the experience to properly evaluate the alternatives. Even attorneys experienced in using automated retrieval systems need help with unique types of business records. CPAs can assist in planning and setting up such system-and-processing groups; in formatting the input coding sheets; in explaining to the attorneys and the document coders what information is relevant and needs to be extracted from the documents; and in establishing appropriate procedures and controls.

Providing Bankruptcy and Reorganization Services

.25 Aspects of bankruptcy and reorganization services are areas of specialization within the litigation services area. There are unique issues in bankruptcy practice that do not exist in other types of litigation services engagements. Among these issues are the applicability of standards in out-of-court restructuring situations, pre-packaged Chapter 11 cases, and cases involving assistance to the court in preparation of monthly operating reports, determination of solvency of the debtor, and analysis of prospective financial information.

70/120 ENGAGEMENT ACCEPTANCE CONSIDERATIONS

The CPA's Role

.01 The CPA's decision to become involved in litigation may depend on whether the attorney is seeking an expert witness or a consultant. As an expert witness, the CPA presents opinions publicly in an objective fashion, but as a consultant, the CPA advises and assists the attorney or client in private. In the private consultant role, the CPA provides assistance more like that of an advocate to help the attorney identify the case's strengths and weaknesses or to develop strategy against the opposition.

.02 When acting as an expert witness, CPAs need to make clear to the attorney and client that the CPA's role is not to become the client's advocate. Client advocacy is a proper role for lawyers, but not for CPAs who will provide expert testimony. The CPA's role is to form an objective professional opinion based on either facts or hypotheses. As expert witnesses, CPAs need to maintain objectivity at all times in a litigation services assignment. Of course, they also need to present and defend their position with strength and conviction.

.03 An attorney or client who restricts the CPA's investigation by limiting access to the facts or by trying to influence the CPA's judgment endangers the CPA's reputation and the ultimate success of the case. The CPA needs a fair amount of freedom in determining the scope of the engagement after the duties have been established.

.04 The CPA should be wary of the attorney or client who seeks expert testimony but is unwilling to provide the necessary time and resources to properly prepare a professional opinion. If the attorney or client is unwilling to disclose all relevant facts about the litigation or to provide sufficient preparatory time, it is appropriate for the CPA to consider declining or withdrawing from the engagement.

.05 In some situations, however, an attorney's limited presentation of the facts to a CPA could be considered appropriate. This would apply if the attorney wants the CPA's contribution limited to testimony addressing a hypothetical construct presented at trial and the trier of fact is aware of the limitations.

.06 Few engagements are as demanding as those requiring CPAs to be expert witnesses at trial. Their every word, either in a deposition or on the stand at trial, will be scrutinized by intelligent and experienced attorneys and opposing experts. Any weakness or inconsistency in testimony will likely be caught and turned against the expert witnesses. Therefore, CPAs review their testimony given in previous engagements to be sure it is consistent with the testimony expected in the prospective engagement. CPAs who have no previous testimonial experience consider whether their background is appropriate for the prospective engagement and whether this litigation is a proper one for their first experience.

.07 CPAs consider whether the position they are to testify on is consistent or inconsistent with the position of the client. It can be extremely embarrassing to the CPA to give testimony that contradicts the client's positions, especially if it concurs with the opposition's news, and then to have the inconsistency disclosed by the opposition.

The Client-Practitioner Relationship

.08 The CPA determines whether the client is the attorney or the attorney's client. If the client is the attorney, then the CPA's work is usually protected from discovery by the opposing side as long as the CPA does not give expert testimony at trial. In the role of consultant, the CPA may help develop the strategy of the case, assist in preparing other experts to testify, develop cross-examination material for use against the opposing experts, and explore the strengths and weaknesses of each party's case. The protection from discovery is based on the attorney's work-product privilege. However, if the CPA's client is the attorney's client, then the attorney's work-product privilege may not protect the CPA's work from discovery by the opposing side. Regardless of who the client is, if the CPA is disclosed as an expert witness, the opposing party will probably be permitted to discover the work performed by the CPA expert witness.

.09 If the attorney's client and the CPA have an existing attest relationship, the CPA and the attorney (and perhaps the client) should consider what effects this will have. No ethical restriction prevents the CPA from performing attest services and litigation services for the same client. But in providing litigation services, the CPA should be satisfied that any information developed will not require an opinion about the financial statements. Although the requirement is unlikely, the CPA needs to consider the possibility of such negative consequences as the following:

.10 For the Attorney

- *Appearances.* The existing audit relationship may raise questions about appearances of objectivity.

.11 For the CPA.

- *Successful litigation against a client.* Successful litigation proceedings could have a material impact on a business, and if the CPA is identified with attorneys and other experts in a losing case, the attest relationship may suffer.

- *Perceived bias.* The CPA can be cross-examined on the stand about the attest relationship, including how large the attest fees are, in an attempt to demonstrate bias because of the continuing business relationship between the CPA and the client.

- *Opinion.* The CPA may determine that information gained in the litigation effort requires a change or a supplement to the attest opinion.

Conflict of Interest

.12 The CPA inquires about any possible conflict of interest before accepting a litigation services engagement. This is the most important engagement acceptance consideration. All parties to the litigation would be checked to determine if they are existing or past clients of the practitioner or the CPA firm and whether the CPA has any confidential information that would impose a duty to a client. Even when no conflict of interest exists, the CPA may not wish to accept an engagement that is directly contrary to the interests of another existing client. Civil litigation frequently names many persons and entities as defendants. In such a case, an attorney for one of the defendants may approach the CPA for assistance. Although no conflict of interest may exist with the plaintiff, one of the other defendants may be a client. A problem may arise if the plaintiff proves damages, because the defendants, once united in trying to defeat the plaintiff, may begin complaining about each other in an attempt to escape the ultimate payment of damages. At this point, the CPA could be placed in the embarrassing position of assisting an entity adverse to another current client.

.13 Determining whether it is a conflict of interest to accept a litigation services engagement against a former client can best be resolved on a case-by-case basis. Factors to consider include the length of time *since* the party was a client, the length of the time that the party *was* a client, the confidential information the CPA possesses that may become an issue in the litigation, and the issues of the case.

.14 CPAs consider if what they will be asked to do in a litigation services engagement is inconsistent with what they currently do for other clients. (That is, will it be a practice in accordance with GAAP?) For example, in a typical securities fraud case, the plaintiff wants to prove that the practices of the company's CPA contributed to nondisclosure or fraudulent disclosure in the financial statements. CPAs who are deciding whether to work for the plaintiff need to consider if the practices of the defendant's CPA represent conduct that they themselves engage in.

.15 To the lawyer retaining them, CPAs disclose, subject to the obligation of confidentiality, all current and former relationships with all parties to the litigation, even when they have concluded there is no conflict of interest. The lawyer and the client have the right to make their own determination about whether a conflict exists.

.16 A more detailed discussion of the issues of conflicts of interest in litigation services engagements is provided in section 72/100, "Conflicts of Interest in Litigation Services Engagements."

Timetables

.17 The CPA considers the required timetable for delivery of services in a litigation services engagement. Frequently, attorneys wait until the last few days before trial to retain experts. Once the trial starts, it is important that work be completed on schedule. If the CPA needs information or guidance from the attorney to continue the work, it often means waiting for the end of a trial day when the attorney returns from court.

.18 The litigation process is usually lengthy, and its progress is often determined more by the court calendar and occasionally the opposing side rather than by the attorney or client who hired the CPA. In accepting a litigation services engagement, therefore, the CPA needs to be prepared to provide services continuously or sporadically. Before accepting the assignment, the CPA considers the impact these inherent scheduling uncertainties will have on services to other clients.

Fees

.19 The CPA inquires whether the attorney or the client will ultimately pay the fees. The CPA then determines whether this party will be able to make payment if the litigation is unsuccessful. If not, the engagement might be viewed as one involving a contingency fee. A contingency fee arrangement for an attorney is entirely proper although the AICPA now permits a CPA to receive contingent fees. However, a number of states still prohibit contingent fees. Furthermore, most canons of the bar make it improper for an expert witness to be part of a contingency fee arrangement. The CPA needs to consider the adverse effect that such an arrangement has on the testifying expert's credibility. It is difficult to explain that a contingency fee arrangement does not bias the expert's opinion. Thus, a CPA should not accept an engagement that may require expert testimony on a contingency fee basis.

.20 The CPA may need to inquire about the billing-and-payment schedule. If an insurance company is funding the defense of a lawsuit, payment can be extremely slow; appropriate contract terms (such as late charges for slow payments), should be agreed to in advance. Typically, litigation engagements involve providing services one time for a particular litigant, and the CPA may often find collection of the final bill difficult, especially if the litigation is unsuccessful. The CPA may therefore consider obtaining a retainer to be applied against the final bill.

.21 Fixed fees are a problem in litigation services engagements. It is very common that additional work is required as new facts are obtained during the discovery process, and as legal theories evolve that enlarge the attorney's views of what should be done. The CPA who is working under a fixed-fee arrangement should sign written change orders before beginning new work. This fixed-fee arrangement may prove to be unworkable in the last stages of a litigation when it is most likely that the extra work will be asked for.

Staffing

.22 Litigation services engagements may require top-heavy staffing because of the complex nature of the work. In addition, attorneys usually demand significant involvement by the person who will be the expert witness. Therefore, CPAs need to closely supervise the staff and be ready to testify that all work, exhibits, analyses, and the like were prepared under their direct supervision and control. CPAs who cannot devote substantial time to a litigation services engagement because of involvement in other assignments would do best to decline the engagement.

Merit

.23 CPAs try to determine the merits of a case before accepting a litigation services engagement. This is extremely difficult to do in most instances, but if CPAs determine that the potential client's case lacks merit or that the testimony they are asked to present is groundless, it is best to decline the engagement.

Inconsistent Opinions

.24 At the outset of litigation, CPAs usually cannot know what their ultimate opinions will be. Only after a careful evaluation and analysis of the facts can they form opinions. An opinion could be harmful to the client. When CPAs draw conclusions inconsistent with the theories pursued by the client in the case, they consider how the client will view a withdrawal from the engagement. CPAs who believe they will not be paid for the services rendered if they withdraw from an engagement should carefully consider whether to accept the engagement.

70/125 ENGAGEMENT OBJECTIVES AND CLIENT BENEFITS

.01 Engagement objectives in litigation services depend on the role the CPA will play. If the CPA is retained as an expert witness, the objectives are to form an expert opinion and to testify about it in a deposition or at trial. If the CPA is retained as a consultant to the attorney, the objectives are to advise the attorney about the facts and issues of the case and possibly to help the attorney develop case strategy.

.02 In either role, the CPA could also assist in the cross-examining of the opposing party's fact and expert witnesses, in proving or disproving liability, or in proving or disproving the cause of damages and the amount of damages.

70/130 ENGAGEMENT SCOPE

.01 The scope of litigation services engagements is generally more difficult to establish at the outset than the scope of other types of consulting engagements. The more significant reasons for this difficulty are explained in the following paragraphs.

Changeable Environment

.02 Litigation is a fluid and ever-changing environment. When the CPA is first retained, the attorney may have a fairly well-conceived idea about the CPA's role in the case. However, over time the focus of the litigation may shift because of the discovery of additional facts, the winning or losing of legal motions prior to trial, or merely a better understanding of the real facts at issue. Any of these can alter the CPA's role and methodology.

Lack of Familiarity With Data

.03 When first retained in a litigation services engagement, the CPA generally does not know what documents and data are available to perform the analysis, nor does the attorney. If discovery is still open, the CPA can assist in identifying the types of documents and data necessary for analysis. However, the amount of effort required to obtain the documents and data is unknown, as is the specific information that eventually will be produced.

.04 The approach in a litigation engagement is generally inductive (that is, conclusions are drawn from particular facts or individual cases). Therefore, the CPA's methodology and analyses depend on the facts uncovered and the scenarios developed. Since these are usually unknown at the outset, the CPA cannot immediately determine the work steps after the initial fact-finding. Thus, a comprehensive and detailed work plan is nearly impossible to prepare at the beginning of a case.

.05 Uncertainty about the data available and the analyses to perform make developing a work plan difficult and potentially harmful to the client's interest. The opposing party can discover the work plan of the CPA designated as an expert witness. Furthermore, the steps in the work plan could prove impossible to complete, or the CPA may choose not to complete them because they do not make sense based on subsequent data, a lack of data, or facts later identified. A skillful lawyer for the other party might embarrass or even discredit the CPA by highlighting the uncompleted work steps and by confounding the rationales for a revised work plan.

The Attorney's Role

.06 The attorney may expand the scope of the CPA's engagement after becoming familiar with the special skills and insights the CPA brings to the litigation effort. After the CPA's expertise is established, the attorney may use the CPA to test legal arguments and theories and to help develop case strategy.

The CPA's Role

.07 **Acting as Expert Witness or Consultant.** The CPA's role as either an expert witness or a consultant affects the engagement's scope. If the CPA's role shifts during the engagement, the scope changes too.

.08 An attorney often keeps a CPA retained as an expert witness separated from other experts and from theories of the case that are irrelevant to the CPA's eventual testimony. This separation ensures that the CPA cannot be used to effectively contradict or refute other theories and experts retained by the client or the attorney. If the CPA expert witness has not exchanged information about testimony with any other witnesses, then the attorney may be able to block any inquiry into other witnesses' testimony during the CPA's testimony.

.09 A CPA hired as a consultant to the attorney can play quite a broad role. The CPA can explore many different theories and approaches to proving a point because the attorney's work-product privilege protects any potentially harmful disclosures from discovery by the other side. Although this privilege is not absolute, a judge rarely overturns it.

.10 The CPA consultant is used by the attorney in the same way as paralegals and consulting attorneys are used: The CPA will sit in on strategy sessions and help develop the attorney's approach to proving the case.

.11 **Preparing or Rebutting Studies.** The scope of the engagement will differ depending on whether a CPA is retained to prepare a damages study or to rebut or discredit such a study. The CPA who prepares a damages study for a plaintiff acts as a creator by collecting and interpreting sufficient facts, testing assumptions for reasonableness, developing a model of what would have happened *but for* the defendant's actions, and drawing conclusions about the appropriateness and reasonableness of the study. In contrast, the CPA who rebuts or tries to discredit a damages study for a defendant acts as a critic by testing the correctness of the facts and then determining if all other steps undertaken by the expert who prepared the damages study were reasonable.

.12 The CPA who has been asked to criticize the damages study would not prepare a counterdamages study, unless asked to do so. Many defense attorneys believe that the burden of proof is on the plaintiff, and they do not want to perform this task for the plaintiff. If the plaintiff has not adequately "proved" damages, which is the reason the defense attorney retained an expert to criticize the plaintiff's proof, then the defense attorney may want the plaintiff to bring a new trial to prove damages.

.13 Other defense attorneys, however, do not want the trier of fact to consider only one damages study when making a decision. They prefer to present their own alternate theories and calculations of damages to modify a possibly adverse decision. If the CPA is retained by this type of defense attorney, then the engagement's scope will include not only criticizing the plaintiff's study but also preparing a counterdamages study.

Engagement Letters

.14 Using engagement letters in litigation services engagements presents special problems. The CPA often feels a need for protection by issuing a letter that specifies the engagement's purpose, the tasks to be performed, and the terms of compensation. However, conflicting with this need is the fact that, if the CPA is identified as an expert witness, the opposing party can discover the engagement letter. Furthermore, if tasks enumerated in the engagement letter are not completed, or worse, are completed with adverse consequences to the CPA's client, an effective lawyer for the opposition may use this information to imply that the CPA's opinion is defective. The opposing side will have ample opportunity to question the CPA about the engagement letter at a deposition or trial. Although the CPA may have many good reasons for not undertaking or completing the tasks originally specified in the engagement letter, a good cross-examiner may confuse the issue and give the trier of fact the impression that the CPA did not perform all the analyses required to substantiate the conclusions presented.

.15 All things considered, engagement letters are appropriate for litigation services engagements. However, it would seem better not to issue overly detailed engagement letters in litigation services engagements because the nature of the engagement may change frequently. Sample engagement letters are provided in appendix 70/A.

Documentation

.16 A very important engagement consideration relates to the CPA's practices for documentation preparation and retention. All materials prepared, accumulated, or referred to by a CPA acting as an expert witness in a case might be made available to his client's opponent. Thus, it is critical that at the outset the attorney and CPA develop a clear understanding of exactly what the CPA will be preparing and retaining for the engagement. If the CPA receives a subpoena and has materials and files unseen by the lawyer that are possibly harmful to the case, the CPA-lawyer relationship and possibly the case can be seriously damaged.

Professional Standards

.17 AICPA Pronouncements. Litigation services are considered in several AICPA professional standards. In addition, the applicability of professional standards to litigation services is discussed in section 71/100, "Application of AICPA Professional Standards in the Performance of Litigation Services."

.18 In general, litigation services engagements are considered to be a form of consulting services as defined by the AICPA. Therefore, the Statements on Standards for Consulting Services (SSCS) must be followed in a litigation services engagement. These standards include the general standards of the accounting profession on professional competence, due professional care, planning and supervision, and sufficient relevant data as set forth in rule 201 of the Professional Code of Conduct. In addition, the SSCS includes standards dealing with client interest, the understanding with the client, and communication with the client.

.19 Litigation services are generally exempt from the Statements on Standards for Attestation Engagements (SSAEs) and from the Statements on Standards for Accounting and Review Services (SSARS)[1]. These exemptions do not apply, however, when the CPA performs an audit engagement or a compilation or review in connection with a litigation services engagement.

.20 AICPA Litigation Services Subcommittee. The Executive Committee of the Management Consulting Services Division of the AICPA has established a standing Litigation Services Subcommittee to assist in setting standards for and to provide advice and guidance to CPAs who provide litigation services and to monitor other standards promulgated by AICPA bodies that may have an impact on litigation services.

70/135 ENGAGEMENT APPROACH

Assistance With Case Strategy

.01 Both the lawyer and client in civil litigation are advocates for their position, and their advocacy influences how they view the facts of a case. One of the principal services a CPA offers them is an objective professional review of the facts. In addition, if the lawyer is unfamiliar with business, the CPA can help by explaining the business facts relevant to the legal theories of the case.

.02 The CPA can suggest several different ways to prove facts or make points, such as using the following three common methods to compute lost profits:

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[1] See "Attestation Standards: Attestation Engagement Interpretations of Section 100" (AICPA, *Professional Standards*, vol. 2, AT sec. 9100) and "Compilation and Review of Financial Statements: Accounting and Review Services Interpretations of Section 100" (AICPA, *Professional Standards*, vol. 1, AR sec. 9100.20).

- *Before-and-after approach.* The CPA uses the periods before or after the period of the alleged violation or both periods to estimate what the plaintiff's performance would have been during the period of the alleged violation.

- *Yardstick approach.* The CPA studies a similar company, industry, or market that was unaffected by the alleged violation in order to estimate what the plaintiff's performance should have been during the period of the alleged violation.

- *Sales projections (hypothetical profits).* The CPA creates a model of the impacted business by making assumptions based on how the plaintiff would have performed *but for* the alleged violation.

.03 If a cost-benefit analysis is feasible, the CPA can also assist in determining which approach is most cost-effective by putting the various approaches in proper perspective. For example, if the objective was to determine the number of exceptions in a given population (such as the number of invoices paid without documentation of approval) or to compute the defendant's market share, possible approaches include reviewing the entire population, a statistical sample at various confidence levels, or a judgmental sample. The CPA can also advise on the costs and benefits of the alternative sources of market share information — expert opinion, primary research, secondary sources, econometric models, or detailed surveys.

Assistance With Discovery

.04 Discovery takes place in the time between filing the original pleadings (the complaint and answer) and beginning the trial. Discovery is the attempt to find out what the other parties' facts and theories are. Most of the CPA's work is performed during this period of discovery. The CPA collects all necessary facts, analyzes the facts, develops any assumptions, and reaches all conclusions.

.05 Various legal tools are used in discovery; the CPA may suggest the use of any or all of them as aids in performing services. The major discovery tools and their uses are described in the following pages.

.06 **Interrogatories.** Interrogatories are often the first discovery device used. They are written questions put forward by one party and served on the opposing party, who must answer the questions in writing, under oath. Interrogatories serve as an excellent tool to obtain information, when little, if anything, is known about the opposing party. The CPA's special knowledge of business or a particular industry can help in constructing questions to develop a thorough understanding of an organization's systems, documentation, and structure. For example, the nature and extent of the opposing party's financial reporting and management information systems are possible areas of inquiry. The names and titles of officers or principals in the business can also be obtained for further discovery of their files.

.07 **Requests for Production of Documents.** A request for production of documents requires one party to provide the opposing party with documents in its possession that are relevant to the issues in the case. These requests usually follow the interrogatories. The requests must be very specific or the opposing party may not produce the documents, even when exactly what information is sought is apparent. Therefore, each party needs to request exact titles of reports, which can be culled from the information already obtained through interrogatories or depositions.

.08 The party responding to the request for production of documents does not usually copy the documents and send them to the requesting party. Instead, the documents are made available at the responding party's business or its attorney's offices. The requesting party is then given the opportunity to review the documents and decide which ones to copy at its own expense.

.09 The requesting party's attorney will often want the CPA to assist in reviewing financial and other business documents produced by the opposing party. The CPA can be extremely helpful in identifying the relevant documents and in ensuring that they are copied and the irrelevant documents are not. This is important because, besides copying costs, the time needed by the CPA and the attorney to review all documents copied will depend on the number of documents discovered. A knowledgeable CPA can significantly reduce unnecessary copying and subsequent review by identifying the types of financial and business records that are necessary to prove the issues. Exhibit 70B-2 in appendix 70/B is a sample request for production of documents.

.10 **Depositions.** A deposition is the oral testimony of a witness questioned under oath by an attorney. The questions and answers are transcribed by a court reporter who records the testimony in a written document that can be used in a court. In a litigation services engagement, the CPA may give the deposition or assist the attorney in taking the deposition.

.11 *The CPA giving a deposition.* The opposition's attorney usually takes the deposition of a CPA who is retained as an expert witness in a civil case (depositions generally are not given in criminal matters). The attorney does this to fully understand the CPA's background and the reasoning and opinions about the case. Often the deposition affords the only opportunity prior to trial for the attorney to question the expert in-depth. The attorney uses the deposition to evaluate the CPA's strengths and weaknesses as a trial witness and develop a comprehensive understanding of this expert's opinions, studies, and analyses. However, some experienced attorneys prefer not to question an expert in depth at a deposition because it allows the expert to thoroughly test theories and approaches and then correct them as needed for the trial. Questions at the deposition usually cover all work performed by the CPA, including rejected analyses, blind alleys, and unused information. In addition, the deposition can be used to narrow the scope of the CPA's testimony at the trial, because anything said at the deposition can be used to impeach the CPA's credibility at the trial. Therefore, the CPA's testimony in the deposition needs to be consistent with the testimony at the trial.

.12 During a deposition, the CPA should answer questions honestly without volunteering additional information. The CPA should read the deposition transcript carefully before signing and again before testifying at trial, since it often will serve as a script for the cross-examination by opposing counsel.

.13 Depositions of experts in federal cases are covered by the federal rules of evidence and civil procedure [FRCP §26(b)(4)] and are not an absolute right of the opposing party. Usually, agreement by both sides or the direction of the court is required to obtain an expert's deposition.

.14 *The CPA helping an attorney take a deposition.* Although the only person who can ask questions at a deposition is the attorney, a CPA can provide extremely valuable assistance to the attorney during the examination of business people, particularly those in the financial or accounting areas. Most frequently the attorney asks the CPA to assist at a deposition in examining the opposition's expert. The CPA knows the language of business, including state-of-the-art terminology, and can usually detect a witness's uninformative answer or a sign of weakness that the attorney might miss. The CPA can suggest additional questions to the attorney by passing notes or at meetings during breaks in the deposition. In this way the CPA can help identify an inconsistency or expose a flaw in testimony.

.15 Even an attorney who does not request the CPA's presence at the deposition will often ask the CPA to draft questions to ask. These questions have two aims: (*a*) to clarify the opposing expert's analysis and (*b*) to point out problems, inconsistencies, and errors in the analysis.

.16 Again, lawyers differ in approach. Some believe it is unwise to make the witness aware of analytical flaws at the deposition. They prefer to withhold this information for use at the trial. Others believe that the deposition can be used to point out the weaknesses in their opponent's case, thus encouraging settlement or, at a minimum, getting the expert to correct a presentation for use at the trial. Exhibit 70B-3 in appendix 70/B provides a sample list of possible deposition or cross-examination questions in response to exhibit 70B-1, the sample damages study.

.17 **Subpoenas.** A subpoena commands a person to appear in court. The subpoena *ad testificandum* commands a person to appear and testify as a witness. The subpoena *duces tecum* commands a person to produce documents in court that are then designated as evidence.

.18 The subpoena is frequently the only method of obtaining information from third parties not related to the litigation. The recipient of a subpoena who refuses to cooperate can be found in contempt of court and jailed until agreeing to cooperate.

.19 A party, including the CPA hired for the case, may file an objection to a subpoena with the court, thus requiring a hearing on the relevance and propriety of materials demanded. This practice is not recommended because it might create a conflict between the CPA and client, delay the trial, and generate costly legal fees. Occasionally, however, it may be necessary for the CPA to object if a subpoena requests irrelevant documents or materials related to other clients. Often the opposing attorneys can reach a compromise agreement on how much they will try to discover about the CPA experts and thereby avoid issuing subpoenas or filing objections.

.20 The opposing counsel may wish to go on a fishing expedition in the records of other nonparty clients of the CPA through the subpoena and deposition process. CPAs need to be careful not to violate rule 301 of the AICPA Rules of Professional Conduct, which requires the CPA to maintain client confidentiality. The CPA has a duty to comply with only a validly issued subpoena and therefore may find it necessary to test and verify the subpoena's validity before revealing confidential client information.

.21 **Requests for Admissions.** A request for admission is used to obtain the opposing party's verification of information as fact. The request must be relevant to the litigation. Verifying the information as fact is usually adverse to the interest of the party making the admission.

.22 Requests for admissions help narrow the factual issues to be litigated at trial. Any facts that can be agreed on by both parties prior to trial do not have to be proved at trial. This can greatly decrease the time it takes to try a case and is therefore favored by the judiciary. The CPA can suggest the types of facts that the opposing party could admit prior to a civil litigation trial. The CPA can also assist the attorney in developing arguments about why certain business facts should or should not be admitted prior to trial.

.23 **Other Discovery Issues.** Documents or data obtained through the discovery process need to be organized. The CPA can help in categorizing the information, developing or maintaining a retrieval system for it, and summarizing it for testimony.

.24 Discovery includes obtaining third-party documents and data, which usually take the form of industry, competitive, or economic information. If the information is obtained from another client without the other client's express consent to use it for litigation or from a source that will not allow its disclosure, then it probably cannot be used to support an opinion at trial.

.25 Economic and financial data are frequently available from computerized data bases. To use this information effectively, the CPA needs to understand how the data are input into the data bases as well as how the people who maintain the data bases can manipulate the information. All documents or information from data bases that is collected and supports the CPA's assumptions, conclusions, or opinions needs to be properly organized and referenced in workpapers. Extraneous material is removed because it can only lead to needless cross-examination and confusion. However, removed material is a proper area of examination at the deposition or trial.

.26 Normally, a proper foundation must be established for all testimony and documentary evidence submitted during a trial. Typically, witnesses cannot testify about information told to them by a third party. All documents submitted as evidence must be authenticated by their authors, recipients, or custodians. Otherwise, the testimony or written evidence may be classified as hearsay or lacking a proper foundation and may be excluded from the trial.

.27 However, several exceptions to the hearsay rule may affect CPAs acting as expert witnesses. Under the federal rules of evidence, expert witnesses are allowed wide latitude in what they may rely on to formulate an opinion. An expert, in *forming an opinion*, may rely on information that otherwise would be deemed hearsay if admitted to *prove* something. Such items include research and academic literature available in the expert's field, as well as consultations with other experts and interviews with parties who have relevant information. The testimony may be based on all of the expert's research, interviews, and conversations.

Analysis

.28 Another important exception to the hearsay rule relates to business records, which include journals, ledgers, files, correspondence, financial statements, and other records created or maintained in the normal course of business. The CPA expert witness may rely on such records without auditing them. Of course, if the opposing side shows any inaccuracies or deficiencies in such records during cross-examination or surrebuttal, the disclosure may have an impact on how the trier of fact weighs the expert's opinion.

.29 Analysis is, of course, the best use of the CPA's expertise. It involves making assumptions and calculations to form opinions and prepare testimony. Analysis may have a broad or narrow focus, depending on the case.

.30 Since the opposing party's examination of the CPA will focus primarily on this work, it needs to be well thought out, based on thorough study, and properly supported and documented. In many instances, formal written documentation may be appropriate. In other situations, the CPA needs to be fully prepared to orally defend his or her sources and rationales. The CPA who uses computer models and programs needs to be prepared to explain in detail the logical relationships and calculations contained in these models.

.31 The CPA's work for the plaintiff in a litigation services engagement very often involves creating financial projections for a lost-profits damages study. Obviously such a task entails a significant degree of uncertainty because it projects profits the plaintiff would have earned over some time period if the defendant had not interfered in some manner. Over the years the federal courts have come to recognize the difficulties plaintiffs face in damages studies and, in many cases, have accepted the concept that once the fact of damages is proven, the amount of damages may be proven with much less certainty and precision. The courts have reasoned that the defendant should not benefit from the very activities that the plaintiff alleges not only caused the damages, but also made it difficult to calculate. Thus, experts are generally given significant latitude in proving the amount of damages as long as they use reasonable assumptions and the best information available in constructing the damages estimate.

.32 Appendix 70/B provides a case study of litigation for which a CPA developed a sample lost-profits damages study. The following discussion of the factors that are analyzed to compute lost-profits damages will help to explain the calculations in the exhibits of appendix 70/B.

.33 **Defining Relevant Markets and Computing Market Share.** The size and composition of a market may have a direct impact on a plaintiff's sales potential. Basically, the CPA evaluates two factors, geography and competition, to determine the extent and nature of the market for the products or services in question.

.34 A market's geographic range influences how lost profits are calculated. For example, a vendor in a local market could claim it had plans to expand to national or even international distribution. The CPA needs to determine the feasibility of this claim by asking such questions as the following:

- Is there demand for the product or service on the national and international level?

- Do extrinsic factors, such as prohibitive transportation costs, limit expansion?

- Did the vendor try to expand in the past and fail because of its own poor planning?

.35 The number and kind of competitors also affect potential profitability. Questions the CPA might ask include:

- How many competitors are there in the given market?

- Does one large competitor dominate the market or do numerous small competitors constantly jockey for position?

- If the plaintiff is a relatively new vendor, is its chosen market difficult to enter? What has been the actual history of entry and exit to this market? Are there significant capital requirements or other barriers to entry?

- Do any of the competitors possess advantages, such as patent protection, copyrights, trade secrets, name recognition, or head starts?

.36 The relevant market for a product or service might include the markets for *similar* products or services. For example, the ballpoint pen market might include the felt-tip pen market because both meet the need for writing instruments.

.37 The CPA considers whether to include other products or services in defining the market. In addition, the CPA considers the effect that a change in the price of one product or service will have on the sales of a substitute product or service.

.38 After determining who the competitors are, the CPA can attempt to calculate the market share of each and whether market shares have remained constant or fluctuated over time. By using the but-for model, the CPA can then determine whether the defendant's allegedly improper acts altered the number of competitors and their market shares.

.39 **Restating or Reconstructing Financial Records.** The civil judicial system is relatively slow in bringing cases to trial, and as a result, many years can pass between the time alleged injuries occur and the time experts are retained to prove damages or reconstruct what actually happened. Even in well-managed businesses, old records can be misplaced or destroyed because very few managers put a high value on them. The information that managers need and want generally deals with the present and the future. Therefore, records prepared in the normal course of business are sometimes unavailable or have gaps by the time the CPA identifies the types of documents relevant to proving or disproving damages.

.40 Cases involving multiproduct-line companies, in which the alleged injury does not affect the entire company, present additional challenges. The financial statements of the entire company, although relevant and helpful, may not be useful to prove damages to only one product line. Ideally, the plaintiff company has product-line financial records and a well-documented accounting system that allocates common costs among the different product lines. Frequently, however, this is not the case.

.41 New or fast-growing companies often do not have accounting systems that have kept pace with the company's needs. In these situations, a CPA reconstructs or creates accounting records by making reasonable assumptions and by using cost accounting theory to prove the losses suffered by the plaintiff.

.42 When a CPA is retained to analyze financial records that have not been compiled, reviewed, or audited by another CPA, there may be concerns that the financial statements are not in accordance with generally accepted accounting principles. The CPA may wish to reconstruct or restate these financial records to conform to GAAP or to another appropriate basis. However, it is not incumbent on the CPA to audit the records.

.43 **Calculating Actual Losses.** A lost-profits claim is usually computed as either the incremental damages or the difference between what actually happened and what should have happened. The incremental-damages approach requires calculating lost incremental profits related only to the units that would have been sold but for the defendant's actions. The other approach requires computing the plaintiff's actual total profits for the product line on which the defendant's actions or inactions had an impact.

.44 The difference between the two methods is illustrated in the case of a plaintiff that actually sold two hundred units and claims it would have sold an additional one hundred if the defendant had not interfered. The plaintiff's CPA computes incremental damages by considering only what the profits would have been on the additional one hundred units. Using the other method, which involves determining the difference between actual and but-for profits, the CPA subtracts the profits on the two hundred units actually sold from the estimated but-for profits on the three hundred units that would have been sold.

.45 If successfully adjudicated, a lost-profits damages claim is normally taxable to the plaintiff. Therefore, the relevant loss to the plaintiff is the difference between actual pretax profits or cash flow and the projected pretax profits or cash flow the plaintiff would have earned but for the defendant's conduct. If the damages period lasts a long time, during which tax rates have changed, the CPA needs to consider calculating lost profits after tax for each of the years during the damages period. The CPA would then gross up the after-tax damages to a pre-tax figure using current tax rates.

.46 If the defendant's behavior caused a reduction in the plaintiff's sales volume, actual total profits may be used to model what would have happened but for the defendant's alleged violations. Using cost-volume relationships developed from actual transactions to determine fixed and variable costs, the CPA computes the profitability of the incremental lost sales. This is accomplished by subtracting the variable costs from the revenue produced by the incremental sales, assuming the relevant range of the fixed costs has not been exceeded.

.47 Another remedy often sought by plaintiffs is restitution, particularly through rescission of a contract. Restitution is the restoration of anything to its rightful owner and the return of both parties to their original condition. To restore the plaintiff's original condition requires calculating actual losses suffered.

.48 Although economists, non-CPA consultants, and business professors can be retained to perform damages quantification in litigation, computation of the plaintiff's actual losses is often given to the CPA to perform. The reason is the CPA has the training, education, and experience to expertly calculate what actually happened.

.49 **Developing Profit and Cost Relationships.** Analyzing profit and cost relationships is essential to making assumptions about what these relationships would have been but-for the defendant's action. This analysis may be of the profit and cost relationships of the plaintiff or of other organizations that the CPA believes would have had relationships similar to the plaintiff's organization.

.50 The CPA may conclude that some of the plaintiff's actual profit and cost relationships would remain the same in the but-for model, whereas other relationships were affected by the defendant's behavior. Isolating the impact of the defendant's behavior on the plaintiff is difficult and requires a reasonable effort to consider other factors that could have affected the plaintiff's profitability in the but-for model. By using actual relationships, the CPA can consider the effects of factors unrelated to the problems allegedly caused by the defendant. For example, if the plaintiff had incompetent management, high turnover of employees, a strike, a fire, a bad financing arrangement, or any other problem unrelated to the defendant's actions, then the impact of these problems would be included in the but-for model.

.51 To compute lost profits, the CPA needs to compute the amount of revenues lost. However, different approaches exist to calculate the lost profitability. The CPA can determine the relationship of profit to revenue without a detailed analysis of costs. (Regression analysis and other econometric tools may be useful here.) The CPA can also model each cost element necessary to generate the lost revenue in a cost-buildup approach. Using a third method, the CPA can model significant cost groupings of units (for example, cost of goods sold; operating expenses; sales, general and administrative expenses; or other income and expenses). Any of these approaches is valid, and the method chosen depends on the facts of each case and the availability of data.

.52 **Developing Pro Forma Financial Statements.** In a lost-profits damages study, pro forma financial statements are developed with the assumption that the defendant violated a legal right of the plaintiff and that this violation caused financial harm to the plaintiff. The statements can be based on either historical financial information or projected calculations or both. The plaintiff must show what financial performance would have been but for the defendant's violations.

.53 The CPA engaged in preparing expert testimony may develop pro forma financial statements. Pro forma financial statements prepared in litigation services engagements are not subject to the AICPA's authoritative statement on prospective financial statements, *Financial Forecasts and Projections,* issued in October 1985. Paragraph 3 of this statement states:

> This Statement does not provide standards or procedures for engagements involving prospective financial statements used solely in connection with litigation support services, although it provides helpful guidance for many aspects of such engagements and may be referred to as useful guidance in such engagements. *Litigation support services* are engagements involving pending

or potential formal legal proceedings before a "trier of fact" in connection with the resolution of a dispute between two or more parties, for example, in circumstances where an accountant acts as expert witness. This exception is provided because, among other things, the accountant's work in such proceedings is ordinarily subject to detailed analysis and challenge by each party to the dispute. This exception does not apply, however, if the prospective financial statements are for use by third parties who, under the rules of the proceedings, do not have the opportunity for such analysis and challenge. For example, creditors may not have such opportunities when prospective financial statements are submitted to them to secure their agreement to a plan of reorganization.

.54 The statement generally deals with the CPA as a reviewer of prospective financial statements made by a client and excludes pro forma statements. In litigation services, the CPA frequently prepares assumptions for pro forma financial statements. In these cases, the CPA is not reviewing the assumptions of someone else, but is responsible for the reasonableness of the assumptions. The CPA uses experience, judgment, and analytical abilities to establish assumptions for the pro forma financial statements. The CPA's opinion is probably the only evidence on pro forma damages statements that the trier of fact is interested in hearing. Although not binding, paragraphs 9 through 11 of appendix C in *Financial Forecasts and Projections* provide excellent guidelines dealing with the CPA's consideration of assumptions when preparing a pro forma financial statement.[2]

.55 CPAs who are not qualified by experience to make a particular assumption can rely on another expert or on the party they are representing to make the assumption. Their pro forma financial statements will then be based in part on the assumptions of others. Typically, these other people would testify about the assumptions they have provided.

.56 Understanding the bases for all the assumptions included in a damages study usually requires taking the deposition of the expert preparing the pro forma analysis. No standard of disclosure for assumptions in a lost-profits damages study exists, nor can one be formulated. Different experts, in consultation with attorneys and clients, will often vary in the extent that they explain the assumptions accompanying their pro forma financial statements used to calculate lost profits.

.57 **Preparing But-For Lost-Profits Models.** A damages model represents the expected financial performance of the plaintiff *but for* the defendant's alleged violations. The model usually shows the difference between what actually happened and what would have happened except for the defendant's allegedly improper conduct. The model may also take the form of an incremental calculation, which ignores what actually happened and simply focuses on the

[2] See Statement on Standards for Accountants' Services on Prospective Financial Information, *Financial Forecasts and Projections* (New York: AICPA, 1985). The *Guide for Prospective Financial Statements* (New York: AICPA, 1986) also contains useful guidelines dealing with the CPA's consideration of assumptions when preparing pro forma financial statements.

profitability of additional sales that would have occurred had the defendant not interfered as the plaintiff claims it did.

.58 A damages model is simply the framework used to quantify the plaintiff's damages, given the assumptions underlying the damages study. The model can be prepared either manually or with a computer. Computer modeling gives the CPA a greater range of sophisticated approaches to consider before choosing a final approach in calculating damages. Microcomputer software permits consideration of econometric and statistical approaches to calculating damages cost-effectively. Financial modeling languages, once available only through expensive time-sharing services, are now also available for microcomputers.

.59 Spreadsheet software is extremely useful in damages-claim modeling. The ability to change assumptions and recalculate the model quickly and inexpensively is a tremendous advantage over manually created models. The sensitivity of the damages to changes in assumptions can be easily tested, along with the reasonableness of the assumptions, given the end result. (Of course, the opposing party may rightfully query the CPA about each run or analysis prepared for the study.)

.60 A spreadsheet program's logic must be understood in order to understand the model it generates. The logic consists of the mathematical relationships among the data that are put into the cells of the spreadsheet. Therefore, the defendant needs to obtain the program's logic description during discovery.

Expert Opinion

.61 To testify at trial an expert witness must be *qualified* as an expert in the particular field that will be the subject of testimony. Qualification consists of establishing the witness's expertise in a particular field. To qualify a witness, the attorney who has called the expert asks a series of questions about such matters as academic degrees, academic honors, professional licenses, positions held, publications, speeches, membership and positions in professional societies, previous experience, and other cases in which the witness provided testimony.

.62 CPAs are commonly used as experts in proving damages.[3] A CPA may be an expert in a particular industry based on the types of clients served. The CPA may also be an expert in the application of certain accounting, financial, statistical, or econometric techniques relevant to issues in a case.

.63 The opposing side may challenge the expertise of a particular witness. In such a case, the opposing attorney may ask to examine the witness under *voir dire* at the outset of direct testimony, to determine expertise or lack of it. After completing the questioning, the opposing attorney may move to have the witness designated as not qualified to express an expert opinion.

[3] For citations of legal cases that have so held, see Robert L. Dunn, *Recovery of Damages for Lost Profits,* 3d ed. (Tiburon, Calif.: Lawpress Corp., 1987), p. 343.

If the opposing attorney succeeds, the judge will not permit the potential expert to testify. However, if the CPA presenting damages testimony has practiced for several years and has done professional work, it would be extremely unusual for such testimony to be excluded based on the CPA's lack of expertise.

.64 Under federal rules of evidence, an expert can testify about the *ultimate issues* of a case, which are issues on which the trier of fact must make a decision. Guilt or innocence, the cause of damages, and the amount of damages are all ultimate issues. Although it is the responsibility of the trier of fact to make the decisions on these issues, an expert witness can give an opinion on them. This means a credible expert witness may have a major impact on the outcome of the litigation.

.65 Expert opinion is the opinion of the individual testifying. A CPA firm cannot testify, only an individual CPA. The opposing party has the right to cross-examine the expert under oath. Obviously, a CPA firm cannot be cross-examined; only a member of the firm can be cross-examined.

Use of Staff

.66 A CPA who testifies from a report needs to supervise and control the preparation of the report. Preparation includes accumulating and analyzing the data, and drafting the report. This supervision is important because unless the work is performed under the CPA's direction and control, there may be a challenge to the admissibility of the report. If the CPA does not oversee the work, someone else may have to testify about the methods and data sources used in order for the evidence to survive a hearsay objection.

Presentation of Results

.67 **Oral Testimony by Expert Witnesses.** In most litigation services engagements, experts present results to the trier of fact as testimony covering findings, conclusions, and opinions. Most commonly, testimony is oral and consists of answers to questions asked by the attorney who retained the CPA. These questions and answers are known as direct examination, which is slow and deliberate and normally takes many pages of a transcript to complete.

.68 After the conclusion of direct examination, an attorney representing the other party examines the CPA by asking questions that must be answered. This is known as cross-examination. The next phase, redirect, follows cross-examination. The attorney who offered the CPA as an expert has the right to ask more questions limited to issues raised during cross examination. Finally, in the phase known as re-cross, the opposing party's attorney has the right to ask questions limited to issues raised during redirect. The expert is under oath during all these phases.

.69 The expert witness may introduce exhibits to support or illustrate the opinion during testimony. The expert witness also gives opinions about facts or hypotheses. Neither the oral testimony nor the exhibits need to be documented in the form of a formal written report.

.70 **Written Reports by Expert Witnesses.** Testimony, especially that of experts, may be written at times as a result of stipulation by the parties or a judge's request for trial efficiency. Under these circumstances, the CPA may render testimony as a written report, which can vary from only a written statement of the expert's opinion to an extensive report with detailed assumptions and supporting schedules showing all computations. For example, the sample lost-profits damages study in appendix 70/B could be an exhibit supporting the expert's opinion, or it could be submitted without testimony as the expert's conclusions.

.71 Another variation occurs when there is no direct oral examination. Instead of an oral direct examination, the expert submits the direct testimony in writing, which is read to the judge or jury, and only the cross-examination, redirect, and re-cross are oral. This method speeds up the presentation of expert testimony, although it may not be as easy for the trier of fact to comprehend.

.72 There are no specific guidelines for reports in litigation services engagements, because the form and content depend on the facts in the case and the preferences of the lawyer retaining the CPA. However, the CPA would insist that conclusions and analyses not be misrepresented by the form or content of the presentation.

.73 **Written or Oral Reports by Consultants.** The CPA who is engaged as a consultant to the attorney normally produces either written or oral reports. The written reports can take any form desired by the attorney. Common written forms include questions for interrogatories, a list of documents to be produced (see exhibit 70B-2 in appendix 70/B), questions for depositions or cross-examination (see exhibit 70B-3), and handwritten notes to an attorney during the deposition of an opposing party's witness. Common oral forms include a discussion of the CPA's findings or conclusions related to sufficiency of evidence and the CPA's opinions about appropriate strategies to take in settling litigation.

.74 Some lawyers do not want a written report, even when the CPA's work is protected by the attorney work-product privilege. There are two reasons for this. First, the attorney work-product privilege is not absolute. By showing undue hardship, the opposing party can obtain a judge's order exempting an expert's work from the attorney work-product privilege. Therefore, there is a slight chance that a written report, which may include possible negative implications for a client's case, may be turned over to the opposing party. A risk-averse attorney will avoid even this slight risk.

.75 Second, the attorney may later designate the CPA who was previously retained as a consultant as an expert witness. The attorney may then be forced to turn over the CPA's report to the other side because it may no longer have the protection of the attorney work-product privilege. However, the CPA, having prepared the report under that privilege and assuming it was confidential, may have included statements that are adverse to the client's interests.

.76 **Exhibits.** A CPA's testimony about damages usually requires explaining a great many numbers and mathematical formulas along with accounting and economic theories. Most triers of fact, especially juries, consider this type of testimony extremely dry and difficult to comprehend. Therefore, whenever possible, the CPA should use diagrams or other visual aids rather than a table or schedule of numbers to explain a difficult concept or relationship.

.77 Three sample exhibits prepared for the illustrative lost-profits damages study are provided in appendix 70/B. Exhibit 70B-1.7, which the plaintiff may want to introduce, is a bar chart showing the expected pattern of pretax profit to be received over the twelve years of the damages study.

.78 Exhibit 70B-1.8, a bar chart that presents yearly cash flows assumed in the study, shows a *cumulative negative* cash flow for the first six years. A defendant may want to use such a chart to raise doubts about the plaintiff's case in the mind of the trier of fact. For example, the defendant may suggest that the plaintiff could not have survived long enough to realize the positive cash flows generated in years 7 through 12. Exhibit 70B-1.8 also shows that all the profits in the damages study are still in the future. They are thus arguably more speculative and, of course, the amounts represented must be discounted to present value.

.79 Exhibit 70B-1.9 is a pie chart showing the relationship of a various major cost elements to total sales. Exhibits 70B-1.7, 70B-1.8, and 70B-1.9 are the kind of graphic material that either a plaintiff or a defendant might use.

.80 **Affidavits and Declarations.** In some instances testimony may be given either by affidavit or declaration. An affidavit is a written statement made under oath. It is normally used during trial. A declaration is a witness's unsworn written statement, but it is normally accompanied by another statement that it would be the same if made under oath. Because a declaration is unsworn, it is normally used to support pretrial motions.

.81 **Workpapers.** Workpapers supporting the CPA's opinion may or may not be introduced as exhibits at trial. Normally they are not, because the trier of fact usually has neither the inclination nor the ability to review the CPA's work papers. However, if the work papers support opinions contrary to those offered by the CPA or if the opposing party discovers errors and inconsistencies in them, the opposing party may introduce the work papers as evidence of the carelessness of its opponent's CPA or the fallacy of the CPA's conclusions.

.82 To protect against such use of work papers, the CPA carefully controls the content of the work papers and avoids collecting any irrelevant materials. All work papers supporting the expert's opinion should be retained and properly organized so that the expert can find the source materials that are the bases for the opinion. The CPA cannot remove anything after receiving a subpoena. Any relevant documents prepared by the CPA, whether or not they support the CPA's opinion, must be produced in response to a subpoena. If the work papers are introduced into evidence, the CPA loses custody of them because they become the property of the court.

Effective Testimony Techniques

.83 When testifying, the CPA strives to be listened to and believed and to present an opinion that is accepted by the judge and jury. The accomplishment of these aims requires adequate preparation, including rehearsal of both direct testimony and likely cross-examination. An advance visit to the courtroom to plan the placement of visual aids generally improves the CPA's comfort level.

.84 **Demeanor in or Near the Courtroom.** The CPA should minimize contact with the lawyers while the jury is present. The CPA should also be guarded in conversations anywhere in or near the courthouse, particularly in the presence of jurors. While in the courtroom, the CPA should strive to maximize the confidence of the judge and jury by dressing conservatively and by maintaining a professional appearance. On the witness stand, the CPA should be neither unduly humble nor pompously arrogant.

.85 **Direct Testimony.** The CPA's aim during direct testimony is to deliver a professional opinion clearly, concisely, and believably. This result is best achieved by crisp, concise testimony delivered in brief statements rather than in a long lecture. By maintaining eye contact with the judge and jury, the CPA increases the likelihood that his or her testimony will be absorbed. The CPA should avoid jargon, but speak in simple language using examples and analogies that are familiar to the lay persons on the jury. The use of visual aids such as flip charts or a blackboard not only makes the CPA's testimony more understandable, but also permits the CPA to move about the courtroom (subject to the judge's permission), which helps to hold the jury's attention. The CPA should devise examples before taking the witness stand because examples improvised on the spur of the moment are frequently ill-constructed.

.86 The CPA should bring only essential documents to the witness stand because opposing counsel has the right to inspect anything to which the CPA refers during testimony. If the CPA expects to move about the courtroom during direct testimony, such logistical questions as the manner in which the CPA may refer to notes require advance planning.

.87 **Structure of Typical Direct Testimony.** A CPA's direct testimony normally commences with responses to a series of questions concerning professional qualifications. Occasionally, particularly in lawsuits tried without a jury, the CPA's qualifications are introduced in a written resume of professional background. Laying a foundation of the CPA's qualifications is essential, since opinion testimony can only be presented by a witness who has satisfied the judge as to his or her special knowledge or training. During or after testimony concerning the CPA's qualifications, opposing counsel often interrupts the direct testimony to challenge the CPA's qualifications or perhaps to limit the scope of the CPA's expert testimony. These questions by opposing counsel, called *voir dire,* are sometimes followed by a plea to the judge that the CPA is not qualified to offer expert testimony or that some of the subjects expected to be included in direct testimony are outside the CPA's area of expertise.

.88 Assuming that the judge allows the CPA to proceed, the CPA will normally then be asked to describe the tasks undertaken and the methods used to accomplish them. Most attorneys then bring up the CPA's fee arrangement including the hourly rate charged as well as the total fees received. Finally, the CPA is asked to offer opinions on the subjects scrutinized and the facts, analyses, or authorities on which those opinions are based.

.89 **Cross-examination.** The intent of cross-examination by opposing counsel is to discredit witnesses and diminish the impact of their testimony. While the questions during direct testimony will solicit the CPA's opinions and permit an expansion upon the CPA's views, questions by a cross-examiner will be much more restrictive. Opposing counsel will try to encourage contradiction, limit the breadth of the testimony's application, diminish the scope of the CPA's expertise, and generally rattle the witness.

.90 In order to minimize the effects of the cross-examiner's technique, the CPA should be sure to understand each question. If not, the CPA should ask to have the question repeated. The CPA should then respond slowly and deliberately. If the cross-examiner requests a yes or no answer, the CPA may refuse if such an answer seems to be impossible. The CPA should not argue with the cross-examiner but, instead, should maintain the appearance of a disinterested expert rather than an advocate.

.91 **Visual Aids.** Most matters about which a CPA will testify concern numbers. Numeric concepts are difficult to grasp when presented orally. Consequently, the CPA should normally augment testimony with some sort of visual depiction of the data. Media normally used to portray testimony include blackboards, overhead projectors, flip charts, photographic blowups, slide projectors, and laser disk with television. The CPA should seek to use those media that permit the maintenance of eye contact with the judge and jury and preferably do not require dimming of lights. The data portrayed should be clearly discernible by the judge and jury. The exhibit must be readable and understandable from a distance so the CPA should always consider using less information than more on a particular exhibit.

70/140 CONCLUSION

.01 Regardless of its form, the CPA's testimony communicates findings, conclusions, and opinions to the trier of fact in concise and simple terms. The effective expert witness will convince the trier of fact through intelligence, experience, objectivity, and sincerity, keeping in mind the need to explain technical terms. The CPA who possesses and uses these attributes in a litigation services engagement will be a credit to the client and the profession.

.02 These same qualities are also necessary when the CPA serves as a consultant to the lawyer. The lawyer needs someone to use as a sounding board for ideas and understanding of the facts and strategies. The CPA does not just echo the positions of the lawyer but needs to give sound advice from an independent perspective.

APPENDIX 70/A

ILLUSTRATIVE MATERIALS

Exhibit 70A-1

Sample Engagement Letter 1

CPA & Company
Anytown, USA

September 4, 19XX

John A. Smith, Esq.
Smith, Smith & Jones
100 Courthouse Way
Anytown, USA

Dear Mr. Smith:

You have asked me to read and analyze certain documents relating to a lawsuit brought against your client, XYZ Company. You have also asked that I be available to testify at the time of trial should you decide to use me as an expert witness. Any written reports or other documents that I prepare are to be used only for the purpose of this litigation and may not be published or used for any other purpose without my written consent.

Irrespective of the outcome of this matter, I understand that you will compensate me at my standard hourly rate (currently $___) for all time spent, including travel, whether or not the engagement is completed or its results are used. You will also compensate me for any out-of-pocket costs that I may incur. I will submit bills monthly, which are due and payable on receipt and in all events prior to the commencement of my testimony.

[*Optional sentence: Before commencing work on this engagement, I would like a retainer of $___ which will be applied to final billing on this engagement or refunded to the extent that it exceeds such billing.*]

Any controversy or claim arising out of or relating to this contract, or the breach thereof, shall be settled by binding arbitration, in [*insert desired venue*], in accordance with the Commercial Arbitration Rules of the American Arbitration Association, and judgement upon the award rendered by the arbitrator may be entered in any court having jurisdiction thereof.

I look forward to assisting you in this matter and hope that my services will be beneficial. If you approve of the engagement terms described above, I would appreciate your signing the enclosed copy of this letter and returning it to me.

Sincerely yours,

John Jones, CPA

Accepted:

____
Name of attorney's firm

Exhibit 70A-2

Sample Engagement Letter 2

[Optional additions are bracketed]

CPA & Company
Anytown, USA

September 4, 19XX

John A. Smith, Esq.
Smith, Smith & Jones
100 Courthouse Way
Anytown, USA

Dear Mr. Smith:

The purpose of this letter is to summarize our understanding of the assistance that CPA & Company will provide to you and your client, XYZ, Inc. in the matter of XYZ, Inc. v. ABC Corporation et al. before the Superior Court of the State of California, County of Los Angeles, which matter is Case. No. XXXXXX.

You have requested that we assist you with analysis and consultation with regard to the XYZ litigation matter as you may direct. I would also be prepared to provide testimony at deposition and trial should you decide that to be appropriate.

I will be responsible for the performance of our engagement with you and your client. My hourly billing rate is $XXX. From time to time, if necessary, other professionals may also assist when appropriate and needed. The hourly rates for our professionals are in the following ranges: Senior managers and managers — $XXX to $XXX; senior accountants and senior consultants — $XXX to $XXX; and consultants — $XXX to $XXX. [*Our hourly rates are subject to change from time to time. We will advise you immediately if the rates are being adjusted by our firm.*]

Fees for our services are based upon the actual time expended on the engagement at the standard hourly rates for the individuals assigned. In addition to our professional fees, we are reimbursed at cost for any travel and out-of-pocket expenses. Bills are rendered and are payable monthly as work progresses. [*We reserve the right to defer rendering further services until payment is received on past due invoices.*]

[*Our normal practice is to obtain a retainer, and we herewith request such a retainer in the amount of $XX,XXX. This retainer is not intended to represent an estimate of the total cost of the work to be performed. The retainer will be held against the final invoice for the engagement; any unused retainer will be refunded.*]

We are certain that you recognize that it is difficult to estimate the amount of time that this engagement may require. The time involved depends upon the extent and nature of available information, as well as the developments that may occur as work progresses. It is our intention to work closely with you to structure our work so that the appropriate personnel from our staff are assigned to the various tasks in order to keep fees at a minimum.

[*Furthermore, you, your client and I, all agree that any dispute over fees charged by our firm in this engagement will be submitted for resolution by arbitration in accordance with the rules of the American Arbitration Association. Such arbitration is limited only to the issue of fees charged and shall be binding and final. In agreeing to arbitration, we each acknowledge that in the event of a dispute over fees, each of us is giving up the right to have the dispute decided in a court of law before a judge or jury and instead are accepting the use of arbitration for resolution.*]

[*You or your law firm or the court itself will advise us (with sufficient notice) of the work to be performed by us and the requirement for appearance in court. If there is a substitution or change in the association of attorneys involved in this litigation, we reserve the right to withdraw from this engagement.*]

If the arrangements described in this letter are acceptable to you and the services outlined are in accordance with your requirements, please sign and return a copy of this letter. We look forward to working with you in this matter. If I can provide you with any additional information, please do not hesitate to call me at (555) 123-4567.

The proposed terms of this letter are subject to change if not accepted within 60 days of the date of this letter.

Very truly yours,

(Name and Title)
CPA & Company

The services described in this letter are in accordance with our requirements and are acceptable to me and my client.

Accepted:

______________________________ ______________________
John A. Smith, Esq. Date
Smith, Smith & Jones

APPENDIX 70/B

CASE STUDY: LOST-PROFITS DAMAGES STUDY FOR VENDING OPERATOR, INC. v. STATE

Background

The case of Vending Operator, Inc. v. State involves State's contract with Vending Operator to install and operate vending machines at roadside rest stops. State had developed several roadside rest stops along its intrastate and interstate highways. As a further convenience to motorists, State decided to put vending machines at the rest stops to dispense food, drinks, and sundries. Before committing to a statewide program, State decided to try a test program that placed vending machines at five roadside rest stops for two years. State sent out a request for proposal (RFP) soliciting bids to install and operate vending machines at the five test sites.

Only one company, Vending Operator, responded to the RFP. Since Vending Operator appeared to be qualified, State awarded the contract to it. Vending Operator, to protect its investment in starting up the test program, required State to give it two consecutive options to operate vending machines at the roadside rest stops after the test period, if the test was successful. Each option period would run for five years (that is, from years 3 through 12 of the program). State agreed to this and entered into a contract with Vending Operator.

The contract stipulated that Vending Operator was to install and operate the vending machines, which would require designing and erecting buildings at each of the rest stops to house the vending machines, all at the expense of Vending Operator. State would supply the land rent-free and provide all necessary utilities.

Vending Operator was to sell items in the vending machines at the prevailing price in the given locality. State would receive a royalty of 2 percent of sales in the first year and 3 percent in the second year of the test program. If Vending Operator exercised its first five-year option after the test period, the royalty percentage would be renegotiated at that time.

Vending Operator was to provide State with monthly statements detailing the revenues and expenses of operating the five test sites. State had the right to audit these statements.

As conditions of the contract, Vending Operator was responsible for maintaining the cleanliness and safety of the area around the vending machines as well as for the timely payment of all state taxes.

At the beginning of the test period, State had ninety-one operational rest stops along its highways. Of those, forty were along intrastate highways and fifty-one were along interstate highways. During the first year of the test, two additional rest stops were completed, both along interstate highways. State had plans for building a total of 160 roadside rest stops.

This plan was being reconsidered because of State's limited funds and a lack of federal assistance, but no new plan had been submitted to the legislature at the beginning of the program. In addition, federal law prohibited the operation of vending machines along federal highways when the test was begun. However, this law was changed in the program's sixth year, thus permitting the installation of vending machines along federal highways.

Vending Operator built the five structures and installed the vending machines. But after a full year of operation, State was unhappy with Vending Operator's performance. State asserted that royalties were below the projected amount, royalty and sales tax payments were consistently late, and maintenance of the vending machines was substandard. After consulting its attorney general, State notified Vending Operator that it was not going to continue the vending machine program after the test period.

Vending Operator, which had lost money in the first year, immediately stopped operating the five test sites and filed a breach-of-contract action in the state courts. Vending Operator sued State for the lost profits projected for the twelve-year contract (the two-year test program plus both five-year options).

Both sides retained CPAs. Vending Operator asked its CPA to prepare a lost-profits damages study and testify about it at the trial. State asked its CPA to analyze the lost-profits damages study and help State's attorneys cross-examine Vending Operator's CPA at both the deposition and the trial.

Vending Operator, Inc. and the State set the following objectives for each CPA in expectation of the following benefits.

Objectives

For the CPA Retained as an Expert Witness by the Plaintiff (Vending Operator)

1. To prepare a lost-profits damages study for Vending Operator.

2. To testify about lost-profits damages as an expert witness at the deposition.

3. To testify about lost-profits damages as an expert witness at trial.

For the CPA Retained as a Consultant by the Defendant (State)

1. To analyze the weaknesses and errors in the lost-profits damages study prepared by the plaintiff's expert.

2. To prepare deposition questions to challenge the plaintiff's damages expert by pointing out errors and weaknesses in the lost-profits damages study.

3. To prepare cross-examination questions to challenge the expertise of plaintiff's damages expert and to point out errors and weaknesses in the lost profits damages study.

Expected Benefits

For the CPA Retained as an Expert Witness by the Plaintiff (Vending Operator)

1. To obtain a practical settlement by convincing the defendant, the defendant's attorney, and the defendant's experts that the damages computed for plaintiff were caused by the defendant's actions and that the amount computed is reasonable. (The more convincing the plaintiff's expert can be, the easier it may be to obtain a pretrial settlement satisfactory to the plaintiff.)

2. If the litigation is not settled before trial, to persuade the trier of fact that damages computed for the plaintiff were caused by the defendant's action, that the amount computed is reasonable, and that it is based on the best evidence available.

For the CPA Retained as a Consultant the Defendant (State)

1. To obtain a pretrial settlement by convincing the plaintiff, the plaintiff's attorney, and the plaintiff's experts that the damages computed for the plaintiff were either not caused by the defendant's actions or that the amount computed is overstated.

2. If the litigation is not settled before trial, to persuade the trier of fact that the damages computed for the plaintiff are speculative and cannot serve as the basis for awarding damages to the plaintiff.

Factors Analyzed to Produce a Lost-Profits Damages Study

Market Definition

Geographic definition. The market in this case can be broadly defined as motorists who purchase food, drinks, and sundry items while traveling in State. Based on the terms of the contract, the market could be narrowed geographically to all existing and potential highway rest areas in State during the term specified.

Vending Operator desires a broader definition of the geographic market than the physical boundaries of State. It argues that if the test period had been successful, profitable vending operations would have been started at roadside rest areas in other states. State wants a narrow geographic definition of the market that includes only existing highway rest areas in State. It explains that any proposed new locations are too speculative to be a basis for computing lost profits.

Competitive definition. Vending Operator claims it has 100 percent of the market, a head start over any other potential competitor, and a legal monopoly from State because the contract assumes Vending Operator has the exclusive right to install vending machines at highway rest areas in State during the term specified.

State argues that it did not have the legal right to grant a monopoly to Vending Operator even if it could be assumed from the contract, because other vending operators in State would compete for available highway rest areas if the program proved profitable. State also wants to define the market broadly in the context of supply available to meet the motoring public's demand for food and sundry items by including competition from vending machines at gas stations, fast-food outlets, and other food sources not located along State's highways.

Financial Records

Vending Operator has only one year of actual operating experience. The first year's financial statements were compiled by a CPA. No statement of changes in financial position was prepared. The CPAs of both Vending Operator and State will evaluate Vending Operator's accounting records to ensure that no other relevant violations of GAAP occurred.

Actual Losses

Vending Operator, in business for only one year, claims that State's actions caused it to lose more money than it should have in this one year. It is attempting to prove this incremental loss as additional damages. In exhibit 70B-1, the damages study, the total actual loss in year 1 is added to the computation of damages. This combining of the amounts is based on the assumption that Vending Operator would have broken even in year 1 but-for State's action.

The CPA retained by Vending Operator asked about Vending Operator's expectations for the profitability of first-year operations in any projections made before the start-up of the business. To determine if any of the factors cited as contributors to a loss actually caused either a decline in revenue or an increase in any costs, the CPA analyzed Vending Operator's first year revenues and costs in relation to the factors. The CPA retained by State made the same determinations about causation and formed an opinion on the reasonableness of Vending Operator's allegation about any loss in year 1.

Profit and Cost Relationships

Vending Operator's CPA used the principal assumptions listed in exhibits 70B-1.1 and 70B-1.2 to prepare the rest of the damages study. The CPA then modeled sales on Vending Operator's actual sales history in its one year of operation and modeled each of the twenty-four expense categories in the income statement, including cost of sales, separately. (The actual income statement for year 1 and the projected income statements for years 2 through 12 are included in exhibit 70B-1.2.) Ten categories were modeled on Vending Operators's actual experience in year 1. These categories are depreciation, dues and subscriptions, outside services, rent, repairs and maintenance, security, taxes and licenses, payroll taxes, sales taxes, and utilities. The remaining fourteen expense categories were modeled independently of Vending Operator's actual experience because the CPA believed that the company's actual experience did not properly indicate how these costs would behave in the but-for world.

State's CPA analyzed the assumptions and relationships developed by Vending Operator's expert and determined whether they are reasonable. State's CPA was not asked to recalculate the damages based on reasonable assumptions and relationships. Instead, the CPA was instructed to point out any unreasonable assumptions in Vending Operator's damages study so that the judge and jury would conclude that Vending Operator had not proved the alleged damages. State's CPA also prepared a list of questions for the deposition of Vending Operator's expert. These questions (exhibit 70B-3 in appendix 70/B) sought additional information about the reasoning for some of the assumptions or pointed out errors or weak assumptions.

Pro Forma Financial Statements

The sample damages study covers both past and future years. The trial took place in year 7 of the damages study. The CPA made sure that assumptions used in the past years were consistent with actual events that the defendant's violations had no impact on, for example, the general rate of inflation, interest rates, or the effects of a recession.

The assumptions necessary to generate the pro forma income and cash flow statements in exhibits 70B-1.2 and 70B-1.3 are contained in exhibits 70B-1.1, 70B-1.4, 70B-1.5, and 70B-1.6. The assumptions are both explicitly stated in the notes in exhibits 70B-1.1 and 70B-1.2 and are implicit in the schedules in exhibits 70B-1.4, 70B-1.5, and 70B-1.6. The explicit assumptions include the sales per unit and their increases from year to year, the cost of sales, and the number and cost of trucks needed in each year of the projection. Implicit assumptions include the amount of borrowing necessary to finance the business, the rate of payback on the borrowed money, the method of calculating interest expense, and the method of handling investment tax credit.

But-For Lost-Profits Model

The CPA prepared the sample damages study by using a popular spreadsheet program available for most microcomputers. The program calculated Vending Operator's projected income statement in exhibit 70B-1.2 (as well as the data in exhibits 70B-1.3, 70B-1.4, 70B-1.5, and 70B-1.6) by using the assumptions in exhibits 70B-1.1 and 70B-1.2. For example, sales in year 1, listed in exhibit 70B-1.2 totaled $272,100. This figure is the product of the number of stations, 5, multiplied by the sales per unit, $54,420, which are both assumptions in the notes to these exhibits. The logic that multiplies these assumptions exists in the cell in exhibit 70B-1.2 beneath the number $272,100.

Exhibit 70B-1

Sample Lost-Profits Damages Study

Exhibit 70B-1.1

Lost-Profits Model Prepared by Vending Operator's Expert

Assumptions	Year 1[1]	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Number of stations	5	20	50	50	70	90	100	120	140	160	160
Cost per unit [2]	$16,000	$34,000	$36,040	$38,202	$40,494	$42,494	$45,499	$48,229	$51,123	$54,190	$57,441
Replacement units,											15
Cost of	$ 8,000	$17,000	$18,000	$19,101	$20,247	$21,462	$22,750	$24,115	$25,562	$27,096	$28,722
Loan-interest rate	12.00%	14.00%	16.00%	18.00%	16.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%
Trucks, number of[3]	3	3	4	4	4	5	5	7	8	10	10
Replacement/new	3		1		3	1	1	2	3	3	1
Purchase price	$ 4,000	$10,000	$10,600	$11,236	$11,910	$12,625	$13,383	$14,186	$15,037	$15,939	$16,895
Operating cost	$ 1,500	$ 1,590	$ 1,685	$ 1,786	$1,893	$ 2,007	$ 2,127	$ 2,255	$ 2,390	$ 2,533	$ 2,685
Sales per unit	$54,420	$57,685	$61,146	$64,815	$68,704	$72,826	$77,196	$81,827	86,737	$91,941	$97,457
Cost of sales	67.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%
Insurance	$ 5,377	$ 7,500	$10,000	$12,500	$15,000	$17,500	$20,000	$22,500	$25,000	$27,500	$30,000
Repairs per unit	$ 450	$ 477	$ 506	$ 536	$ 568	$ 602	$ 638	$ 676	$ 717	$ 760	$ 806
Taxes											
Payroll	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%
Sales	4.00%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%

Notes

1. Year 1 shows actual operating results for vending operator's five test sites.
2. The units are estimated to cost $34,000 (increasing by 6 percent per year) for both machines and buildings. For year 1 units were rented. The buildings are estimated to last twenty years and the machines ten years.
   The forecast assumes the opening of ten to twenty units per year.
3. The number of trucks required are one for each repairman per office and one route truck for each twenty-five locations. The trucks are estimated to last five years with an average cost of $10,000, increasing by 6 percent per year for additional trucks.

Exhibit 70B-1.2

Vending Operator's Pro Forma Income Statement

Assumptions	Year 1[1]	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Total
Sales[1]	$272,100	$721,065	$1,834,389	$2,916,679	$4,122,240	$5,826,099	$7,333.602	$9,001,031	$11,275,838	$13,791,217	$15,593,269	$16,528,865	$89,216,394
Cost of sales[2]	182,307	338,901	862,163	1,370,839	1,937,453	2,738,267	3,446,793	4,230,485	5,299,644	6,481,872	7,328,836	7,768,567	41,986,127
Gross profit	$ 89,793	$382,164	$ 972,226	$1,545,840	$2,184,787	$3,087,832	$3,886,809	$4,770,546	$ 5,976,194	$ 7,309,345	$ 8,264,433	$ 8,760,298	$47,230,267
Other expenses													
Salaries[3]	$ 72,049	$153,064	$ 258,091	$ 384,936	$ 507,011	$ 685,171	$ 958,635	$1,220,797	$ 1,449,924	$ 1,681,032	$ 1,847,089	$ 1,957,905	$11,175,695
Commission to State[4]	19,047	50,475	128,407	204,168	288,557	407,827	513,352	630,072	789,309	965,385	1,091,529	1,157,021	6,245,148
Accounting	9,481	5,000	5,000	10,000	10,000	10,000	10,000	10,000	15,000	15,900	16,854	17,865	135,100
Advertising	17	0	0	0	0	0	0	0	0	0	0	0	17
Truck expense[6]	11,631	4,770	6,742	7,146	7,575	10,037	10,639	15,788	19,126	25,342	26,863	28,474	174,133
Burglary	3,722	0	0	0	0	0	0	0	0	0	0	0	3,722
Depreciation[6]	24,388	122,000	269,693	342,098	515,986	672,358	665,818	712,124	851,041	944,399	855,040	882,721	6,857,667
Dues & Subscriptions	114	121	128	136	272	288	305	600	636	674	715	757	4,745
Equipment rentals	3,148	1,000	1,060	1,124	1,191	1,262	1,338	1,419	1,504	1,594	1,689	1,791	18,120
Insurance	5,377	7,500	10,000	12,500	15,000	17,500	20,000	22,500	25,000	27,500	30,000	31,800	224,677
Interest[7]	8,800	84,000	174,400	192,600	197,600	165,900	95,900	46,900	0	0	0	0	966,100
Office expense	1,968	500	500	1,000	1,100	1,150	1,600	1,696	1,798	1,906	2,020	2,141	17,379
Outside services	1,558	1,651	1,751	1,856	1,967	2,085	2,210	2,343	2,483	2,632	2,790	2,958	26,283
Rent[8]	3,300	3,498	3,708	7,000	7,420	7,865	12,500	13,250	14,045	14,888	15,781	16,728	119,983
Repair & maintenance[9]	3,603	9,540	20,225	26,798	39,768	54,190	63,833	81,196	100,412	121,642	128,941	136,677	786,835
Security[10]	350	1,113	1,573	834	1,767	1,874	993	2,105	2,231	2,365	0	0	15,183
Shop supplies	1,456	1,000	1,060	1,124	1,191	1,262	1,338	1,419	1,504	1,594	1,689	1,791	16,428
Taxes & licenses	1,011	1,072	1,136	1,204	1,276	1,353	1,434	1,520	1,611	1,708	1,811	1,919	17,056
Taxes, payroll[11]	9,006	19,133	32,261	48,117	63,376	85,646	119,829	152,600	181,241	210,129	230,885	244,738	1,396,962
Taxes, sales[12]	12,245	32,448	82,548	131,251	185,501	262,174	330,012	405,046	507,413	620,605	701,697	743,799	4,014,738
Telephone	4,552	2,000	2,120	2,247	4,400	4,664	4,944	9,000	9,540	10,112	10,719	11,362	75,661
Utilities	625	663	702	744	789	836	887	940	996	1,056	1,119	1,186	10,544
Miscellaneous	2,174	500	530	562	596	631	669	709	752	797	845	895	9,660
Total expenses	$184,396	$501,047	$1,001,635	$1,377,443	$1,852,343	$2,394,083	$2,816,238	$3,332,023	$ 3,975,564	$ 4,651,260	$ 4,968,068	$ 5,242,530	$32,296,630
Net income (loss) before income taxes	(94,603)	(118,886)	(29,409)	168,397	332,444	693,749	1,070,571	1,438,523	2,000,630	2,658,085	3,296,365	3,517,768	14,933,637
Income taxes (assume 50%)	(47,302)	(59,441)	(14,705)	84,199	166,222	346,875	535,286	719,262	1,000,315	1,329,043	1,648,183	1,758,884	7,466,820
	($47,301)	($59,441)	($ 14,704)	$ 84,198	$ 166,222	$ 346,874	$ 535,285	$ 719,261	$ 1,000,315	$ 1,329,042	$ 1,648,182	$ 1,758,884	$ 7,466,817

(continued)

Exhibit 70B-1.2 (*continued*)

Notes

1. Sales are based on $54,420 per unit per year, increasing by 6 percent per year.
2. Cost of sales are based on 47 percent of sales (national average).
3. Salaries are based on the table in exhibit 70B-1.5 with yearly increases of 6 percent. After year 1 new employees are assumed to be hired at midyear.
4. Commissions are 7 percent of sales (based on the contract with State).
5. Truck expense is assumed at $1,500 per year per truck with 6 percent increases per year.
6. Depreciation is computed using the straight-line method.
7. Interest is computed on the funds necessary for operations at an interest rate of 12 percent to 18 percent.
8. Rent is computed at $3,300 per year, increasing by 6 percent per year. Two additional offices are projected to be opened, one in year 4 (at a reduced rate in the first year) and one in year 7.
9. Repairs are based on $450 per unit per year, increasing by 6 percent per year.
10. Security is a one-time charge for the units and is estimated to be $70 per unit, increasing by 6 percent per year for additions.
11. Payroll taxes are based on 12.5 percent salaries.
12. Sales tax is based on 4.5 percent of sales.

Prepared by CPA, To Be Used Solely With Testimony In This Case

Exhibit 70B-1.3

Vending Operator's Pro Forma Cash Flow by Year

Assumptions	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Beginning cash balance	$ 0	$ 34,087	$ 35,645	$ 48,234	$ 71,506	$ 72,093	$169,217	$400,941	$ 488,363	$ 936,142	$1,941,474	$3,995,984
Net income	(47,301)	(59,442)	(14,704)	84,198	166,222	346,875	535,285	719,261	1,000,315	1,329,042	1,648,182	1,758,884
Less cash expenditures	93,000	511,000	732,400	383,024	846,621	872,109	469,379	993,963	1,068,577	1,268,109	448,712	645,705
Items not affecting cash flow:												
depreciation	24,388	122,000	269,693	342,098	515,986	672,358	665,818	712,124	851,041	944,399	855,040	882,721
Cash flow from operations	($115,913)	($414,355)	($441,766)	$ 91,506	$ 92,907	$219,217	$900,941	$838,363	$1,271,142	$1,941,474	$3,995,984	$5,991,884
Funds borrowed	150,000	450,000	490,000	0	165,000	0	0	0	0	0	0	0
Loan repayment	0	0	0	20,000	0	50,000	500,000	350,000	335,000	0	0	0
Net cash flow	$ 34,087	$ 35,645	$ 48,234	$ 71,506	$ 72,093	$169,217	$400,941	$488,363	$ 936,142	$1,941,474	$3,995,984	$5,991,884

Exhibit 70B-1.4

Vending Operator's Summary of Interest Based on New Debt Amounts

Assumptions	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Beginning loan balance	$ 0	$150,000	$ 600,000	$1,090,000	$1,070,000	$1,235,000	$1,185,000	$685,000	$335,000	$ 0	$ 0	$ 0
Payments on loan	$ 0	$ 0	$ 0	$ 20,000	$ 0	$ 50,000	$ 500,000	$350,000	$335,000	$ 0	$ 0	$ 0
Additional funds needed to finance operations	$150,000	$450,000	$ 490,000	$ 0	$ 165,000	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Total debt	$150,000	$600,000	$1,090,000	$1,070,000	$1,235,000	$1,185,000	$ 685,000	$335,000	$ 0	$ 0	$ 0	$ 0
Interest rate	12.00%	14.00%	16.00%	18.00%	16.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%
Total interest expense	$ 18,000	$ 84,000	$ 174,400	$ 192,600	$ 197,600	$ 165,900	$ 95,900	$ 46,900	$ 0	$ 0	$ 0	$ 0

Exhibit 70B-1.5

Summary of Required Personnel and Salaries

Assumptions	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Types of employees												
General manager						1	1	1	1	1	1	1
Manager	1	1	1	2	2	2	3	3	3	3	3	3
Drivers	2	2	3	3	3	4	5	6	7	7	7	7
Repairman	1	1	1	2	2	2	3	3	3	3	3	3
Services personnel		14	28	34	47	63	70	84	98	112	112	112
Buyer							1	1	1	1	1	1
Bookkeeper							1	1	1	1	1	1
Secretary							1	1	1	1	1	1
Annual salary												
General manager	$45,000	$ 47,700	$ 50,562	$ 53,596	$ 56,812	$ 60,221	$ 63,834	$ 67,664	$ 71,724	$ 76,027	$ 80,589	$ 85,424
Manager	30,000	31,800	33,708	35,730	37,874	40,147	42,556	45,109	47,815	50,684	53,725	56,949
Driver	25,000	26,500	28,090	29,775	31,562	33,456	35,463	37,591	39,846	42,237	44,771	47,457
Repairman	28,000	29,680	31,461	33,348	35,349	37,470	39,719	42,102	44,628	47,305	50,144	53,152
Services personnel	5,200	5,512	5,843	6,193	6,565	6,959	7,376	7,819	8,288	8,785	9,312	9,871
Buyer	23,000	24,380	25,843	27,393	29,037	30,779	32,626	34,583	36,659	38,858	41,189	43,661
Bookkeeper	16,000	16,960	17,978	19,056	20,200	21,412	22,696	24,058	25,502	27,032	28,654	30,373
Secretary	16,000	16,960	17,978	19,056	20,200	21,412	22,696	24,058	25,502	27,032	28,654	30,373
Total annual salary	$69,000	$191,648	$313,035	$438,056	$549,682	$787,680	$1,082,330	$1,294,325	$1,527,863	$1,742,529	$1,847,080	$1,957,905
Less 1/2 first year		(38,584)	(54,944)	(53,119)	(42,672)	(102,508)	(123,695)	(73,528)	(77,939)	(61,497)	0	0
	$72,049	$153,064	$258,091	$384,936	$507,011	$685,171	$ 958,635	$1,220,797	$1,449,924	$1,681,032	$1,847,080	$1,957,905

Exhibit 70B-1.6

Vending Operator's Summary of Asset Additions and Depreciation

Assumptions	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Asset additions												
Trucks	$12,000	$ 0	$ 10,600	$ 0	$ 35,730	$ 12,625	$ 13,382	$ 28,370	$ 45,108	$ 47,814	$ 16,895	$ 35,816
Units	80,000	510,000	720,800	382,020	809,891	858,484	454,997	964,593	1,022,469	1,219,294	430,817	608,888
Miscellaneous	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total of current year's additions	93,000	511,000	732,400	383,020	846,621	872,109	469,379	993,963	1,068,578	1,268,109	448,712	645,705
Plus prior year's balance	0	93,000	604,000	1,336,400	1,719,424	2,566,045	3,438,154	3,907,533	4,901,496	5,970,074	7,238,183	7,686,895
Total cumulative assets	93,000	604,000	1,336,400	1,719,420	2,566,045	3,438,154	3,907,533	4,901,496	5,970,074	7,238,183	7,686,895	8,332,600
Depreciation of—												
Three properties	4,000	4,000	7,533	3,533	15,443	16,118	20,579	18,126	28,954	40,432	36,606	33,509
Five properties	16,000	118,000	262,160	338,565	500,543	656,240	645,239	693,998	822,087	903,967	818,434	849,212
Current year's depreciation	20,000	122,000	269,693	342,098	515,986	672,358	665,818	712,124	851,041	944,399	855,040	882,721
Prior year's depreciation		20,000	142,000	411,693	753,791	1,269,778	1,942,136	2,607,955	3,320,078	4,171,119	5,115,518	5,970,558
Total accumulated depreciation	20,000	142,000	411,693	753,791	1,269,778	1,942,136	2,607,954	3,320,078	4,171,119	5,115,518	5,970,558	6,853,279
Net assets	$73,000	$462,000	$ 924,707	$ 965,629	$1,296,267	$1,496,018	$1,299,579	$1,581,418	$1,798,955	$2,122,665	$1,716,337	$1,479,322

Exhibit 70B-1.7

Sample Projection of Vending Operator's Pretax Profit

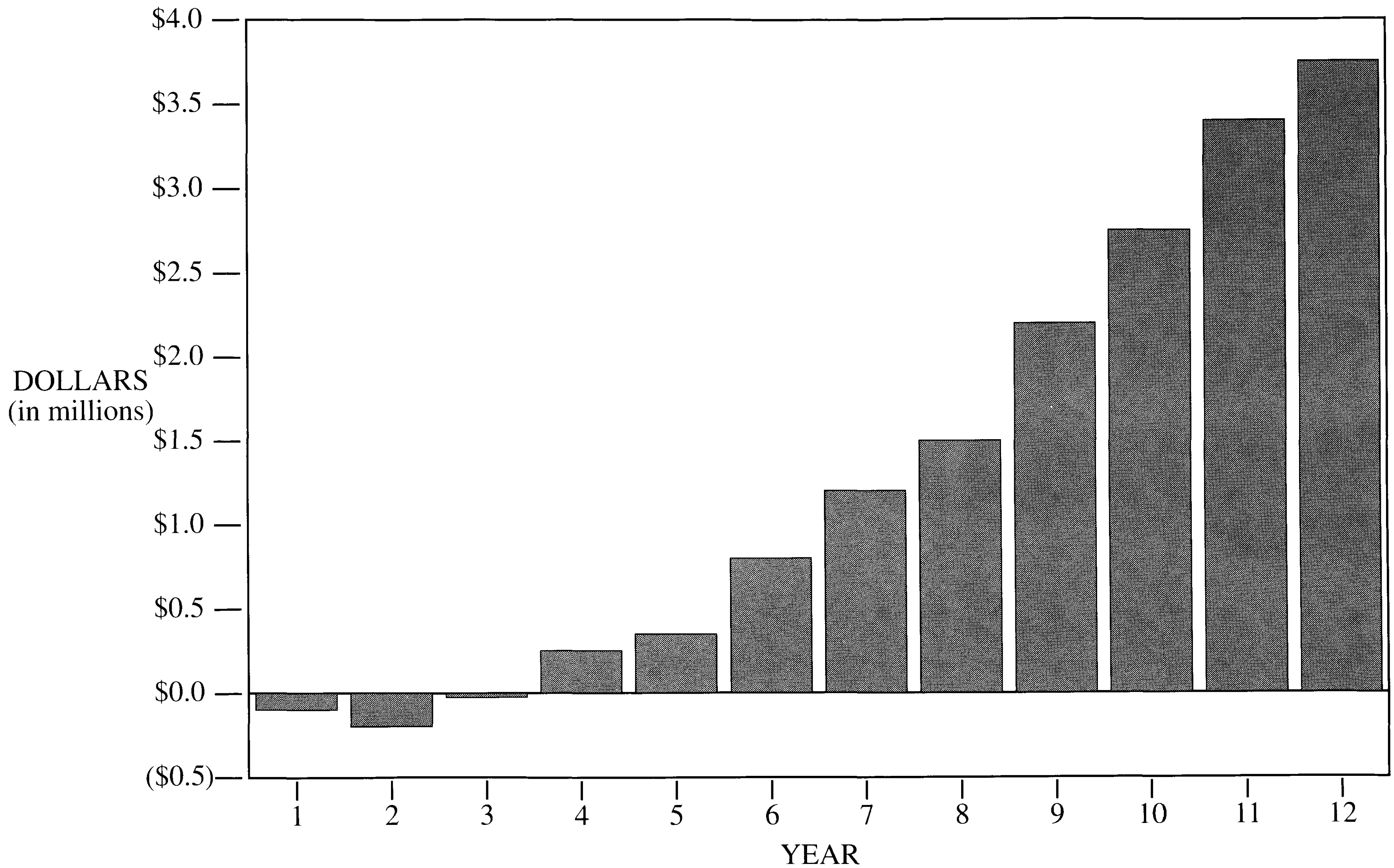

Exhibit 70B-1.8

Sample Projection of Vending Operator's Cash Flow From Operations

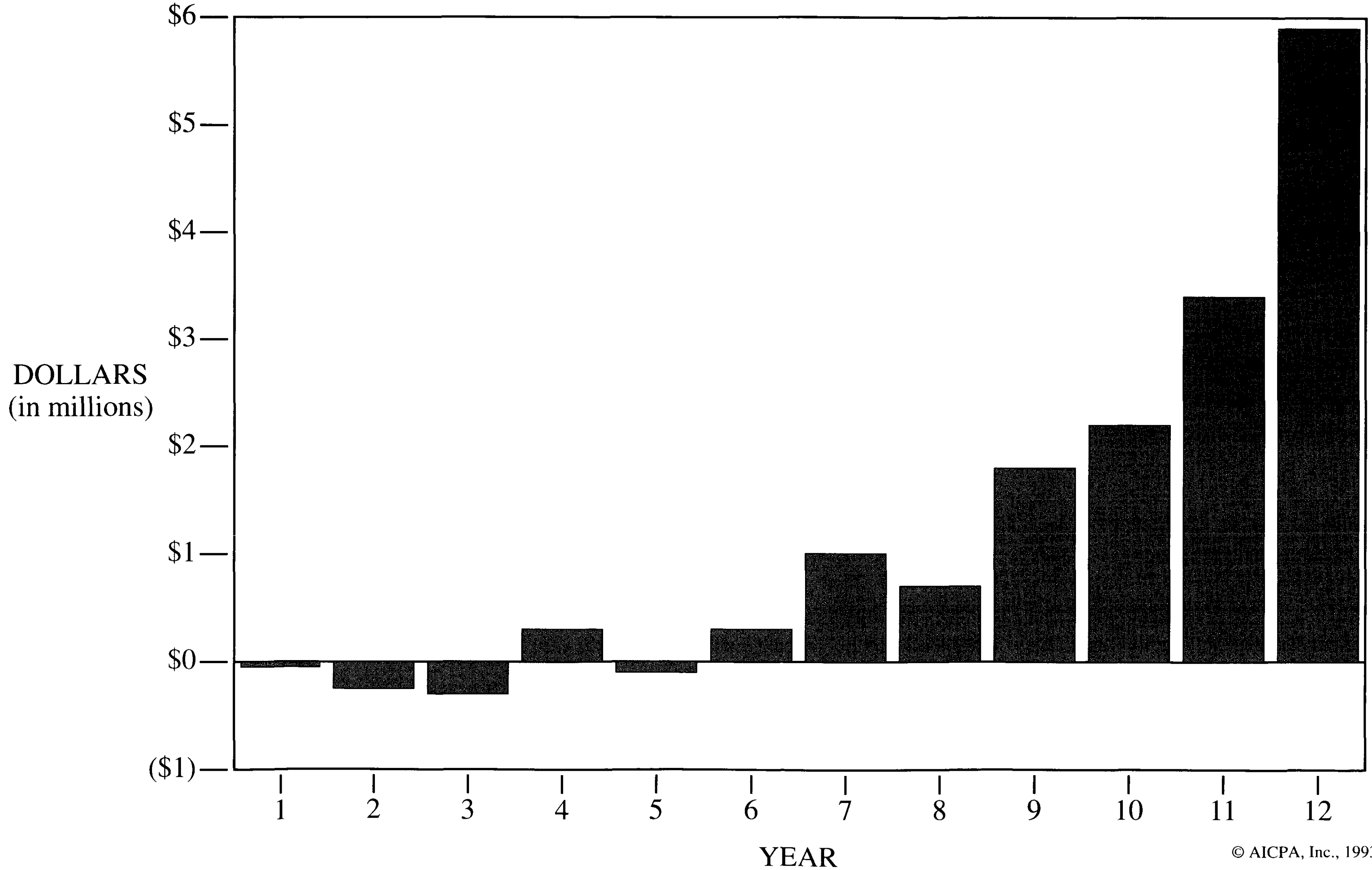

Exhibit 70B-1.9

Sample Percentage Breakdown of Vending Operator's Sales

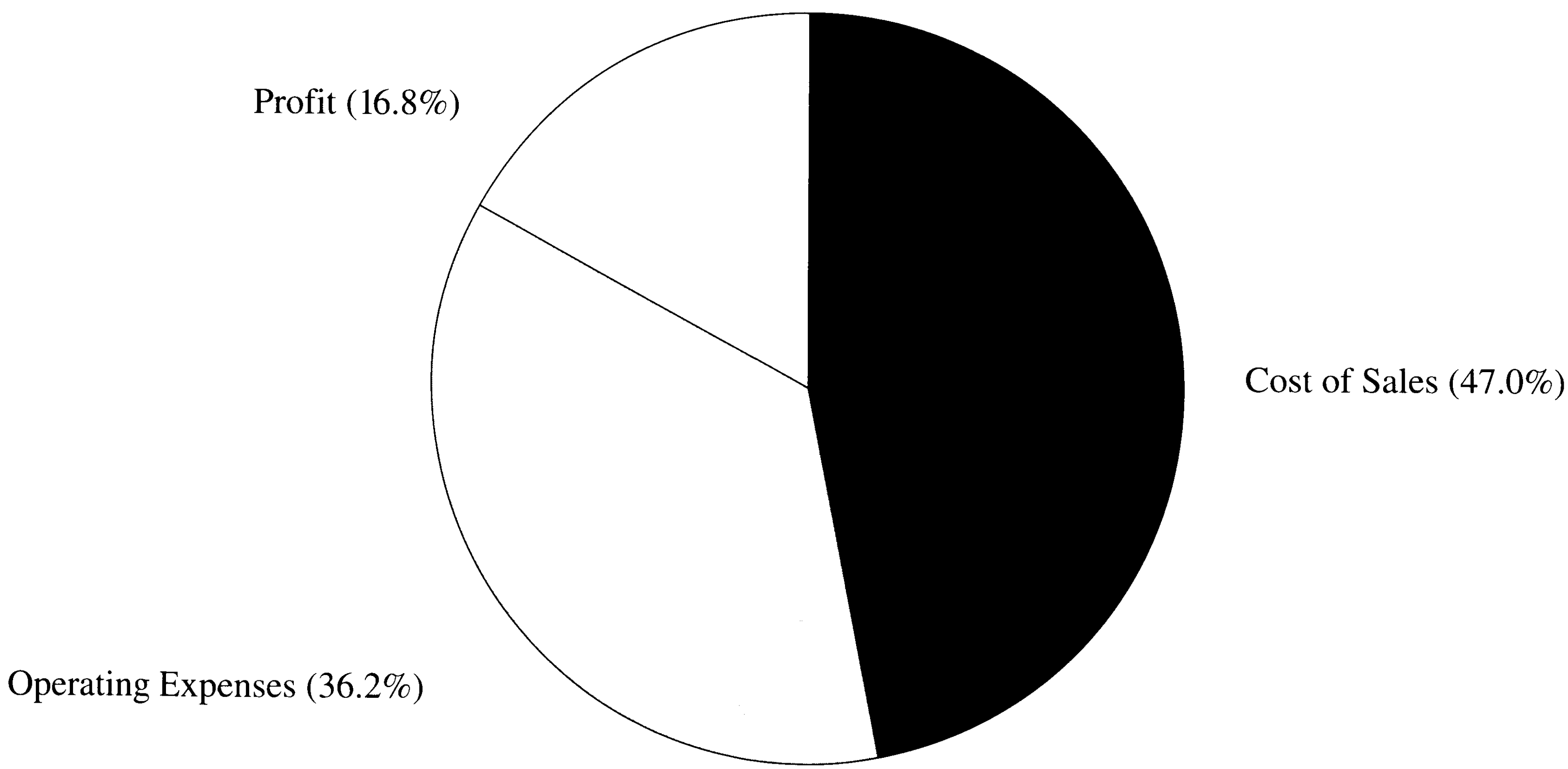

Exhibit 70B-2

Sample Request for Production of Documents

The request is from the defendant, State, to the plaintiff, Vending Operator.

1. Chart of accounts
2. General ledger
3. Cash receipts journal
4. Cash disbursements journal
5. Sales journal
6. Accounts payable subsidiary ledger
7. Monthly financial statements transmitted to State
8. Audited financial statements
9. Business forecasts or projections
10. Cash flow statements
11. Bank statements
12. Sales tax statements filed with State
13. Federal and state income tax returns
14. Minutes of the board of directors meetings
15. Correspondence with suppliers
16. Contracts with suppliers
17. Loan agreements with banks
18. Budgets and management reports
19. Studies that predict market size prepared by Vending Operator or any outside consultant
20. Construction cost records or studies related to the building of sites
21. Maintenance logs and service records
22. Payroll journals or records
23. Subcontractor contracts and correspondence

Exhibit 70B-3

Sample Deposition-Cross Examination Questions

The attorney for the defendant, State, would address these questions to the expert for the plaintiff, Vending Operator.

1. Note 1 (in exhibit 70B-1.2) in the damages study states that the revenue projection is based on annual sales of $54,420 per unit. What is the basis of this assumption? Is it based on the average revenue actually received from the five test sites that were operating?

2. Is revenue per unit based on the amount of traffic that passes the unit during the year? In other words, would a unit with ten thousand cars a day passing it generate more revenue than a unit with only five thousand cars passing it? Everything else being equal, would the former unit generate twice the revenue as the latter unit?

3. Does the damages study assume the same average traffic would pass each of the projected 160 units as the average traffic that passed the 5 units that were actually operating?

4. What was the average yearly traffic that passed the roadside rest stops in State on (a) intrastate highways and (b) interstate highways?

5. In which year does the damages study assume that Vending Operator could have started putting units on interstate rest stops?

6. In what year did the federal government actually allow vending machines at rest stops on interstate highways?

7. Identify by location and year of installation each of the 160 units that Vending Operator would have operated in State.

8. Does the damages study assume that Vending Operator is the only vending machine operator at roadside rest stops in State during the entire period of the study?

9. If the answer to question 8 is yes, why is this a reasonable assumption? Did Vending Operator's contract with State grant an exclusive right to set up vending machines at State's roadside rest stops? Where in the contract did it state this?

10. If the answer to question 8 is no, who are the competitors? How many vending sites do they have and in what locations?

11. If this market opportunity was as good as projected in the damages study, why did no one else except Vending Operator bid on the pilot project? Why, out of more than one hundred requests for proposals mailed, was Vending Operator the only one to recognize this as a profitable opportunity?

12. A 47-percent cost-of-sales assumption is used after year 1 in the damages study. On what did you base this percentage? If the answer is a published survey, do you know which companies

were included in the survey? Do you know what time period the survey covered? Identify the study by date and author, and specify where you obtained a copy.

13. During the one-year period when Vending Operator actually operated the five test sites, do you know what the actual cost of sales was as a percent of sales? Was it 67 percent?

14. Why do you believe that Vending Operator could have lowered cost of sales from 67 percent in year 1 to 47 percent in year 2?

15. From whom would Vending Operator have purchased products after year 1?

16. How did you estimate the number of employees that Vending Operator would have needed to do the business projected in the damages study?

17. Do you believe that Vending Operator would not have needed a bookkeeper until year 7, when it would have had one hundred units? Who would have maintained the books prior to year 7? If the answer is that the cost is included in Accounting Expense in the income statement, then why doesn't that expense decrease in year 7?

18. The damages study assumes that the accounting staff would never rise above one person for a business with over $16 million in sales by year 12. Is this reasonable? Why?

19. The damages study assumes only seven drivers are needed to service 160 units. This is an average of twenty-three units per driver. How often must a driver visit each unit? What is the average distance between units for each driver?

20. No buyer of supplies is projected until year 7. Who would have done the buying before year 7? Why do you believe this person, a part-time buyer, could have obtained at least average costs for the products sold?

21. No secretarial staff is projected until year 7, and only one secretary is projected through year 12. Why is this a reasonable assumption?

22. How did you calculate the salaries for each class of employee considered necessary to run the projected business?

23. Did you assume that any of the employees would be unionized?

24. What benefits did you assume for each class of employee? In which expense line on the damages study's income statement are these benefits recorded?

25. How can Vending Operator pay services personnel only $5,200 a year ($433 a month) in year 1?

26. You used a national average to project cost of sales. How did you estimate 7-percent commissions to State after year 2? What is the average commission rate that vending machine operators pay public entities?

27. Why is the accounting expense in year 2 nearly half of the year 1 expense? Although there may have been start-up accounting expenses, sales nearly tripled between year 1 and year 2. Therefore a higher accounting expense, rather than the stated lower one, seems logical.

28. How did you estimate the average annual truck expense of $1,500 (increasing by 6 percent a year)? What is included in the truck expense? Why is it so much larger in year 1?

29. Why did you assume no burglaries after the first year? Does the insurance cover 100 percent of the losses from burglary and vandalism? If yes, how was the amount of the insurance expense estimated?

30. Is tax or book depreciation used in the damages study?

31. On what is the estimated cost of equipment rental based? For example, what type of equipment would have been rented and for what purpose? Why does the amount decline by two-thirds between year 1 and year 2, when more units would have been built and sales volume would have increased?

32. What types of coverage are included in the insurance expense line of the income statement? If property insurance is included, why doesn't it rise in proportion to the growing number of units and trucks? (It appears to increase only a nominal amount each year in relation to the business's growth.)

33. You estimated that $1,090,000 would have been borrowed through year 3. During this period Vending Operator's losses are projected at $121,447. How could Vending Operator have borrowed over $1 million with this history of losses? Which financial institute would have loaned Vending Operator the money?

34. What is the basis for the interest-rate assumptions? Would these loans have been at the prime rate or prime plus some points?

35. The amounts for office expense, telephone expense, and miscellaneous expense drop dramatically between years 1 and 2. Can you explain why, when the business is expanding so rapidly?

36. New offices are projected to be opened in years 4 and 7. Where would these offices be located? Why wouldn't secretaries or bookkeepers be necessary in these offices?

37. On what do you base the 6-percent yearly increase in rent?

38. What is the one-time security charge of $70 per unit?

39. What is included in shop supplies? Why does the cost of shop supplies increase by only 6 percent a year? Shouldn't it be a function of the number of units in operation? If not, why not?

40. Why doesn't the expense for taxes and licenses increase whenever a new truck is bought?

41. What is the basis for the payroll taxes of 12.5 percent?

42. Why are sales taxes only 4.5 percent of sales? Isn't this lower than the State's sales tax rate?

43. On what did you base the construction-cost estimate of $34,000 a unit?

44. On what did you base the estimate of a twenty-year life for the buildings used to house the vending machines?

45. Does the damages study assume that the vending machines would be rented or purchased? From whom would the vending machines have been rented or purchased?

46. Where would Vending Operator have warehoused the products to supply 160 units all around the State? Have these costs been included in the damages study? Where?

47. Costs in the damages study are modeled on actual experience in year 1, when 5 units operated in a small area. But the study also assumes 160 units operating all across the State. How did you model the greater costs of running this larger business over a greatly increased area?

48. How does proximity to cities affect sales? Are roadside rest stops close to cities likely to have greater or lesser sales volume than those far from cities?

49. How would the expected expansion of cities and metropolitan areas in the State affect the buying patterns of motorists? Have you factored this into the damages study?

50. Why didn't you discount the alleged lost future cash flows (or profits) to present value? If you were to discount the lost future cash flows to the time of trial, what discount rate would you use?

51. Now that Vending Operator's principals are not spending time on the vending program for the State, what other business ventures are they spending time on? What will they do between now and year 12? How much money do you estimate they will make in these business ventures? Since they would not have had time to pursue these other ventures if they were still working with the State, shouldn't you subtract the profits from these other ventures from the damages study lost profits?

52. How many business projections have you done in the past?

GLOSSARY OF LEGAL TERMS

admission The voluntary acknowledgment by a party to the litigation that certain facts exist. Admissions are normally adverse to a party's interests and are made only after a formal request for admissions is served on the party.

affidavit A written declaration or statement of facts made by a witness under oath before an officer having authority to administer such an oath.

answer The pleading by which the defendant either denies or admits the allegations in a complaint.

appeal A request to a superior court to review an inferior court's decision. It is the remedy available to a losing party that is trying to win reversal of a lower court's decision.

collateral estoppel The conclusiveness of a judgment in a prior suit used to prove the same set of facts in a subsequent suit with a different cause of action.

complaint The pleading that begins a lawsuit and sets forth the facts and allegations that the plaintiff relies on to support the claim against the defendant.

declaration An unsworn statement of facts made out of court by a party to the transaction, or by one who has an interest in the existence of the facts.

defendant (1) The person or organization defending a lawsuit. (2) The person or organization against which a complaint or indictment has been filed in a court of law.

deposition The oral testimony of a witness taken under oath out of court and put in writing by a court reporter. The witness is examined by attorneys for all the parties. The transcript of the deposition can be used in court for various purposes.

directed verdict A verdict ordered by the judge as a matter of law when he or she rules that the party with the burden of proof has failed to present a *prima facie* case and so is not entitled to any relief.

discovery The legal procedures by which one party obtains information from the other party to a litigation. Discovery normally precedes a trial and is the period during which one party learns as much as possible about the other party's case.

evidence Any offer of proof legally presented at trial to convince the trier of fact about the offering party's facts and allegations.

expert witness (1) A person who has special knowledge or training not possessed by ordinary persons. (2) One skilled in a particular profession or trade through experience, education, or training.

forensic Belonging to or having application to courts of law.

hearsay Evidence that is based, not on the personal knowledge of the witness, but on the mere repetition of what the witness heard others say.

impeachment Questioning a witness's veracity by offering proof that he or she is not worth believing.

interrogatories Questions prepared by one party to a litigation and served on another party that must answer them under oath.

liability The condition of being actually or potentially subject to a legal obligation. A common form of liability is responsibility for a loss suffered by another.

mitigation of damages (doctrine of) The duty of an injured party to use reasonable effort to reduce or minimize the loss caused by another party to the litigation.

plaintiff (1) A person or organization that files a complaint and sues another person or organization. (2) One who complains.

pleadings The formal written statements of the parties to a litigation wherein they set forth their complaints and defenses. The most common pleadings are the complaint and the answer.

prima facie Proof sufficient to require the opposing party to answer the proof or lose the issue.

proximate cause That which produces an injury with no intervention by another event that the law recognizes as breaking the chain of causation.

rebuttal (1) The act of explaining or contradicting evidence already offered at trial. (2) The stage of the trial when rebuttal testimony is offered.

rescission of contract The unmaking of a contract that requires a complete repudiation of the contract and a return by the parties to their positions prior to entering into the contract.

restitution The act of restoring both parties to their original condition on the rescission of a contract.

subpoena A court order commanding a witness to appear.

summary judgment An official decision of a court at any stage of litigation either before or during trial, based on the belief that no triable issues of fact exist.

surrebuttal (1) The act of explaining or contradicting rebuttal testimony. (2) The stage of the trial when surrebuttal testimony is offered.

voir dire The preliminary examination of a potential witness or juror in court to determine competency or lack of bias.

BIBLIOGRAPHY

Black, Henry C. *Black's Law Dictionary.* 5th ed. St. Paul: West Publishing Co., 1979.

Cushman, Robert F., and David A. Carpenter. *Proving and Pricing Construction Claims.* New York: John Wiley & Sons, 1990.

Cushman, Robert F., Kenneth M. Cushman, and Stephen B. Cook. *Construction Litigation: Representing the Owner.* 2nd ed. New York: John Wiley & Sons, 1990.

Dunn, Robert L. *Recovery of Damages for Lost Profits.* 3rd ed. Tiburon, Calif.: Lawpress Corporation, 1987.

Dykeman, Francis C. *Forensic Accounting: The Accountant as Expert Witness.* New York: John Wiley & Sons, 1982.

Frank, Peter B., Michael J. Wagner, and Roman L. Weil. *Litigation Services Handbook: The Role of the Accountant as Expert Witness.* New York: John Wiley & Sons, 1990.

Haynes, Stephen L. *Computers and Litigation Support.* New York: Harcourt Brace Jovanovich, 1981.

Itzkoff, Norman J. *Dealing with Damages.* New York: Practicing Law Institute, 1983.

Knapp, Charles L. *Commercial Damages: A Guide to Remedies in Business Litigation.* New York: Matthew Bender, 1991.

Kraft, Melvin D. *Using Experts in Civil Cases.* New York: Practicing Law Institute, 1977.

McCarthy, John C. *Recovery of Damages for Bad Faith.* 5th ed. Kentfield, Calif.: Lawpress Corporation, 1990.

Morrison, Robert M., Alan G. Miller, and Stephen J. Paris. *Business Interruption Insurance, Its Theory and Practice.* Cincinnati: The National Underwriters Company, 1987.

Sheppard, Howard R. *Litigation Services Resource Directory for 1992.* New York: John Wiley & Sons, 1992.

Speiser, Stuart M. *Recovery for Wrongful Death and Injury, Economic Handbook.* Rochester: The Lawyers Co-Operative Publishing Co., 1988.

Vinson, Donald E. *Jury Trials, The Psychology of Winning Strategy.* Charlottesville: The Michie Company, 1986.

Wellman, Francis L. *The Art of Cross-Examination.* New York: Dorset Press, 1986.

71/100 APPLICATION OF AICPA PROFESSIONAL STANDARDS IN THE PERFORMANCE OF LITIGATION SERVICES

CONTENTS

71/100 APPLICATION OF AICPA PROFESSIONAL STANDARDS IN THE PERFORMANCE OF LITIGATION SERVICES

71/105 INTRODUCTION

.01 Litigation services are rendered by a CPA using accounting and consulting skills to assist a client in a matter that involves pending or potential litigation or dispute resolution proceedings with a trier of fact. These services may include fact-finding (including assistance in the discovery and analysis of data), damage calculations, document management, expert testimony, and other professional services required by the client or counsel. A listing of typical litigation services engagements and their products and services is provided in appendix 71/A.

.02 Authoritative publications of the American Institute of Certified Public Accountants (AICPA) address litigation services only through the process of exempting these services from the attestation standards. Section 9100.48 of *Attestation Engagements Interpretations*, "Applicability of Attestation Standards to Litigation Services," excludes litigation services that "involve pending or potential formal legal or regulatory proceedings before a trier of fact in connection with the resolution of a dispute between two or more parties. . . ." In this interpretation, the term *a trier of fact* is defined in a footnote as ". . . a court, regulatory body, or government authority; their agents; a grand jury; or an arbitrator or mediator of the dispute."

.03 Litigation services are recognized as a management consulting transaction service in the Statement on Standards for Consulting Services (SSCS) issued by the AICPA and are defined in section 70/100, "Providing Litigation Services" as "any professional assistance nonlawyers provide to lawyers in the litigation process." Finally, in the *Litigation Services Handbook: The Role of the Accountant as Expert Witness,* (New York: John Wiley & Sons, 1990) litigation services are defined as "the services provided by a CPA that encompass those accounting and consulting skills used to assist the attorney or client in a legal or regulatory environment." Bankruptcy, forensic accounting, reorganization, or insolvency services, as practiced by CPAs, generally are accepted as forms of litigation services. (See appendix 71/B.)

71/110 LITIGATION SERVICES CONTRASTED WITH ATTESTATION SERVICES

.01 The role of the practitioner in a litigation services engagement is different from that in an attestation services engagement. In an attestation engagement, the CPA firm expresses a conclusion about the reliability of a written assertion of another party. In a litigation services engagement, the practitioner helps to gather and interpret facts and must support and defend the conclusions reached against challenge in cross-examination or regulatory examination and in the work product of other experts. The attestation standards do not envision the practitioner as the asserter and were established to provide assurance to third parties. In litigation services, the practitioner is subject to the rules of the proceedings, including discovery and cross-examination. There are usually no uninformed third parties since all the litigants generally have access to the workpapers of and other documents relied upon by the CPA and can question the conclusions.

.02 In an attestation engagement, the practitioner obtains sufficient and competent evidence to support the client's written assertion. When providing litigation services, the practitioner is an objective consultant offering opinions about facts that may be in dispute to the trier of fact and is subject to the Statement on Standards for Consulting Services (see also ¶71/115.02). The standards are no less authoritative or professional than the Statements on Standards for Attestation Engagements (SSAEs) or the Statements on Standards for Accounting and Review Services (SSARSs), but are designed to consider the role of the practitioner as the asserter in litigation rather than as the attester in attestations.

.03 Litigation engagements and attestation engagements also differ in the purpose of engaging the practitioner, in the audience for the practitioner's work product and opinion, and in the use of the practitioner's conclusions. In attestation engagements, the practitioner is the independent professional to whom third parties look for assurances about the reliability of information. The third parties can then decide what commercial or financial relationships they are willing to enter into with the client. The practitioner's association with the information provides assurance of its reliability. In litigation services, the practitioner may be retained to render an expert opinion and judgment on the economic effects of assumed facts. In addition, to arrive at the opinion or judgment, the practitioner may valuate businesses or marital estates, project future economic results, investigate potential fraud, or analyze performance in accordance with professional standards. The relevant data may be limited and may be much less than the full set of financial statements. Furthermore, the litigants themselves may disagree about which financial information is pertinent and therefore should be used by the trier of fact in resolving the dispute.

.04 In litigation engagements, the audience for the practitioner's opinion and work product is limited to the court and the parties to the dispute. Each has the opportunity to evaluate and question the workpapers, documents, and methodology of the practitioner. Much of the information normally required by generally accepted accounting principles (GAAP) in financial reporting may be irrelevant to the issues to be decided in court. Requiring a practitioner to perform an audit in order to testify may not be cost effective for any of the parties to the litigation.

71/115 PROFESSIONAL STANDARDS APPLICABLE TO LITIGATION SERVICES

.01 Litigation services are consulting services provided by CPAs and their employees as business advisors. The services are transaction services, one of six major functions within consulting services, and, therefore, adherence to the SSCS is required. Such services used to be called *management advisory services* and were governed by the Statements on Standards for Management Advisory Services (SSMASs). These statements were superseded by the SSCS, effective January 1, 1992. The CPA engaged in litigation services must also comply with the general standards of the accounting profession contained in the AICPA Code of Professional Conduct. The appropriate standards that apply are discussed further in this report.

General Standards

.02 The general standards contained in rule 201 of the AICPA Code of Professional Conduct apply to litigation services as well as to all other services rendered by CPAs to their clients. The general standards cover professional competence, due professional care, planning and supervision, and sufficient relevant data.

.03 **Professional Competence.** Practitioners undertake only those litigation services that they reasonably can expect to complete with professional competence. Litigation services involve such diverse areas as business valuation, economic damages, bankruptcy, family law, fraud, breach of contract, antitrust, and intellectual property. Consequently, practitioners may be unprepared to meet client needs adequately in every area and in every phase of litigation engagements. To comply with this standard in providing some litigation services, practitioners may need the assistance of other individuals with the required education and experience while retaining professional responsibility for the opinions that fall within their areas of expertise.

.04 Professional competence includes being able to identify client needs and to apply an analytical approach and being knowledgeable about the technical areas involved in the litigation engagement. CPAs also need to gain an understanding of the litigation process and to discuss with the client their qualifications and those required under court rules and procedures.

.05 **Due Professional Care.** A practitioner exercises due professional care in the performance of an engagement. Due care requires diligence and critical analysis of all work performed. It also requires that all work be completed in accordance with the provisions of the applicable professional standards of the AICPA including the Code of Professional Conduct. A practitioner engaged to attest to the results of the services rendered must perform in accordance with the SSAEs.

.06 In a litigation engagement, practitioners are often the only accounting professionals capable of quantifying the impact of the events that led to the dispute. Their work product is therefore important in the litigation process. Each party to the proceedings will retain professionals to quantify and analyze the economic impact of events. Practitioners need to be able to evaluate and challenge the assumptions and calculations of other professionals as well as defend their own assumptions and calculations under rigorous cross-examination.

.07 **Planning and Supervision.** A practitioner adequately plans and supervises the performance of professional services. Planning is essential in a litigation engagement both to control costs and to focus the practitioner's work product on the engagement requirements. Planning consists of developing engagement objectives and translating them into the activities necessary for the CPA to form an opinion within the constraints of cost, time, and available information. Planning guides the conduct, supervision, control, and completion of the engagement.

.08 The facts and circumstances of each litigation engagement are unique. Planning is essential to ensure the quality of the performance of professional services in each engagement. Planning includes obtaining information from counsel or the client. Plans continually change in a litigation engagement and usually are not written because the litigation process is dynamic.

.09 As with any professional services, the supervision of assistants helps to ensure quality performance. The extent of the supervision will vary according to the number of assistants, their experience, and the complexity of the engagement. The practitioner, as the potential expert witness or consultant, is responsible for the results of the engagement.

.10 **Sufficient Relevant Data.** A practitioner attempts to obtain relevant data that is sufficient to provide a reasonable basis for conclusions or recommendations for any professional service performed. In litigation, data are obtained by discovery through depositions, interrogatories, and production motions. In addition, the data-gathering process may include a review of relevant documents, research and analysis, and interviews. The nature and extent of the data will vary with each engagement and may include the practitioner's computations and analysis and other information supporting conclusions.

Consulting Standards

.11 In addition to the general standards, specific consulting standards apply to the consulting process and are established by the SSCS under rule 202 of the AICPA Code of Professional Conduct. These standards concern serving the client's interest, entering into an understanding with the client, and communicating with the client.

.12 The general standards are concerned with the quality of the performance of any professional service. The consulting standards apply specifically to the consulting process to guide practitioners in their relationships with consulting clients.

.13 **Defining the Client.** Each of the consulting standards refers to the client. The practitioner needs to have an understanding of who the client is to comply with the consulting standards. Under the AICPA Code of Professional Conduct (AICPA, *Professional Standards*, vol. 2, ET sec. 92.01), the client is defined as—

> . . . any person or entity, other than the member's employer, that engages a member or a member's firm to perform professional services or a person or entity with respect to which professional services are performed. The term 'employer' for these purposes does not include those entities engaged in the practice of public accounting.

.14 In litigation services, the client can be the law firm or the litigant as the client of the law firm, or an agency, regulatory body, or court that employs the CPA. In cases in which the practitioner is a consultant and the work product may be confidential or even considered to be an attorney's work product, the law firm may wish to be designated as the client. In cases in which the practitioner expects to testify or have the work product open to discovery and challenge, the litigant usually would be considered the client. For all practical purposes, particularly to consider conflict of interest issues, the litigant should be deemed to be a client irrespective of the form of engagement.[1] Thus, from the CPA's point of view, both the attorney and the litigant may be deemed clients in the engagement.

.15 From the attorney's perspective, the question of who the client is may vary according to the particular circumstances of each engagement. Therefore, the CPA should carefully determine who the client is and address the engagement letter to the client identified by the attorney.

.16 **Client Interest.** In compliance with the consulting standards, the CPA serves the interest of the client by seeking to accomplish the objectives established by the understanding with the client while maintaining integrity and objectivity. Rule 102 of the AICPA's Code of Professional Conduct states:

> In the performance of any professional service, a member shall maintain objectivity and integrity, shall be free of conflicts of interest, and shall not knowingly misrepresent facts or subordinate his or her judgment to others.

.17 Under this standard, the practitioner in litigation engagements is required to maintain professional integrity and objectivity and to meet technical and ethical standards in performing services. The practitioner serves the client's interest best when objectivity and integrity are paramount concerns.

.18 An engagement should be undertaken with a clear understanding of the purposes of the services and the expected areas of testimony. The practitioner begins a litigation services engagement by considering its objectives and the expected benefits. During the course of the engagement, the practitioner needs to inform the client of any reservations about achieving these objectives within the constraints of cost and time.

.19 **Understanding With the Client.** The practitioner establishes a written or an oral understanding with the client, who may for this purpose be the attorney representing the litigant, about the responsibilities of the parties and the nature, objectives, and limitations of the services to be performed. If the understanding is oral, the practitioner considers documenting the agreement in the workpapers. If circumstances require a significant change during the engagement, the understanding, whether written or oral, should be modified accordingly.

.20 **Communication With the Client.** In compliance with rule 102 of the AICPA's Code of Professional Conduct and interpretations thereof, the practitioner informs the client of any

[1] For further discussion of conflicts, see section 72/100, "Conflicts of Interest in Litigation Services Engagements."

conflicts of interest. A conflict of interest may occur if a significant relationship could be viewed as impairing the practitioner's objectivity in the performance of a professional service. The practitioner should carefully evaluate each engagement request with sensitivity to the possibility of such conflicts.

.21 A conflict of interest might arise in the performance of litigation services when the CPA has a relationship with one of the partners to the dispute, the court, attorneys, or witnesses and thus may not be an impartial expert. The responsibility of the practitioner is to decline litigation engagements that involve a conflict of interest. Otherwise, the practitioner might disclose confidential client information in the litigation process through discovery or testimony. Before accepting an engagement, the practitioner might, to the extent possible given confidentiality requirements, disclose to the client and counsel any situations involving conflicts of interest so that each party may independently consider the impact of such facts.

.22 When the conflict is uncertain, the practitioner discloses the possible conflict of interest and allows the prospective client or counsel to consider the potential impact on the litigation.[2] Nothing in the professional standards requires a practitioner to accept any engagement, so the practitioner can, without stating specific reasons, refuse an engagement for any reason. On the other hand, a practitioner who wishes to accept an engagement, but is concerned about possible conflicts, should evaluate those possibilities before acceptance.

.23 In addition to assessing possible conflicts of interest, practitioners consider whether it is otherwise in their best interest to accept the engagement. The goals and objectives of their practice might conflict with the performance of services in the proposed engagement. Although there may be no conflict with the attorneys or parties to the litigation, the issues in dispute may be areas that the practitioners are uncomfortable about pursuing or that may conflict with their philosophy, practice, or business interest.

.24 Under the SSCS, before accepting or during the engagement, the practitioner should communicate to the client any serious reservations concerning the scope or benefits of the engagement. During the performance of the engagement, communications should include significant engagement findings and events. These communications enable the client to evaluate the costs and benefits of the engagement.

71/120 RELATIONSHIP OF ATTESTATION AND OTHER PROFESSIONAL STANDARDS TO LITIGATION SERVICES

.01 Litigation services are professional services rendered by a practitioner or employee of the CPA firm in accordance with the AICPA's SSCS. Litigation services differ in several ways

[2] *Ibid.*

from services provided in attestation engagements. In attestation engagements, the practitioner assesses the fairness of the written assertions of others, which may be in the form of financial statements, parts of such statements, or information not of a financial nature. In litigation engagements, the practitioner typically renders an expert opinion or provides other consulting services based upon expert judgment, experience, education, training, and analysis in compliance with applicable professional standards. The foundation of and audience for this opinion are different from those addressed by the attestation standards. Disclosure of the basis for the CPA's conclusion normally is greater in litigation services than in attestation services. In attestation engagements, the opinion expressed is that of the CPA firm. In litigation engagements, the individual practitioner is the expert expressing an opinion. The litigation services practitioner is not exempt from professional standards but must comply with standards different from those that apply to attestation services. An understanding of the standards is essential in order to evaluate the performance of the CPA expert. A decision tree to help practitioners determine which professional standards to comply with in an engagement is provided in exhibit 71C-1 in appendix 71/C.

.02 Litigation services are normally exempt from compliance with attestation standards and certain other professional standards including the AICPA's Statements on Auditing Standards (SASs) and SSARSs. In a July 1990 interpretation of the attestation standards, the AICPA's Auditing Standards Board indicated the circumstances under which the standards do not apply to litigation services. Similarly, in May 1991, the AICPA's Accounting and Review Services Committee issued an interpretation stating the conditions under which SSARSs do not apply to litigation services engagements.

.03 Attestation standards do not apply to litigation engagements when the CPA does not issue a report expressing an opinion about the assertion of another party.[3] (As part of a litigation services engagement, the CPA often is asked to critique the written report of the opposing party's expert. This consulting service in and of itself does not constitute an attestation service.) The CPA is subject to neither the SSAEs nor SSARSs when serving as a trier of fact or an expert witness, when developing a work product that is subject to analysis and challenge by other parties to the dispute, or when performing work that is protected by the attorney's work product privilege and is not intended to be used for any other purposes.[4]

[3] Attestation standards, according to the Interpretation of Statement on Standards for Attestation Engagements, "Attestation Standards: Attestation Engagements Interpretations of Section 100" (AICPA, *Professional Standards*, vol. 2, AT sec. 9100-50), may apply if the practitioner "expresses a written conclusion about the reliability of a written assertion that is the responsibility of another party and that conclusion and assertion are for the use of others who, under the rules of the proceedings, do not have the opportunity to analyze and challenge such work."

[4] See the Interpretation of Statement on Standards for Attestation Engagements, "Attestation Standards: Attestation Engagements Interpretations of Section 100" (AICPA, *Codification of Statements on Standards for Attestation Engagements*, AT sec. 9100.48) and the Interpretation of Statement on Standards for Attestation Engagements, "Attestation Standards: Attestation Engagements Interpretations of Section 100" (AICPA, *Professional Standards*, vol. 2, AT sec. 9100.76).

.04 When the SSAEs or the SSARSs do not apply to litigation engagements, the work should be performed in compliance with the SSCS as well as the general standards and Code of Professional Conduct.

.05 Attestation standards may be applicable to litigation services engagements under certain circumstances. For instance, the practitioner may choose to perform litigation services in accordance with attestation standards. To decide what standards to follow, the practitioner has to evaluate carefully the steps that will be taken to complete the engagement. The AICPA's SSAEs usually do not apply to litigation services engagements. They do apply, however, when the practitioner, as a part of a litigation services engagement, is engaged specifically to perform a service governed by those standards or to express in writing a conclusion about the assertion of a third party that other parties cannot analyze or challenge.[5]

.06 A difficult circumstance could exist when, during the course of a litigation services engagement, the CPA firm is required to perform an audit or review of financial records to support a litigation opinion or is retained to perform professional services that come under the Statement on Standards for Accountants' Services on Prospective Financial Information, *Financial Forecasts and Projections*. The engagement clearly involves attestation services that are governed by the SSAEs. Accordingly, if the litigation services engagement requires the practitioner to perform an audit, the engagement will have to be in compliance with generally accepted auditing standards (GAAS). A practitioner who does not perform such an engagement in accordance with the attestation standards, but who nevertheless labels the work product as audited or uses the report language of prospective financial services, could be in violation of the professional standards. A requirement of independence exists for providing attestation services, but not for providing litigation services.

.07 Normally, SSARSs do not apply to litigation services. However, these standards are applicable whenever the practitioner performs or is engaged to perform a compilation or a review as part of an overall litigation services engagement. Therefore, unless services must be performed in accordance with SSARSs or unaudited financial statements are prepared, SSARSs will not apply and the consulting standards will govern the conduct of the engagement.

.08 Identification of the applicable standards may be difficult in some circumstances. At the outset of the engagement, it may not be clear whether the practitioner's work product is subject to the attestation standards. If engaged, the practitioner should therefore attempt to foresee the outcome of the engagement and decide whether the attestation standards or the consulting standards apply.

[5] The evaluation of statements contained in a written assertion of another party when providing a consulting service does not in and of itself constitute the performance of an attest service. See the Statement on Standards for Attestation Engagements, *Attestation Standards* (AICPA, *Professional Standards*, vol. 1, AT sec. 100.74) for further explanation.

Reporting Standards

.09 No specific reporting standards apply to consulting engagements including litigation services engagements. However, the SSCS requires that the results of a consulting engagement be communicated to the client without specifying the nature of the communication. Whether the practitioner needs to provide a conclusion and written report at the end of the engagement depends upon the agreement between the client and the practitioner.

.10 If a written report is provided, it must be worded carefully to avoid representing that the work was performed in conformance with the attestation standards when it was not. Accordingly, a term such as *examination* should be avoided because it implies the use of the attestation standards.

.11 Certain litigation proceedings involve no direct oral testimony. In such cases, the practitioner may be asked to issue testimony in writing. There are no reporting standards that apply to testimony in a litigation services engagement. Furthermore, given the diversity of litigation engagements, a standard reporting format is impractical and unrealistic. However, the practitioner who issues a report must convey the purpose of the report in a clear and logical manner, which accurately reflects the work performed and the conclusions reached and does not imply conclusions that were not reached or standards that were not implemented.

71/125 CONCLUSION

.01 Litigation services encompass a wide range of professional services that a practitioner may provide to clients. A list of engagement situations and the products, services, and functions associated with litigation services is provided in appendix 71/A. The practitioner and the client should understand the professional standards that apply in a litigation services engagement. The general standards of the profession and the Code of Professional Conduct apply to all services rendered by a practitioner. Usually, litigation services are covered by the SSCS. However, the practitioner may accept and perform litigation engagements that require compliance with the SSAEs or the SSARs.

APPENDIX 71/A

TYPICAL LITIGATION SERVICES ENGAGEMENTS AND THEIR PRODUCTS AND SERVICES

Although the following list of products and services is extensive, it is not all-inclusive.

A. A CPA may be engaged to provide litigation services as—

- An expert witness before a trier of fact.
- A consulting expert to an attorney (protected by the attorney's work product privilege) with no other intended purpose.
- A trier of fact.
- An arm of the court (as distinct from being appointed by the court as accountant for the parties).

B. The possible products or services include—

- Computation of economic damages:
  - Lost profits
  - Lost value
  - Extra costs
  - Lost cash flow
  - Mitigation
  - Restitution
- Professional standards analyses.
- Valuation of:
  - Businesses
  - Pensions
  - Intangibles
- Fraud identification.
- Pre- and post-bankruptcy restructuring and liquidation consulting.
- Products relating to solvency in bankruptcy situations.
- Tax analyses:
  - Tax basis
  - Cost allocation
  - Treatment of specific transactions
- Maintenance and asset divisions relating to divorce.
- Contract cost and claims analyses.

- Historical results analyses.

- Projections.

- Antitrust analyses:
  - Price fixing
  - Market share
  - Market definition
  - Predatory conduct
  - Dumping
  - Price discrimination

- Attest services, if specifically engaged to perform them in connection with litigation services.

C. Any of the following functions may be performed:

- Issue identification

- Locating other experts

- Fact-finding:
  - Asset searches
  - Market studies
  - System reviews
  - Interviewing of witnesses
  - Due diligence
  - Research

- Analysis:
  - Investigative accounting
  - Computer modeling
  - Statistical
  - Actuarial

- Discovery assistance

- Document management

- Settlement assistance

- Expert testimony

- Trial and deposition assistance

- Post-trial support (bookkeeping services, funds administration)

- Negotiations
- Arbitration
- Mediation
- Training

APPENDIX 71/B

BANKRUPTCY AND REORGANIZATION SERVICES

Bankruptcy and Reorganization Services Defined

CPAs frequently provide accounting and financial advisory services, as well as unique bankruptcy services, such as acting as trustee-examiners and providing claims processing, to financially troubled companies that are considering or are in the process of reorganizing. The reorganization may be a formal proceeding in a bankruptcy court (for example, a Chapter 11 case) or an out-of-court restructuring. Such services may also be provided to creditors and other parties-in-interest of the restructuring company. Common characteristics of troubled companies that seek to restructure include underperformance, poor cash flow, overleveraging, weak management, extensive litigation involvement (for example, product liability cases and labor disputes), loss of market share, and so forth.

The delivery of reorganization services to such companies may include—

- Preparing or reviewing valuations of the debtor's business.
- Analyzing the profitability of the debtor's business.
- Preparing or reviewing the monthly operating reports required by the bankruptcy court.
- Reviewing disbursements and other transactions for possible preference payments and fraudulent conveyances.
- Preparing or reviewing the financial projections of the debtor.
- Performing financial advisory services associated with mergers, divestitures, capital adequacy, debt capacity, and so forth.
- Consulting on strategic alternatives and developing business plans.
- Providing assistance in developing or reviewing plans of reorganization or disclosure statements.[6]

Reorganization services are dynamic. Often the scope of the engagement is revised as the restructuring progresses and as negotiation strategies develop. Companies frequently begin a reorganization outside of bankruptcy, but when they cannot reach agreement with all the necessary parties, the reorganization is completed as a bankruptcy proceeding.

Out-of-court restructurings are generally undertaken with the aid of bankruptcy counsel and financial advisers. Each negotiating party, such as a borrower or a lender, enters the discussions with full knowledge of its rights should a bankruptcy filing result from the failure to reach a consensus on the restructuring.

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[6] The words *review* and *reviewing* are not intended to have the same meaning as they do in the AICPA's SSARSs.

Bankruptcy and Restructuring Services as Litigation Services

Bankruptcy services provided by CPAs generally are accepted as a form of litigation services. This acceptance is due to the many fundamental and practical similarities between bankruptcy services and the consulting services associated with other forms of litigation. Bankruptcy law, as promulgated by the Bankruptcy Code and case law, is applied by bankruptcy judges and lawyers to resolve disputes between a debtor and its creditors (for example, distribution of the debtor's assets). Bankruptcy cases frequently include actions related to claims for preferential payments and fraudulent conveyances; negligence of officers, directors, or professionals engaged by the debtors; or other allegations common to commercial litigation. The bankruptcy court has the power and authority to value legal claims and resolve such common litigation as product liability, patent infringement, and breach of contract. The decisions of bankruptcy judges can be appealed as can the decisions of other courts.

From a practical standpoint, negotiation among the parties in bankruptcy cases is as important as it is in civil and criminal litigation (for example, settlement of commercial litigation and plea bargains in criminal trials). When the parties are unable to resolve the disputes themselves, the trier of fact determines the outcome.

There are similarities between the judicial process applied to bankruptcy and that used for other litigation (for example, discovery, expert testimony, and rules of evidence). It is reasonable to conclude, therefore, that bankruptcy services are a form of litigation services consistent with the type of services contemplated by the AICPA in developing the interpretation, "Applicability of Attestation Standards to Litigation Services" (AICPA, *Professional Standards,* vol. 1, AT sec. 9100.47-55).

Out-of-court restructuring holds the potential for litigation. Therefore, the settlement process is generally conducted with the same scrutiny, due diligence, and intense challenge as that of a formal court-administered process. Furthermore, bankruptcy services provided by CPAs are typically not three-party attest services (the three parties in attest services are the asserter, the attester, and the third party). Instead, affected parties have the opportunity to question, challenge, and provide input to the bankruptcy findings and process.

When Other Professional Standards Apply to Bankruptcy and Reorganization Services

CPAs regularly provide both consulting and attest services in connection with bankruptcy or restructuring. The CPA must evaluate the nature of the services carefully to determine if any are exempt from the Statement on Standards for Attestation Engagements (SSAEs) and the Statements on Standards for Accounting and Review Services (SSARs). For the litigation services' exemption to apply, the service must be performed in connection with the litigation and the parties to the proceeding must have an opportunity to analyze and challenge the work of the CPA. Furthermore, the CPA must—

- Assess the services to be performed.
- Understand the intended use of the CPA's work product.

- Identify the parties that may rely on the work product.

- Decide whether the attestation standards apply.

It is quite possible that in a particular reorganization engagement, certain services will not be subject to attestation standards, but others will. If the attestation standards do not apply, the CPA should consider disclosing on the face of the documents, or in a separate report, the extent of service rendered and the responsibility assumed by the CPA, if any. Such disclosures may help the reader to understand the extent of the CPA's role and the intended use of the work product.

Both the SSAEs and SSARSs are applicable to litigation services and bankruptcy engagements when the practitioner—

a. Expresses a written conclusion about the reliability of a written assertion by another party, and the conclusion and assertion are for the use of others who, under the rules of the proceedings, cannot analyze and challenge the work.

b. In connection with litigation services, is specifically engaged to perform a service in accordance with the SSAEs or SSARSs.

Further, an essential part of many bankruptcies and restructurings is the development of prospective financial information (PFI). PFI often is used to negotiate with creditors or committees of creditors representing a group or class of creditors. PFI also may be included in disclosure statements to inform creditors and other parties of the financial condition of the company according to certain restructuring and operating instructions.

Parties-in-interest generally can challenge PFI and its assumptions during negotiations or during bankruptcy court hearings on the plan's feasibility and adequacy of disclosure. In situations in which the users of the PFI cannot challenge the CPA's work, the attestation standards may apply. Such situations may arise, for example, when exchange offers are made to creditors or shareholders with whom the company has not negotiated or who are not members of a creditor group represented by a committee.

The attestation standards (in Statement on Standards for Accountants' Services on Prospective Financial Information, *Financial Forecasts and Projections* (AICPA, *Professional Standards,* vol. 1, AT section 200.02) generally provide that an examination, compilation, or agreed-upon procedures engagement should be performed whenever an accountant submits PFI to clients or others. However, AT section 200.03 does provide an exemption from the attestation standards when an engagement involves prospective financial statements used solely in connection with litigation support services. This exemption is provided because, among other things, the accountant's work in such proceedings is ordinarily subject to detailed analysis and challenge by each party to the dispute.

When attestation standards do not apply, CPAs may wish to state the extent of their association with any work product and the responsibility they have assumed. It may be appropriate for CPAs to explain both their association and their responsibility, if any, through a transmittal letter or a statement affixed to documents distributed to third parties. The following wording is suggested:

> The accompanying schedules (projected financial information; debt capacity analysis; liquidation analysis) were assembled for your analysis of the proposed restructuring and recapitalization of ABC Company. The aforementioned schedules were not examined or reviewed by independent accountants in accordance with standards promulgated by the AICPA. This information is limited to the sole use of the parties involved (management; creditors' committee; bank syndicate) and is not to be provided to other parties.

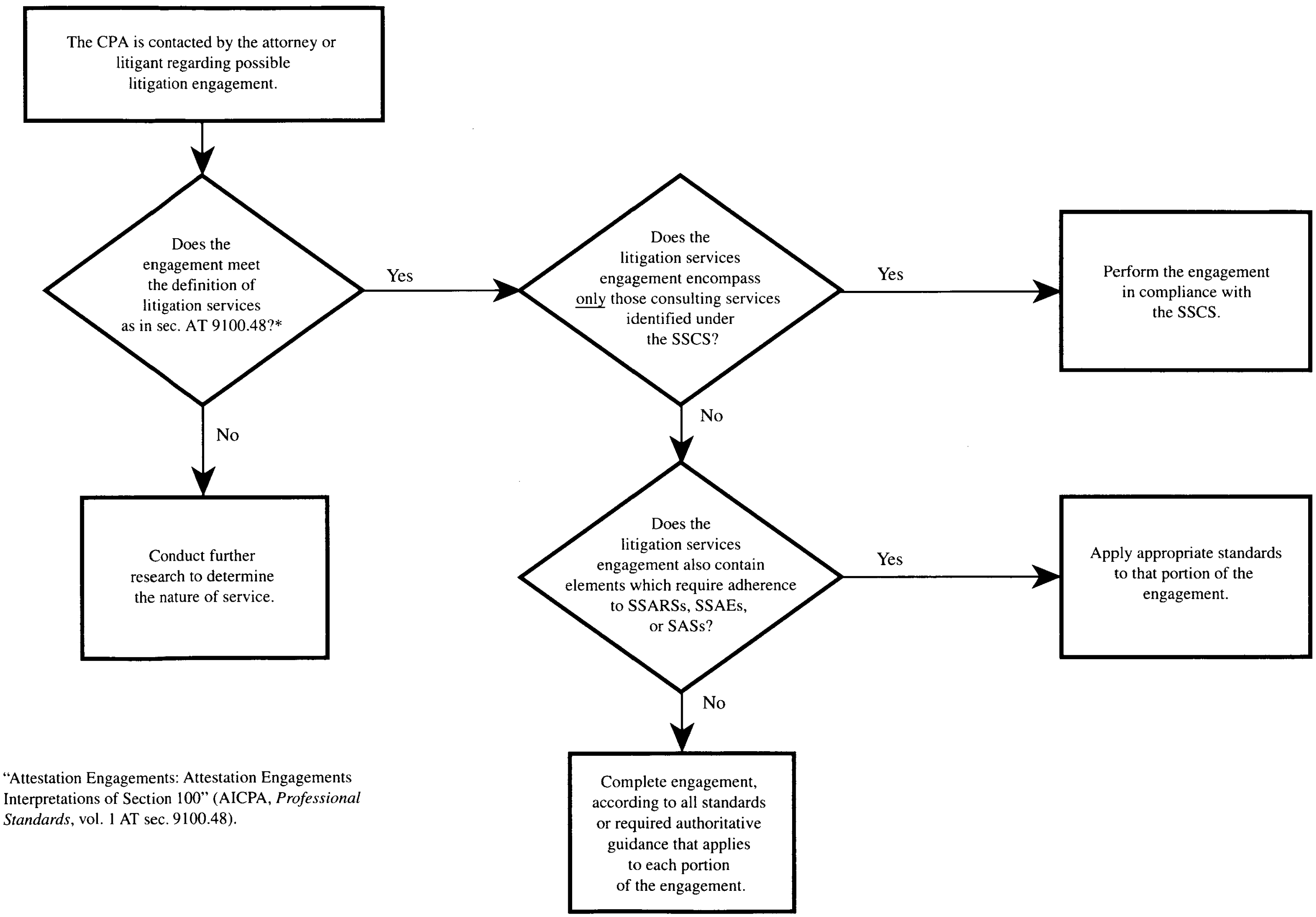
APPENDIX 71/C

DECISION TREE FOR DETERMINING THE APPROPRIATE PROFESSIONAL STANDARDS TO APPLY TO LITIGATION SERVICES, WITH ILLUSTRATIVE CASE STUDIES

Practitioners can use the decision tree provided in exhibit 71C-1 to determine which professional standards apply in a litigation services engagement. The case studies in exhibits 71C-2 to 71C-6 illustrate the application of the decision tree to particular engagements.

Exhibit 71C-1

Decision Tree to Determine the Application of Professional Standards



* "Attestation Engagements: Attestation Engagements Interpretations of Section 100" (AICPA, *Professional Standards*, vol. 1 AT sec. 9100.48).

Exhibit 71C-2

Case Study I: Forensic Accounting

Mark Helm, CPA, has been requested by ABC Company to ascertain the extent of fraud allegedly perpetrated by one of the company's employees. The results of the investigation will be used to negotiate a settlement with PENN Bonding Company. Helm has been asked to perform the procedures that he considers necessary, and it is expected that he will issue a formal report.

The following questions and answers illustrate the process of determining which professional standards must be complied with in the engagement:

A. *Question:* What form of service is being requested?

Answer: The answer to question A can be determined by applying the decision tree in exhibit 71C-1, as follows:

Step	*Criteria*	*Decision*
1.	Does the engagement meet the definition of litigation services?	Yes. Forensic accounting is a litigation service.
2.	Does the litigation services engagement encompass only those consulting services identified under the SSCS?	Yes. The practitioner is to perform a consulting service.
3.	Does the litigation services engagement also contain elements that require adherence to the SSARSs, SSAEs, or SASs?	No. See below.

Exemption from the SSARSs, SSAEs, and SASs requires a *no* answer to question *a* or a *yes* answer to any questions from *b* through *e*.

a.	Will the practitioner issue a written communication that expresses a conclusion about the reliability of a written assertion that is the responsibility of another party?	No.
b.	Will the service comprise being an expert witness?	No.
c.	Will the service comprise being a trier of fact or acting on behalf of one?	No.

d.	Is the practitioner's work, under the rules of the proceedings, subject to detailed analysis and challenge by each party to the dispute?	Yes.*
e.	Is the practitioner engaged by an attorney that will be protected by the attorney's work product privilege, and is such work not intended to be used for other purposes?	No.

4. Determine the nature of the elements not covered by the SSCS, SSARSs, SSAEs, or SASs, and adhere to appropriate standards or refer to available guidance.

5. Complete the engagement.

B. *Question:* Would the answer be different if no formal report was requested and the results were to be supported only by Helm's working papers?

Answer: No. The answer would be the same. The written report is not a criterion for distinguishing engagements.

C. *Question:* If Helm constructs the engagement as an agreed-upon procedures engagement, is he governed by "Special Reports—Applying Agreed-Upon Procedures to Specified Elements, Accounts, Items of a Financial Statement," (AICPA, *Statement on Auditing Standards No. 35,* Section 622), on agreed-upon procedures or by the attestation standards?

Answer: Neither. The answer would be the same. Agreed-upon procedures can be used in a consulting engagement and the practitioner can look to SAS 35 for guidance but should not indicate, imply, or construe the engagement as falling under the attestation standards or the auditing standards (including SAS 35).

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* It is reasonable to presume that the adverse party will evaluate and challenge the company's position.

Exhibit 71C-3

Case Study II: Potential Legal Proceedings

Barbara Matson, CPA, has been requested by XYZ Company, which is a defendant in a legal suit, to evaluate a damages study presented by the plaintiff Contractors, Inc. Matson has been requested to provide a report of her findings and an opinion regarding the reasonableness of the study. The following questions and answers illustrate the process of determining the professional standards with which Matson must comply in performing the engagement.

A. *Question:* What form of service is being requested?

Answer: The answer to question A can be determined by applying the decision tree in exhibit 71C-1, as follows:

Step	*Criteria*	*Decision*
1.	Does the engagement meet the definition of litigation services?	Yes. The case involves a client with potential formal legal or regulatory proceedings before a trier of fact.
2.	Does the litigation services engagement encompass only the consulting services identified under the SSCS?	No. As stated in Statement on Standards for Attestation Engagements, *Attestation Standards,* (AICPA, *Professional Standards.* vol. 1, AT sec. 100.75). "The evaluation of statements contained in a written assertion of another party when performing a management advisory service does not in and of itself constitute the performance of an attest service."
3.	Does the litigation services engagement also contain elements that require adherence to the SSARSs, SSAEs, or SASs?	No. See below.

Exemption from the SSARs, SSAEs, and SASs requires a *no* answer to question *a* or a *yes* answer to any questions from *b* through *e.*

a.	Will the practitioner issue a written communication that expresses a conclusion about the reliability of a written assertion of another party?	No. See the response to question 2 above.
b.	Will the service comprise being an expert witness?	No.

c. Will the service comprise being a trier of fact or acting on behalf of one? No.

d. Is the practitioner's work, under the rules of the proceedings, subject to detailed analysis and challenge by each party to the dispute? No.

e. Is the practitioner engaged by an attorney to do work that will be protected by the attorney's work product privilege, and is such work not intended to be used for other purposes? No.

4. Determine the nature of the elements not covered by the SSCS, SSARs, SSAEs, or SASs and adhere to appropriate standards or refer to available guidance.

5. Complete the engagement.

B. *Question:* Under what circumstances would this become an attestation engagement?

Answer: If Matson was engaged to report to both parties as to the reliability of the damage study.

Exhibit 71C-4

Case Study III: Expert Witness

John Lake, CPA, has been requested by the law firm of Smith & Miller to be an expert witness and provide a report critiquing a damage study prepared for the law firm by Ray Dante, another expert witness. The following questions and answers illustrate the process of determining which professional standards Lake must comply with in performing the engagement.

A. *Question:* What form of service is being requested?

Answer: The answer to question A can be determined by applying the decision tree in exhibit 71C-1, as follows:

Step	*Criteria*	*Decision*
1.	Does the engagement meet the definition of litigation services?	Yes. The practitioner is engaged to be an expert witness.
2.	Does the litigation services engagement encompass only those consulting services identified under the SSCS?	Yes. This practitioner is to perform a consulting service.
3.	Does the litigation services engagement also contain elements that require adherence to the SSARSs, SSAEs, or SASs?	No. See below.

Exemption from the SSARSs, SSAEs, and SASs requires a *no* answer for question *a* or a *yes* answer to any question from *b* through *e*.

a.	Will the practitioner issue a written communication that expresses a conclusion about the reliability of a written assertion of another party.	No. As stated in Statement on Standards for Attestation Engagements, *Attestation Standards,* (AICPA, *Professional Standards.* vol. 1, AT sec. 100.75). "The evaluation of statements contained in a written assertion of another party when performing a management advisory service does not in and of itself constitute the performance of an attest service."
b.	Will the service comprise being an expert witness?	Yes.
c.	Will the service comprise being a trier of fact or acting on behalf of one?	No.

d.	Is the practitioner's work, under the rules of the proceedings, subject to detailed analysis and challenge by each party to the dispute?	No.
e.	Is the practitioner engaged by an attorney to do work that will be protected by the attorney's work product privilege, and is such work not intended to be used for other purposes?	Yes.

4. Determine the nature of the elements *not* covered by the SSCS, SSARSs, SSAEs, or SASs, and adhere to appropriate standards or refer to available guidance.

5. Complete the engagement.

B. *Question:* Would the answer to question A be different if John's conclusions were to be expressed in testimony to the court in a form that adheres to the SSAEs or SSARSs.

Answer: Yes, if Smith & Miller had requested Lake to issue a report in accordance with the SSAEs or SSARSs or if Lake had decided to do so.

Exhibit 71C-5

Case Study IV: Claim Evaluation

Judith Sauter, CPA, has been requested by Pawling Insurance Company to evaluate a claim by an insured for a business interruption that is in litigation. Sauter is requested to perform the procedures she considers necessary to evaluate the claim, supporting her conclusions in her working papers. The following questions and answers illustrate the process of determining which professional standards Sauter must comply with in performing the engagements.

A. *Question:* What form of service is being requested?

Answer: The answer to question A can be determined by applying the decision tree in exhibit 71C-1, as follows:

Step	*Criteria*	*Decision*
1.	Does the engagement meet the definition of litigation services?	Yes. The practitioner is engaged to do work related to a claim in litigation.
2.	Does the litigation services engagement encompass only those consulting services identified under the SSCS?	Yes. The engagement is a consulting service as contemplated by the SSCS.
3.	Does the litigation services engagement also contain elements that require adherence to the SSARSs, SSAEs, or SASs?	No. See below.

Exemption from the SSARSs, SSAEs, and SASs requires a *no* answer to question *a* or a *yes* answer to any question from *b* through *e*.

a.	Will the practitioner issue a written communication that expresses a conclusion about the reliability of a written assertion of another party?	No. The workpapers are not a written report on a third party assertion but are the practitioner's own assertions.
b.	Will the service comprise being an expert witness?	No.
c.	Will the service comprise being a trier of fact or acting on behalf of one?	No.

d. Is the practitioner's work under the rules of the proceedings, subject to detailed analysis and challenge by each party to the dispute? No.

e. Is the practitioner engaged by an attorney to do work that will be protected by the attorney's work product privilege, and is such work not intended to be used for other purposes? No.

4. Determine the nature of the element not covered by the SSCS, SSARs, SSAEs, or SASs and adhere to appropriate standards or refer to available guidance.

5. Complete the engagement.

B. *Question:* Would the answer to question A be different if a formal report was requested?

Answer: No. As stated in Statement on Standards for Attestation Engagements, *Attestation Standards,* (AICPA, *Professional Standards.* vol. 1, AT sec. 100.75). "The evaluation of statements contained in a written assertion of another party when performing a management advisory service does not in and of itself constitute the performance of an attest service."

Exhibit 71C-6

Case Study V: Business Valuation and Audit

Paul Davis, CPA, has been requested by Bob Trep, managing partner of Able Law Services, a law firm in a partnership dissolution and whose partners are in litigation with one another, to perform a business valuation and to audit the practice's financial statements as of the date of the dissolution in accordance with the SSAEs. The following questions and answers illustrate the process of determining which professional standards Davis must comply with in performing the engagement.

A. *Question:* What form of service is being requested?

Answer: The answer to question A can be determined by applying the decision tree in exhibit C-1, as follows:

Step	Criteria	Decision
1.	Does the engagement meet the definition of litigation services?	Yes. The practitioner is performing a business valuation and the client situation involves pending formal legal or regulatory proceedings before a trier of fact.
2.	Does the litigation services engagement encompass only those consulting services identified under the SSCS?	No. This practitioner is to perform an attestation service.
3.	Does the litigation services engagement also contain elements that require adherence to the SSARSs, SSAE, or SSASs?	Yes. See below

Exemption from the SSARSs, SSAEs, and SASs require a *no* answer for question *a* or a *yes* answer to any question from *b* through *e*.

a.	Will the practitioner issue a written communication that expresses a conclusion about the reliability of a written assertion of another party.	Yes.
b.	Will the service comprise being an expert witness?	No.
c.	Will the service comprise being a trier of fact or acting on behalf of one?	No.

d.	Is the practitioner's work under the rules of the proceedings, subject to detailed analysis and challenge by each party to the dispute?	No.
e.	Is the practitioner engaged by an attorney to do work that will be protected by the attorney's work product privilege, and is such work not intended to be used for other purposes?	No.

4. Determine the nature of the elements not covered by the SSCS, SSARSs, SSAEs, or SASs and adhere to appropriate standards or refer to available guidance.

5. Complete the engagement.

B. *Question:* Would adherence to the SSAEs be required if Paul was not specifically engaged to perform the service in accordance with the SSAEs?

Answer: No, if Paul's written communication, which expresses a conclusion about the reliability of the financial statements, is, under the proceedings, subject to detailed analysis and challenge by each party to the dispute.

BIBLIOGRAPHY

American Institute of Certified Public Accountants. *Code of Professional Conduct.* New York: AICPA, 1991.

______________________. *Codification of Statements on Standards for Attestation Engagements.* New York: AICPA, 1992.

______________________. *Litigation Support Services (CPE Course).* New York: AICPA, 1989.

______________________. *Professional Standards.* New York: AICPA, 1991.

______________________. *Statement on Standards for Consulting Services.* New York: AICPA, 1991.

Dykerman, Francis C. *Forensic Accounting—The Accountant as Expert Witness.* New York: John Wiley & Sons, Inc., 1982.

Frank, Peter, Michael Wagner, and Roman Weil. *Litigation Services Handbook: The Role of the Accountant as Expert Witness.* New York: John Wiley & Sons, Inc., 1990.

Kellogg, Irving, and Loren Kellogg. *Fraud, Window Dressing and Negligence in Financial Statements.* Vols. 1 and 2. New York: Shephard's-McGraw Hill, 1991.

Mellman, Martin, Steven Lillien, and James Docherty. *Discovery Techniques: Obtaining and Analyzing Business Financial Data.* New York: Warren Gorham & Lamont, 1991.

Sheppard, Howard. *Litigation Services Resources Directory.* New York: John Wiley & Sons, Inc., 1991.

Wagner, Michael, and Peter Frank. *Litigation Services.* MAS Technical Consulting Practice Aid Series. New York: AICPA, 1986.

72/100 CONFLICTS OF INTEREST IN LITIGATION SERVICES ENGAGEMENTS

CONTENTS

72/100 CONFLICTS OF INTEREST IN LITIGATION SERVICES ENGAGEMENTS

72/105 PROFESSIONAL ISSUES IN LITIGATION SERVICES

.01 Litigation services are rendered by a CPA using accounting and consulting skills to assist a client in a matter that involves potential or pending litigation or dispute resolution proceedings with a trier of fact. The services rendered may include fact-finding (including assistance in the discovery and analysis of data), damage calculations, document management, expert testimony, and other professional services. Bankruptcy, reorganization, and insolvency services as provided by CPAs generally are considered litigation services. A CPA providing litigation services will have responsibilities as an objective professional that range from rendering a judgment about accounting principles or facts at issue to providing analyses of and opinions regarding one of several acceptable alternative calculations or determinations (even under generally accepted accounting principles). The CPA's interpretation of conflicts of interest that could result from accepting a litigation services engagement may differ significantly from that of the attorney who owes nearly total allegiance to and is an advocate for the client.

The Need to Maintain Integrity and Objectivity

.02 In a litigation services engagement, a conflict of interest exists when a CPA's ability to objectively evaluate and present an issue for a client will be impaired by current, prior, or possible future relationships with parties to the litigation. As a professional, the CPA should avoid engagements that involve conflicts of interest. Rule 102 of the AICPA Code of Professional Conduct requires that members shall, in the performance of any professional service, maintain objectivity and integrity, shall be free of conflicts of interest, and shall not knowingly misrepresent facts or subordinate their judgment to others.

.03 The criterion for evaluating whether a conflict of interest is involved in a litigation services engagement is the ability of the CPA to maintain integrity and objectivity as described in the Statement of Standards for Consulting Services (SSCS). A conflict of interest is based in fact, rather than appearance. However, the CPA should be mindful of and deal with appearances of conflicts before accepting the engagement.

.04 Interpretation 102.2 of the Code also indicates that a conflict of interest may occur if, while performing a professional service for a client, the CPA or the firm has a significant relationship with another person, entity, product, or service that could be viewed as impairing their objectivity. The rule provides, however, that if this significant relationship is disclosed to the client and other appropriate parties, and they consent to the CPA's acceptance of the engagement, the rule shall not prohibit the performance of the professional service.

.05 In addition to the rule and related interpretation concerning conflicts of interest, the CPA who provides litigation services must also consider the impact of rule 301, "Confidential Client Information." Rule 301 prohibits a member in public practice from disclosing any confidential client information without the consent of the client. The CPA therefore may be unable to disclose to or obtain consent from all of the appropriate parties. Indeed, the legal process may operate to prevent the CPA from disclosing any information to other parties, particularly in the case of expected or threatened litigation. Rule 301 may restrict the CPA's attempts to resolve apparent conflicts of interest or business relationships. Problems arising under rule 102, its interpretation, and Rule 301 are commonly referred to as conflicts of interest, perceived or otherwise, in the provision of litigation services.

The Concept of Independence

.06 Independence is not a criterion in the determination of whether a conflict of interest exists in a litigation services engagement. Independence as an ethical issue is limited to attestation engagements[1] as required by the attestation standards, which also address the question of the appearance of independence. The independence concept was developed to ensure the CPA's objectivity and credibility in examining and reporting upon financial statements that will be relied upon by people who cannot investigate the assertions. The reliability of the CPA's professional opinion of the financial statements gives them more credibility and usefulness. The independence concept forms an important part of the comprehensive and well-documented set of standards applied to attestation services. However, in generally accepted auditing standards, little guidance is provided on the relationship of the independence concept to litigation services.

Conflict Issues for CPAs

.07 Unlike the legal profession, the accounting profession has developed little formal guidance on conflicts of interest. Most guidance relating to the CPA's professional relationships concerns the concept of independence, focusing primarily on the relationship between the CPA and the client in an attestation engagement. This guidance, however, is not directly concerned with relationships that the CPA may have in other types of engagements.

.08 The increasing use of CPAs as consultants and expert witnesses in litigation has required them to consider their professional relationships in new ways. When an attorney seeks to engage a CPA for litigation services, both professionals are concerned with whether the CPA

[1] See the AICPA MAS Special Report *Comparing Attest and Management Advisory Services: A Guide for the Practitioner.* (New York: AICPA, 1988).

has a conflict of interest with any of the parties to the litigation. Unfortunately, there is much confusion as to precisely what this means. An attorney has a well-defined and documented concept of what constitutes such a conflict in the legal profession. Consequently, this concept may be applied inappropriately to the CPA, who may be confused as well because of the lack of guidance in professional accounting literature. However, the standards of the legal profession concerning conflicts of interest should not be applied to the accounting profession because the roles of the attorney and the CPA in litigation are entirely different.

.09 A conflict of interest may arise from the CPA's ethical obligation to preserve client confidences or from the existence of relationships that may undermine objectivity in presenting an issue concerning a client. In judging conflicts of interest, the CPA should differentiate between those based on fact and those that could arise as a result of perceptions or business considerations. The CPA may come to different conclusions based on the category into which the issue falls. The CPA may base a decision to decline an engagement on the existence of the perception that a conflict exists, on business considerations, or on other reasons such as lack of expertise or time. Conversely, absent a conflict of interest or possession of confidential information, the CPA may accept an engagement even if business relationship issues exist.

.10 The CPA must decide whether a conflict of interest exists on a case by case basis. If none exists, the CPA must then decide whether a business relationship or a perception of a conflict exists that may warrant declining the request for professional services. For example, the CPA may decline to perform services because the position required by the prospective client conflicts with the business interests of an existing client. Thus, while a conflict of interest may not exist as defined by the professional standards, conflicting business relationships may indeed exist. This determination is based on the CPA's judgment. If a perception of conflict exists, the CPA may be unable to obtain permission to accept the engagement from all of the appropriate parties because of confidentiality of information. In this instance, the CPA may have to evaluate whether a conflict of interest actually exists.

.11 Clearly, multi-office CPA firms face a difficult problem in monitoring conflicts of interest. Opportunities for conflicts arise not only because of the number of offices and clients but also because of the variety of services offered by these firms. Multi-office firms may therefore need a formal system to identify relationships that pose potential conflicts of interest.

.12 Before accepting a litigation services engagement, CPAs carefully evaluate their relationships, if any, with all parties to the action to identify potential conflicts. These parties include named and potential adverse parties including counsel to the opposing parties. During the course of an engagement, there is always the potential for a non-opposing party to become an opposing party. Therefore, continuing sensitivity to newly arising conflicts is necessary, particularly in engagements that are long or involve several parties.

.13 In evaluating certain situations, the CPA may conclude there is no conflict but that the attorney could perceive a conflict. Before accepting such an engagement, the CPA should disclose to the retaining attorney any prior or existing relationships with all parties to the litigation, if disclosure is permitted by the parties with whom the CPA has a confidential relationship. When possible, disclosure of such relationships is good practice, even if a conflict may not exist. Great care, however, should be taken to avoid disclosing client confidences, including names, which in themselves may be confidential. Indeed, there may be circumstances in which the very fact of a prior relationship is confidential. In rejecting an engagement, the CPA may not disclose confidential information gained from another client.

Differences Between CPAs' and Lawyers' Professional Responsibilities

.14 The litigation services practitioner should understand the difference between the responsibilities of accountants and those of attorneys under each profession's conflict of interest rules. An attorney in litigation is an advocate for the client. Indeed, the attorney has an ethical obligation to represent a client "zealously within the bounds of the law." By design, the American litigation process is an adversarial proceeding in which the best case for each litigant is put before the trier of fact. The attorney who is neutral, independent, and objective could not do the job well. As law professors Aronson and Weckstein have put it:

> Once a lawyer agrees to serve as an advocate, he must loyally safeguard his client's interest, urge any permissible construction of the law favorable to the client—without regard to his personal opinion as to what construction will ultimately prevail—and, in general, must resolve any doubts as to the law and facts in the client's favor.[2]

.15 This duty of advocacy is not just a characteristic of the legal profession but is part of its very fabric:

> Of equal importance in our adversary system is that counsel be loyal to his client. 'The duty of a lawyer, both to his client and to the legal system, is to represent his client zealously within the bounds of the law...' [EC7-1] Note that this partisanship does not arise merely from any retainer paid by the client to the lawyer, but is imposed upon the lawyer by the legal system, regardless of the presence or absence of financial remuneration. There is no basic conflict between the duty of lawyer to his client and to the court. In the adversary system, loyalty and zealousness in representation of the client is the primary duty of the lawyer as an officer of court.[3]

.16 The litigation process demands that the attorney take every available advantage for the client, put the client's case in the best possible light, not offer evidence that is harmful to the client (with some exceptions), and challenge everything possible in the opponent's case. The opposing attorney, of course, has the same job. In a very real sense, a litigating attorney becomes the client's champion.

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[2] Aronson, R.H. and D.T. Weckstein, *Professional Responsibility* (West Publishing Co., 1980), p. 13.

[3] *Ibid.*, p. 272.

.17 It is thus not only appropriate, but also absolutely necessary, that lawyers have a strict conflict of interest policy. It generally is not possible to represent one client while also representing another with actual or potentially opposing interests. To attempt to do so, however carefully, would be intrinsically unfair to both clients. For this reason, before accepting an engagement, lawyers go to great lengths to ascertain whether they represent or have represented other clients whose interests do or could oppose those of a prospective client.

.18 The American Bar Association Rules of Professional Conduct contain several rules concerning conflicts of interest. According to the general rule, an attorney shall not represent a client if doing so would be directly adverse to the interests of another client or if the representation of that client may be limited materially by the attorney's responsibility to another client or third person or by the attorney's own interest. In both cases, however, the attorney who reasonably believes that representation will not adversely affect the relationship with the other client, may represent the client if both clients consent after a full disclosure of the circumstances and consultation (with certain stated exceptions). The general rule also provides that the attorney who represents several clients in a single matter must explain to each the implications of the common representation and the advantages and risks involved.

.19 The general rule does not alter the arguments of case law and ethics opinions that, in certain cases involving actual or apparent conflicts, consent to continued representation is immaterial, and in certain cases or situations in which the conflict is apparent rather than real, multiple representation is not permissible. In addition, the rule provides that a lawyer who has represented a client in a matter shall not represent another client in the same or a substantially related matter whose interests are materially adverse to the interests of the former client, unless the attorney fully discloses the circumstances in consultation with the former client.

.20 The legal profession's *Canons of Ethics* provides that loyalty is an essential element in the attorney's relationship with a client. Maintaining the required independence of professional judgment precludes accepting or continuing employment that will adversely affect the attorney's judgment on behalf of or dilute loyalty to a client. The problem often arises when an attorney is asked to represent two or more clients who may have interests that are conflicting, inconsistent, diverse, or otherwise discordant. An attorney is an advocate who owes complete loyalty to the client.

.21 The CPA as an expert witness has a role that differs from that of an attorney. The CPA does not serve as an advocate but rather is presented to the trier of fact as someone with specialized knowledge, training, and experience in a particular area and presents positions with objectivity. The function of the CPA as an expert witness is to assist the trier of fact in understanding complex or unfamiliar concepts. The CPA expert is not expected to singlemindedly and one-sidedly offer only evidence and opinions that help the client. The CPA is expected to offer an objective opinion, based on knowledge and experience, of how the issues at hand should be interpreted by the trier of fact. A CPA is required by professional standards to maintain objectivity and integrity in providing any professional service. Rule 102 of the *Code of Professional Ethics* of the AICPA states:

> In the performance of any professional service, a member shall maintain objectivity and integrity, shall be free of conflicts of interest, and shall not knowingly misrepresent facts or subordinate his or her judgment to others.

.22 The essential qualities of objectivity in a CPA expert are perhaps obscured by the fact that the role is executed in an adversarial process. The CPA is offered to the court and paid by one side. Nevertheless, the CPA's opinions should be based on the facts in a given case, regardless of who the client is. Indeed, several elements of the litigation process strongly encourage objectivity. First, the CPA expert presents the work and opinions under oath. Secondly, the bases for the CPA expert's opinions usually are subject to comprehensive discovery by opposing attorneys as well as cross-examination at trial. The work may also be subject to rebuttal by similarly qualified experts hired by the opposing side. Furthermore, the CPA expert's long-term credibility is at risk, since testimony might be used in certain circumstances to impeach testimony in subsequent cases.

.23 In effect, the requirement for objectivity and integrity for a CPA cannot readily be equated with the undivided loyalty to a client required of a lawyer. Accordingly, many relationships that would result in a conflict of interest for a lawyer may not result in a conflict for the CPA expert.

.24 The role of the CPA working directly for an attorney may be further complicated because of the privileged nature of communication that may extend to the accountant's work product. The CPA must decide whether there is a conflict of interest or business relationship considering the context of the work requested and the nature of the advice sought. The CPA judges whether the expected role is to function as an objective expert or to support a position taken by counsel. The CPA must maintain objectivity and integrity as well as avoid conflicts of interest and must be careful to avoid a position of advocacy that would lack integrity (for example, supporting a position the CPA knows to be false).

72/110 ILLUSTRATIVE CASE STUDIES

.01 The following case studies illustrate the potential conflicts of interest or business relationships that a CPA may encounter when asked to provide litigation services.

Simultaneous Conflicts

.02 Barbara Smith, a CPA, has worked with clients in the travel industry for several years. Her current engagements include attestation and consulting services for Airline A, a national carrier. The consulting services engagement involves assisting management to evaluate marketing strategies for dealing with competition. Recently, Commuter B, a start-up commuter airline, filed suit against Airline A for causing it economic losses by operating below cost in the market area. Because of Smith's expertise in the airline industry, Commuter B asks her assistance in preparing its claim for damages. Should Smith accept this engagement?

.03 Rule 301 of the AICPA Code of Professional Conduct states: "A member in public practice shall not disclose any confidential client information without the specific consent of the client." Smith therefore should consider whether she has obtained confidential client information in providing Airline A with attestation and consulting services. Since these services probably involved reviewing information relevant to Commuter B's lawsuit, Smith should question whether to accept this engagement because it would appear to compromise Airline A's confidences.

.04 Rule 301 suggests that with Airline A's consent, Smith could pursue the engagement. However, it may be difficult to obtain such consent. Furthermore, as a matter of business practice, most CPAs would not accept an engagement directly adverse to the interests of a continuing attestation client. Such an engagement might cause difficulties for Smith in assessing valuation and disclosure requirements for the financial statements of the attestation client and in maintaining confidentiality for the two clients. Airline A likely would have to be advised adequately of the nature of the Smith's prospective engagement with B in order to make an informed decision. To advise A of this, Smith would require the approval of B's lawyers, who would be concerned about the confidentiality of their trial preparation plans if she were to describe the nature of the engagement adequately.

.05 In a different situation, Alan Mason, a tax CPA, provides Company A with only tax advice and tax compliance reporting. Company B approaches George Carpenter, a partner in the litigation services division of Mason's firm, for assistance in developing its damages case against Company A. The damages case involves matters totally separate from the tax engagement. Should Carpenter decline this engagement because of a potential conflict of interest?

.06 If Carpenter has had no access to confidential information about the matter in litigation and would establish procedures to ensure there will be no such access during the pendency of the case, he could conclude that no conflict exists. However, the existence of the tax engagement should be disclosed to the attorney for Company B and, if possible, Company A also should be informed. Early disclosure gives Company B's attorney an opportunity to consider this issue before retaining Carpenter and gives Company A an opportunity to object if it views the appearance of conflict differently from Carpenter.

.07 Carpenter may also wish to consider the impact of the engagement on his tax partner's relationship with Company A. Although Carpenter may not have a conflict of interest, he may decide to decline the engagement for business considerations. Business interests may cause the CPA to refuse an engagement, but the limited knowledge gained by others in the firm in any specialized area may not create a conflict of interest.

.08 In performing an audit or an attest function for a client, CPAs generally have broad access to confidential information. Therefore, they should be much more sensitive to actual conflicts of interest when they are providing attestation services to one of the litigants involved.

Subsequent Conflicts

.09 CPA Smith's consulting services to Airline A involved only a completed engagement to assist in developing a marketing plan. There is no ongoing relationship. Subsequently, Commuter B approaches Smith for assistance with damages in its lawsuit. Does the lack of an ongoing relationship permit Smith to accept the engagement with B?

.10 Rule 301 on confidential client information is not limited to current clients. A practitioner must be able to have the full confidence of a client in order to provide assistance adequately. To ensure this relationship, the profession assures clients that information gained in an engagement will never be disclosed to others without their consent. Thus, Smith must consider carefully whether the litigation services engagement would create a conflict by appearing to require use of information obtained in the consulting engagement.

Preliminary Interviews With Prospective Clients

.11 When a CPA is approached by a prospective client about a litigation engagement, the client or its attorney typically will give the CPA sufficient information about the case to assist in identifying the opposing parties, the key issues in dispute, and the role intended for the CPA. In describing the matter at hand, the prospective client may communicate confidential information to the CPA. If the CPA is not retained by this prospective client and subsequently is approached by the client's opposition, must the CPA decline the opposition's offer of an engagement to protect the confidential information received previously?

.12 This question has not been specifically addressed by the accounting profession. However, rule 301 prohibits revealing any confidential client information. State bar associations generally have concluded that a prospective client from whom an attorney obtains confidential information during an initial interview is a client nonetheless, against whom the attorney cannot use this information. This conclusion may guide the CPA even though the rules of conflict of interest for attorneys differ from those for accountants. To avoid this problem, the CPA should attempt to limit the confidential or strategic information received before deciding on the prospective engagement.

Joint Representation

.13 Joint representations occur when a CPA is engaged by both opposing parties for assistance in resolving the issues in their dispute. A request for joint representation could arise in a variety of circumstances. Given the adversarial nature of a litigation services engagement, before accepting one, the CPA should carefully consider the nature of the relationship with each of the parties and the role to be played. The concern is usually greater in marital dissolutions as is illustrated in the following case.

.14 Joan Evans, a CPA, has provided a full range of services to a married couple for several years. The husband is a principal in a closely held business for which Evans has provided consulting and accounting services. In addition, the couple has acquired ownership interest in several pieces of income property for which Evans has provided tax advice as well as accounting services. In a marital dissolution action, the couple requests Evans's help with the accounting and valuation aspects of the property settlement. Can Evans accept this engagement?

.15 A lawyer's ability to represent both parties in a dispute has been restricted by case law and legal ethics because of the lawyer's role as advocate. An accountant, however, brings objectivity to a dispute. Even so, it may be difficult for Evans to advise adequately both parties to a divorce, given their prior relationships. In deciding whether to accept the engagement, Evans needs to consider two issues. First, during her prior engagement with the couple, she may have received confidential information from one of the parties. By accepting the joint engagement, Evans might compromise the confidential nature of these communications. The second issue concerns objectivity. Evans may have a more significant economic relationship with one spouse through work performed for the business. This relationship could lead to an inability to provide objective advice for both spouses.

.16 The nature of the prior relationship must govern the decision. If there was no prior relationship with the couple, or the relationship was limited in scope, Evans could consider accepting the engagement. Nevertheless, in joint representations the adversarial nature of the dispute is an inherent risk. A CPA might be best advised to act as a court-appointed accountant to be insulated from the adversarial nature of the assignment. In any event, there should be complete disclosure to both parties, and the CPA should obtain informed consent to the joint representation with a clear identification of the engagement's scope.

.17 The CPA should consider the same factors before accepting engagements in which two clients with potentially differing interests ask for common assistance. Borrowers and lenders and buyers and sellers may also request joint representation. In general, the CPA would have no conflict and could accept engagements to resolve business disputes between two parties objectively.

Simultaneous Consultations

.18 The issue of a conflict also arises when a CPA is engaged to work simultaneously for and against clients of the same law firm in different cases. For example, Expert A may be retained by Counsel A to assist Plaintiff A by providing a valuation of an apartment building. Counsel B is the attorney for Defendant B in this matter. Before the case goes to trial, Counsel B approaches Expert A about an unrelated case. Counsel B, however, is unaware that Expert A is a consultant for Counsel A in Counsel B's other case. Does Expert A have a conflict in this situation?

.19 Since no confidential client communications are involved, and Expert A can maintain objectivity and integrity, there is no conflict of interest. Nevertheless, the situation is ticklish because Expert A may wish to notify Counsel B of the relationship with Counsel A. However, such notification ethically cannot be given until Counsel A chooses to disclose that Expert A has been retained. Expert A may seek permission from Counsel A to disclose the relationship;

however, lacking approval, Expert A may wish to refuse the engagement offer of Counsel B without disclosing the reason.

.20 This conflict question raises a problem for counsel rather than an ethical question for the expert witness. An attorney may feel that the engagement of the CPA implies approval of the opponent's expert. The CPA should be aware of the potential for problems in such circumstances and should fully disclose such relationships to counsel, if possible, before accepting an engagement.

.21 This situation presents a conflict of business relationships, not a conflict of interest, and thus is a matter for the individual CPA to decide.

Other Potential Conflicts

.22 Several other situations give rise to considerations of conflicts of interest or business relationships. The CPA may be asked to testify on one side of an issue after testifying on the other side in a previous case. This situation can be complicated further in a multi-partner firm, if one partner testifies on one side of an issue and another partner is later asked to testify for the other side. In both cases, conflict of business relationships clearly exist and indeed the appearance of a conflict of interest may exist in the public's perception of the CPA's or the firm's views. Under generally accepted accounting principles, however, alternative views may be possible and indeed permissible. For example, under differing fact patterns, different conclusions may be drawn. A consistent position, however, would benefit the credibility and posture of the CPA. In these situations, the CPA's public image may be a more significant concern than the applicability of any conflict of interest rule.

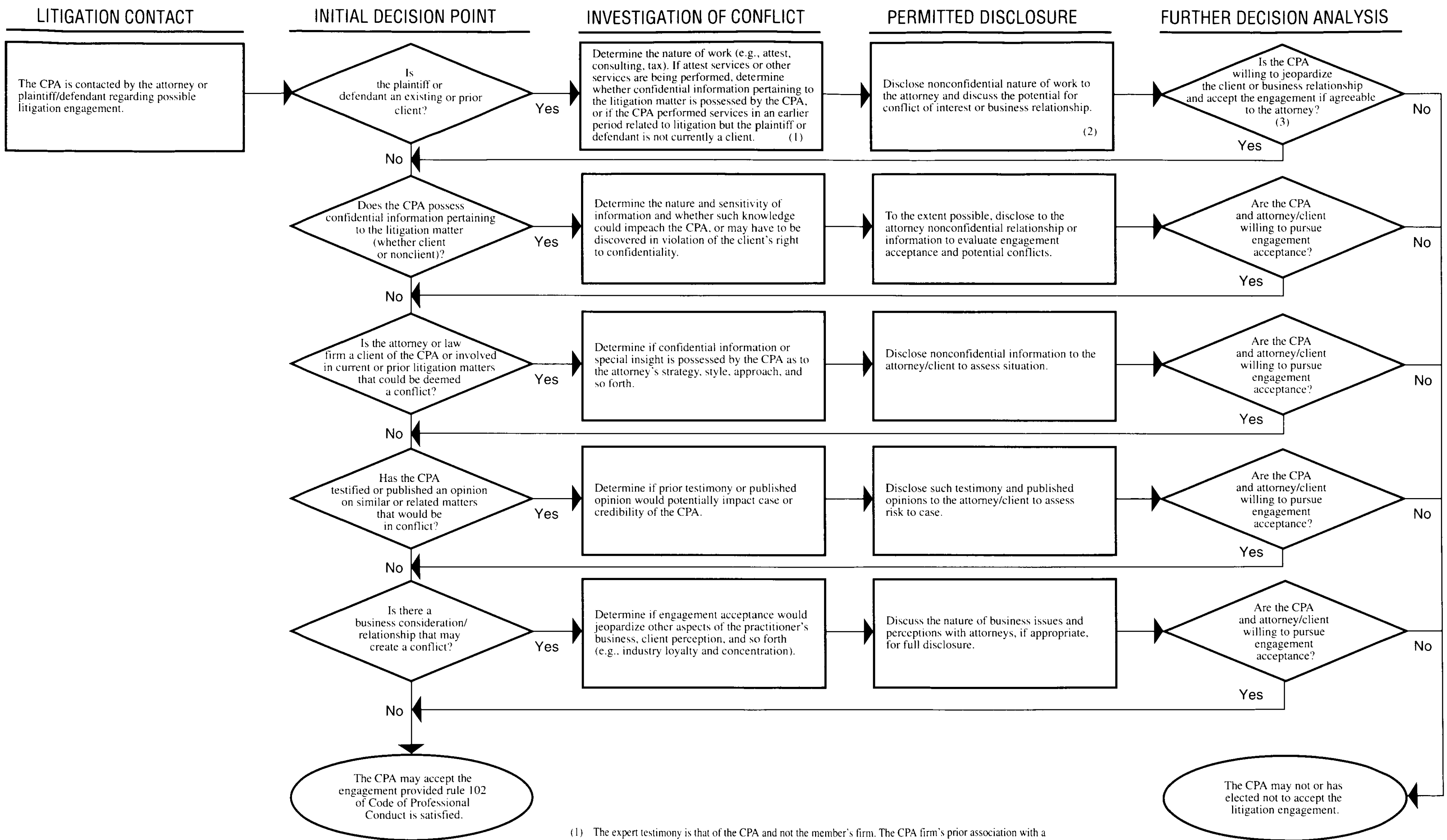
.23 The expert opinion rendered in a court of law is that of the individual not the firm. Thus, differences of opinion among a firm's partners should not automatically discredit the testimony of an expert witness. However, disclosure of the situation to client or counsel is recommended.

.24 Another potential conflict may exist when the CPA is involved in a multi-party case. For example, the CPA's existing client may be a named member of a class or group or may be providing services to large governmental entities. A definition of conflicts associated with large groups would be far too broad a guideline to be effectual. For example, a CPA who assists a client in opposing an Internal Revenue Service ruling while performing services for another government agency at the same time is unlikely to be considered to have a conflict of interest. However, it is conceivable that certain situations involving government agencies may give rise to conflicting business relationships that would, in the CPA's own judgment, preclude helping to oppose one agency while working for another agency.

72/115 SUMMARY

.01 This special report is not intended to cover all situations that may give rise to conflicts of interest or of business relationships. Its purpose is to illustrate the diversity of situations that could give rise to such problems. The nature and complexity of litigation service engagements make it imperative that potential conflicts be identified early, preferably before the CPA accepts the engagement. The CPA should discuss situations that give rise to any questions of conflicts with the client's lawyer to permit evaluation before litigation services are provided.

Conflict of Interest Decision Tree



(1) The expert testimony is that of the CPA and not the member's firm. The CPA firm's prior association with a company would generally not create any attribution of the firm's knowledge to the testifying CPA, so long as the CPA has no direct or indirect knowledge. However, such prior or current association should be disclosed to the attorney provided no sensitive information is shared.

(2) Although a CPA's firm may have a current or prior business relationship with a plaintiff/defendant through providing attest or other services, such relationships would not necessarily create a conflict of interest (provided confidential information is not possessed by the testifying CPA). However, there is likely a business or client relationship that would create a business conflict requiring the CPA to decline the engagement.

(3) Should a CPA decide to pursue litigation opposite an attest client (e.g., fraudulent conveyance litigation involving a bank), the litigation probably should not be material to the financial statements of the attest client.

VIII

Other Consulting Services

Part VIII—Other Consulting Services

75/100 Mergers, Acquisitions, and Sales

75/100 MERGERS, ACQUISITIONS, AND SALES

CONTENTS

75/100 MERGERS, ACQUISITIONS, AND SALES

75/105 SCOPE OF THIS PRACTICE AID

.01 Mergers, acquisitions, and sales can be important sources of consulting engagements because clients rarely have the expertise to conduct these activities. This is particularly true for the small business owner involved in the once-in-a-lifetime sale of a company. Even small to medium-size businesses that merge and acquire other businesses as part of their long-range plans rarely have a sufficient number of transactions to acquire a high level of expertise. However, knowledgeable practitioners are in a unique position to assist clients in this area because they often have intimate knowledge of the client's company and key personnel, as well as expertise developed through experience in prior engagements involving mergers, acquisitions, or sales.

.02 Mergers, acquisitions, and sales of companies are major undertakings. They require both operational and nonoperational expertise. Among the operational problems that need to be addressed are, for example, combining branch offices, integrating sales staffs, and consolidating production facilities while still maintaining each organization's strengths. Nonoperational aspects include analyzing financial arrangements, determining proper management structure, evaluating legal and tax consequences, and motivating key people to work for the success of the new organization. This practice aid provides information to practitioners who assist clients in merging, acquiring, or selling businesses. It focuses on smaller clients, generally closely held companies in which the owner-managers participate directly in daily operations. Larger businesses often have corporate development staffs to do what smaller owners require of a consultant. This practice aid does not discuss such aspects of mergers, acquisitions, and sales as financing alternatives or tax implications. To help practitioners understand what a specific engagement involves, this practice aid examines the broad steps a company needs to take to achieve a successful merger, acquisition, or sale. These include developing a business plan, searching the marketplace for candidates, determining the market value of companies, negotiating terms, and developing an operating plan after closing. The appendix contains a sample engagement letter and a sample checklist that practitioners may also find helpful.

75/110 DEFINITIONS

.01 The following terms are defined as they are used in this practice aid.

.02 *Acquisition.* The takeover of one company by another through purchase or exchange of shares. The acquiring company may purchase the assets or stock of the acquired company after considering tax liability and other factors. The acquiring company absorbs the acquired company into its operations and may treat it as a subsidiary or division.

.03 *Divestiture.* The selling or spinning off of one or more units or divisions of a company, usually to redeploy assets into more profitable ventures.

.04 *Merger.* (*a*) The absorption of one or more companies into another. (*b*) The combination of two or more companies into a newly created company. (This is also referred to as a *consolidation.* The terms *merger* and *consolidation* are often used interchangeably in spite of this technical difference.)

.05 There are several classifications of mergers:

- *Horizontal.* The takeover of a company in the same or a related line of work (for example, a retail shoe store chain acquiring a smaller chain in another geographical area).
- *Vertical.* The takeover of a company either "upstream" or "downstream" in the production process (for example, a retail shoe store chain acquiring a manufacturer of sports shoes).
- *Conglomerate.* The takeover of a company in an unrelated line of work (for example, a retail shoe store chain acquiring an ice cream manufacturer).

.06 *Sale.* The transfer of one company's assets to another company through an exchange of cash or other considerations. These are only a few examples of the types of ownership-transfer activities that can take place.

75/115 TYPICAL ENGAGEMENTS

.01 Companies initiate mergers, acquisitions, and sales for a variety of reasons and under a variety of circumstances. As the national economy improves, merger and acquisition activity tends to increase. Companies seeking mergers generally wish to grow and expand their markets and resources at a rate faster than can be generated internally. Businesses usually expand not merely for the sake of expansion, but rather to meet specific goals, such as broadening a product line or entering a new geographic area. Acquiring companies may also have a desire to diversify into different lines.

.02 Closely held companies may use mergers or sales for ownership transfer and management succession, particularly when no family or staff members within the business possess the financial capability or desire to succeed to ownership. Small business owners may sell their companies for estate planning purposes or may merge with another company to finance necessary capital equipment for expansion. Mergers or sales may also help companies experiencing little or no growth and losing key employees to competitors. For firms in trouble, such as those facing bankruptcy, litigation, or the unexpected death or disability of an owner, mergers or sales may also provide solutions.

.03 Companies may request a practitioner's assistance for any of the specific reasons that follow.

.04 For Mergers

(Some items are also applicable to acquisitions and sales, where noted.)

- A company wishes to carry on merger activities by using a practitioner as a third-party intermediary, in order not to disclose its intentions to competitors. (An acquiring company or a selling company may use a practitioner in the same capacity.)

- A company needs assistance in negotiating the merger terms and in evaluating the other party's position.

- A newly merged company needs assistance in combining two existing operational structures into one. This includes developing new systems and procedures, integrating two accounting systems, selecting and training accounting personnel, and reviewing and coordinating employee benefit programs. (An acquiring company can also benefit from such assistance.)

.05 For Acquisitions

- A company, particularly one a practitioner has worked with before, needs assistance in formulating a long-range plan that includes an acquisition strategy.

- A company requires an examination and evaluation of the financial stability of a potential merger candidate.

- A company needs an independent valuation of its intended acquisition to determine its fair market value. If the practitioner audits the company being valued, business considerations may require him or her to assist in selecting another practitioner or business valuator to perform the valuation.

- A company needs help in divesting portions of an acquisition that do not fit into its overall plans and growth strategy. (Consulting in the area of divestitures requires skills similar to those described in this practice aid.)

.06 For Sales

- A company requires a report on the financial stability of an acquiring company to determine the likelihood of realizing a long-term payout.

- A company needs assistance in structuring a financial arrangement to minimize tax liability.

- A company needs to be independently evaluated to determine its fair market value.

.07 In addition to a company initiating a request for assistance, a practitioner may offer the following suggestions to a client:

- A company may merge, sell out, or acquire another company as a realistic method of achieving the owner's goals.
- Through work with various companies, the practitioner may be able to match buyers and sellers and those interested in mergers.

75/120 ENGAGEMENT CONSIDERATIONS

.01 In deciding whether to accept a merger, acquisition, or sale engagement, the practitioner needs to evaluate certain engagement factors. These factors fall into the categories of general considerations, engagement staffing, engagement reporting, and practitioner-client concerns.

General Considerations

.02 Confidentiality and compatibility are important in mergers, acquisitions, and sales. Practitioners who conduct searches and preliminary negotiations usually do so in absolute confidence in order not to alert the competition or disturb employees. In addition, because many combinations are not successful in the long run, practitioners look for any tell-tale signs of incompatibility before the combination is completed. If they find indications of personality clashes, inappropriate fit between two organizations, or any other stumbling blocks that might surface later, they warn their clients during the course of the engagement. However, it is virtually impossible to predict the outcome of the combination in all cases.

.03 Attorneys and practitioners have separate but coordinating roles in mergers, acquisitions, or sales. Typically, the attorney's role relates to legal judgment and interpretation of contract documents, while the practitioner's role is that of financial and tax advisor. The two professionals need to work well together, not encroach on each other's areas, and keep the client informed about all steps in the process. Establishing a good working relationship can be a decided benefit, since attorneys and CPAs are both in positions to make referrals to each other.

.04 The varying interests within a company may not always coincide, even in a closely held business. For example, stockholders and management may be at odds if the price per share of an acquired company is influenced by the size of contracts given to management personnel who remain with the combined organization. Misunderstandings between majority and minority shareholders may also exist. In some cases minority shareholders may believe that majority shareholders will benefit from a particular financial arrangement, such as a noncompetition covenant. Consequently, the minority shareholders may feel they deserve something extra.

Engagement Staffing

.05 Because mergers, acquisitions, or sales involve numerous parties, practitioners need to remain close to the situation and be available for meetings when the schedules of the various parties permit. Additionally, negotiations often do not progress smoothly and are subject to delays. For these reasons, practitioners need to be prepared to meet on short notice.

.06 When staffing and pricing a merger, acquisition, or sale engagement, practitioners consider how much senior staff consulting time it will require. These kinds of engagements usually demand a heavy commitment from senior staff members. It is also critically important to maintain continuity of personnel from start to finish on the assignment, particularly at the client-contact level.

Engagement Reporting

.07 Throughout an engagement, practitioners and clients need to closely coordinate their efforts, with frequent informal reporting on the status of the key items. Clients may ask practitioners to document the assignment in workpapers and report on others verbally. Generally, practitioners document items that can be supported by fact, and verbally communicate subjective comments.

.08 In some cases practitioners may be unable to determine precisely the scope of an engagement, particularly at the beginning of the assignment, and they may have to redefine it after the parties have progressed further.

Practitioner-Client Concerns

.09 Understanding mergers, acquisitions, and sales requires a substantial knowledge of financial terms and tax effects. Since clients vary in their degree of financial knowledge, a client may require considerable educational support from the practitioner, which can significantly increase the fee estimate.

.10 Clients may also exhibit any of several common problems. For example, a business owner may have an unrealistic assumption about the company's worth. Practitioners can overcome this problem by explaining how to determine value and by giving examples of how other companies are valued. An owner who is selling a company may have difficulty withdrawing from the business, especially when it has been the major activity of his or her life. Because the life-style adjustment may be considerable, the owner needs to understand it thoroughly before beginning the sale process. In this way the owner may avoid the eleventh-hour remorse that frequently causes cancellations of the sale, after the practitioner has completed considerable work.

.11 Clients may not appreciate the amount of time and effort practitioners expend in a merger, acquisition, or sale engagement. Most parties don't realize how much effort goes into attending meetings, identifying strategies, answering telephone requests, and performing other time-consuming tasks. Such functions represent time spent over and above the analytical work required of practitioners. Therefore, periodic progress billings are advisable to avoid surprising the client and to maintain cash flow while the project is underway. Practitioners may also want to consider a retainer or some kind of advance payment arrangement.

75/125 ENGAGEMENT OBJECTIVES AND CLIENT BENEFITS

Objectives

.01 In a merger, acquisition, or sale engagement involving a combination, one of the most important objectives is to have a client think through the options before any agreement is finalized, in order to make certain that the combination is the most appropriate choice. This decision-making process encourages a client to consider the future. If the client decides against the combination, its management may develop a long-range plan for ownership transition within the company as an alternative. However, if a client decides to go ahead with a combination, the practitioner's objective is then to effect a successful combination in which the financial arrangements accomplish the client's goals. In the long run, the combined organization will ideally be a synergistic improvement over the two separate companies.

Benefits

.02 A client can receive numerous benefits from a successful merger, acquisition, or sale. A combination permits increased utilization of corporate resources and strategy, which enhances the resulting company by creating a greater resource base and complementary strengths. It can also provide continuity for an organization that might otherwise disappear, with the attendant loss of jobs, goodwill, and related benefits for the community. And it allows a company to quickly establish itself in a new market or geographic area without having to build an organization from scratch.

.03 For individual owner-managers, a combination can enhance personal objectives. For personnel of an acquired company, a combination can provide them with the opportunity to reach higher levels of management responsibility in the new, larger organization.

75/130 ENGAGEMENT SCOPE

.01 When undertaking a merger, acquisition, or sale engagement, practitioners reach understandings with clients to clearly define practitioner responsibilities, degree of involvement, and the time frame of the engagement. Clients may ask practitioners to provide substantial assistance by searching for suitable candidates, or they may merely require help in structuring the financial and tax arrangements of an already agreed-to combination.

.02 The extent to which clients wish practitioners to analyze another party's financial records can have a significant impact on the scope of an engagement. The impact often depends on the other party's internal and external accounting assistance and the completeness of its records.

.03 Practitioners and clients determine the reporting requirements necessary to complete an assignment. Analyzing and selecting suitable candidates generally requires documentation and submission of reports. However, if the client is actively involved in the process, the need for periodic reports may diminish or disappear as the merger negotiations proceed.

.04 The amount of assistance required after a combination can range from virtually nothing to a close working relationship with the combined organization until the accounting systems and procedures operate smoothly. Generally, postcombination work requires a new engagement understanding between clients and practitioners.

75/135 ENGAGEMENT APPROACH

.01 The approach followed in a merger, acquisition, or sale varies, depending on the client's needs, its role as a buyer or seller, and the degree of sophistication its management has in this area. The practitioner reviews each phase in the process with client management to verify that they agree on the approach taken. The practitioner may render the services described below in a single engagement or as separate engagements.

Developing a Plan for a Combination

.02 A company needs a well-thought-out business plan before considering any kind of combination. If a business plan does not exist, the practitioner explains its importance and usually assists the client in preparing one. The plan helps the client think through goals and objectives to answer such questions as "What business are we really in?" and "Where do we want to be in five years?" The practitioner and the client then develop long-range strategies and short-range tactics to achieve the business plan's goals.[1]

.03 At this point the practitioner and the client may decide that a combination is appropriate. The practitioner can help develop a plan for a merger, acquisition, or sale that addresses the following issues:

a. *Strengths and weaknesses.* Review the organization's strengths and weaknesses to determine how a combination would accomplish the client's objectives.

b. *Industry trends.* Study market information for industry trends to see if the timing is right.

c. *Compatibility.* Look for the types of businesses that would be appropriate for a combination (that is, compatible management style, business philosophy, and so on).

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[1] For information on business planning, see section 20/100, "Business Planning." Other sources are listed in the bibliography at the end of this section.

d. *Options*. Assist the client in reviewing available options. When considering an acquisition, examine the pros and cons of internal expansion as an alternative. When considering a sale, examine the alternative of internal transfer of ownership.

e. *Strategy*. If a combination seems most suitable, develop a strategy for accomplishing it, including—

- A timetable.
- Criteria desired in the company to be chosen for the combination.
- A checklist of the items to review. (See exhibit 75-2.)
- A package to attract the kind of entity the client is seeking.

Conducting a General Search of the Marketplace

.04 The next phase involves further refining the criteria for an acceptable business. (In an acquisition, for example, the size of the candidates would fit within the price range of the client company.) The practitioner then searches industry and trade association data, such as technical publications and directories, to compile a list of potential candidates that appear to meet most of the criteria established. Finders, business brokers, and others operating in this field may be used to help in the search, but the client then has to pay a finder's fee for their services. The practitioner can also establish less formal channels by using intermediaries, discussions with business associates, and so on to test the market.

.05 Generally, the list compiled is much too large for detailed analysis unless the search is for a business with unique or unusual expertise. Therefore, the practitioner and the client screen the potential candidates to reduce their numbers. They can do this by establishing a numerical rating system to eliminate all but the most likely candidates and then list those remaining in order of preference. At times this screening process may rely heavily on subjective criteria if there is insufficient quantitative data available.

Conducting a More Detailed Examination of Potential Candidates

.06 When the screening process is complete, the practitioner and the client can begin a more detailed examination by contacting the remaining candidates. Determining who makes the first contact depends on industry practice and the personalities of the parties involved. In some cases the owner-manager may wish to establish direct contact and in other cases may wish to have the practitioner act as a third-party intermediary. If the latter, the practitioner contacts candidates, secures evidence of interest, and reduces the list even further, to one or two candidates.

.07 At this point the client discloses its identity to each of the remaining candidates and meets with its owners and management to exchange financial and operating data. The practitioner cautions against revealing too much information in these early stages to avoid creating more competition if the parties fail to reach an agreement. The practitioner and client use a checklist (developed as part of the plan) to determine what information they already know and what additional information they need. Finally, the client chooses one of the candidates as the prospective combination partner.

Determining the Acquisition Candidate's Fair Market Value

.08 Once an agreement is reached, the acquiring company undertakes a limited scope study of the business it seeks to buy to determine its condition. This study is particularly important if the business has never been audited or if the most recent audit took place several months ago. Either the acquiring company's own staff or an auditor hired for this purpose may conduct the study. On completion of the study, the business to be acquired prepares and attests to a list of warranties and representations about the validity of certain key accounts. The acquiring company then establishes a range of values or a fair market selling price for the potential acquisition. The practitioner with specific industry knowledge and experience may perform the valuation. However, the practitioner and the client may wish to consult specialists in tax, equipment, real estate and other areas to determine the most appropriate business valuation.[2]

Negotiating the Merger Terms

.09 The two companies negotiate the terms of the agreement, including a satisfactory price. If the client wishes, the practitioner can aid in negotiations by explaining business and tax practices and facilitating agreement on financial aspects. The degree of a practitioner's participation can range from narrow (a very limited scope review of the financial documents prior to closing) to broad (active participation throughout the process). The practitioner consults with both parties' attorneys and other advisors to structure an agreement that accomplishes the objectives and minimizes tax liability.

.10 If the client does not wish to act as lead negotiator, its management appoints a representative to assume this role. Since practitioners have the advantage of being objective, they can be considered good candidates for this function. If practitioners act as intermediaries for their clients, they do not make management decisions, but discuss certain proposals with their clients during a break in negotiations. They can then come back with counter-offers, which can enhance negotiations.

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[2] For information on the use of specialists in consulting services engagements, see section 5/110, " Cooperative Engagements and Referrals." Guidance on business valuations is provided in section 13/100, "Conducting a Valuation of a Closely Held Business."

Developing an Operating Plan After Closing

.11 After the companies finalize the combination agreement and announce it to customers and the general public, the integration phase takes place. Both companies need to keep their employees informed of progress and, with the practitioner's assistance, to assign key individuals the task of executing a plan, including a schedule, for combining the two entities. The integration can take as long as a year, depending on the complexities involved in bringing the organizations together. The practitioner can also assist in—

- Developing management structure and procedures and familiarizing staff with them.
- Performing periodic reviews to verify that the acquiring company is meeting its financial obligations to the client seller under the terms of any extended payout provisions.
- Consolidating the accounting and administrative functions and selecting personnel for these areas.
- Eliminating duplicate functions.

75/140 ENGAGEMENT OUTPUT

.01 The output of a merger, acquisition, or sale engagement can consist of both formal and informal reports, such as the following:

- A position paper incorporating elements of the long-range plan, including the combination strategy and a timetable
- A review of and recommendations about potential candidates, with data supporting the conclusions reached
- A formal valuation study supplemented by an addendum listing the negotiating points that help support values at the upper or lower end of the scale, depending on whether the client is the buyer or seller
- Periodic reports or minutes of meetings documenting informal advice, consultation, progress, and decisions.

APPENDIX 75

ILLUSTRATIVE MATERIAL

Exhibit 75-1

Sample Engagement Letter

CPA & Co.
20 Center Avenue
Sunnyville, California 11300

Mr. Gordon Davis
1 Main Street
Sunnyville, California 11300

Dear Mr. Davis:

This letter confirms our understanding about CPA & Co.'s assisting you in a search for a suitable merger partner. The search will be based on criteria provided by you. One important criterion is a southwestern location for the company, which will enable you to expand your operations in this area.[3] Helping you find a merger partner is phase 1 of our scope of services for merger engagements. In phase 2 we offer assistance with valuation of the targeted company and with merger negotiations. If you also require a limited scope study to review and analyze the target company's books or internal control procedures, we will perform a separate subphase 2a. In phase 3 we help with postmerger activities, such as consolidating the two companies' accounting and administrative systems, to accomplish a smooth transition. This engagement proposal covers phase 1 only. If you wish to proceed to phases 2 or 3, we will submit separate engagement proposals for those phases.

In phase 1 of this engagement, we will—

- Document the criteria established for potential merger partners.
- Search industry data to develop a list of potential candidates.
- Screen the candidates and prepare a report on the five most likely prospects, describing them in order of preference and including supporting data.

We will produce two output reports during this engagement:

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[3] As noted in the text, the approach to merger engagements can vary. Therefore, this sample engagement letter deals with only three phases out of a possible six.

1. A preliminary report will list all the candidates reviewed and explain the reasons for narrowing the selection to five major ones who merit further consideration. At this point you will have the opportunity to review our selections and comment on our choices and recommendations.

2. A final report will contain a detailed analysis of the five finalists, listed in order of preference and supported with appropriate data.

If you wish, we will use our knowledge of people in the industry to make informal approaches without disclosing your identity. This will help us determine if any of the companies selected have expressed interest in merging with another company.

We expect to accomplish this work over a period of X months. During this time we will require your involvement and opinions on any of the companies selected for further study.

We base our fees on time expended at our standard rates. Our estimate for this engagement is approximately $X,XXX, plus out-of-pocket expenses. If we require more time, we will secure your permission before exceeding this estimate.

Please signify your acceptance of these terms by signing this agreement and returning one copy.

Sincerely,

____

Paul Stewart, CPA

Accepted by

____

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Exhibit 75-2

Summary Merger/Acquisition/Sale Checklist

Merger Plan

___ Identify what the combination will do for the client company.

___ Determine why the client company wants to buy/sell.

___ Estimate the timetable for the combination.

___ Develop ideas to integrate common functions.

___ Evaluate the effects of a name change.

___ Identify financial objectives

___ Evaluate the economics of a combination for the client company.

___ Develop plans for improving profits.

___ Develop a program to achieve operating benefits.

___ Establish financial and operating controls for the acquired company.

___ Determine guidelines and lines of communication for conducting discussions about the combination.

General Information About the Company

___ Obtain historical data on the business.

___ Obtain a description of the corporate structure.

___ Obtain an organizational chart.

___ Obtain a list of officers and directors (including backgrounds, affiliations, and compensation).

___ Obtain a schedule of stock distribution.

___ Obtain an employee policies-and-procedures manual.

___ Obtain names and addresses of attorneys, accountants, and consultants.

___ Obtain industry statistics for comparison.

Finances

___ Obtain financial statements, tax returns, and interim reports for the last three to five years.

___ Determine financial ratings from credit bureaus and bank sources.

___ Review the different methods of acquisition and the tax consequences of each.

___ Determine guidelines and lines of communication for conducting discussions about the combination.

___ Review accounting policies.

___ Review internal control systems in connection with a limited scope review.

___ Review books and records of the selling company in connection with a limited scope review.

___ Prepare pro forma financial records of the combined entity.

___ Obtain and review financial manuals, flow charts, and accounting systems.

___ Review collection procedures.

___ Itemize properties owned and leased.

___ Review the compatibility of existing accounting systems.

___ Review the economic outlook for the company, its products, and the industry in general.

___ Collect available financial information on similar companies for comparison.

Marketing

___ List competitors.

___ Determine the company's market share.

___ Analyze the competitive position of the company

___ List advantages and disadvantages of the company and its products compared with its competitors.

___ Document the history and trends of industry marketing experience, if available.

___ Document the advertising and sales policies.

___ Prepare a detailed organization chart for the marketing, sales, and advertising departments.

___ Determine the costs of marketing and sales.

___ List the name of the company's advertising agency and other outside marketing consultants, and document any existing fee arrangements.

___ Describe the methods of distributing the product or service.

___ List branch offices, warehouses, and service facilities.

___ List customers and their locations.

___ List geographic distribution of sales and salespeople.

___ Obtain any available market surveys.

___ Evaluate the degree of government regulation.

Data processing

___ Determine the importance of data processing to the company.

___ Calculate annual expenditures on data processing.

___ Question management about their satisfaction with the DP function.

___ Determine how many people are in the department and how it is organized.

___ Determine whether the department is operating efficiently.

___ Determine the department's efficiency by examining its organization and the number of its personnel.

Personnel

___ List employees by department.

___ Specify how many employees each department has, and describe each employee's function.

___ Examine human resources planning and management development.

___ Obtain a copy of the employee benefits package.

___ Evaluate the salary administration program.

___ Review employee skills, turnover, and vacancies in critical positions.

Purchasing

___ Obtain a description of the purchasing function.

___ Evaluate purchasing policies and procedures.

___ List the types of materials and supplies purchased.

___ List current vendors, and obtain their price lists.

___ Determine allowable trade discounts.

___ Obtain copies of purchase requisitions and purchase orders.

___ Calculate the annual cost of purchases.

Insurance

___ Obtain copies of all current policies.

___ Prepare a three-year loss experience.

___ Obtain information on any outstanding claims.

___ List any insurance changes pending or contemplated.

___ List personnel in charge of insurance activities.

___ List names and addresses of brokers and consultants.

Legal Considerations

___ Review the corporate charter, minutes, bylaws, and other legal documents.

___ List officers, directors, and stockholders.

___ List members of special stockholder/director committees.

___ Obtain names of inside and outside counsel.

___ List states where the company is incorporated.

___ Obtain copies of any union contracts and a list of the employees they cover.

___ List patents, trademarks, and service marks.

___ Develop a list of the seller's warranties and representations.

___ Review all litigation matters.

___ Review all current licenses, contracts, and leases.

___ Review all loan agreements.

___ Review the status of any brokers or intermediaries involved in the merger/ acquisition/sale process.

Operations

___ Evaluate the plant, facilities, and equipment.

___ Evaluate engineering and research facilities.

___ Review production and materials-handling procedures.

___ Determine the present and projected operating capacity in relation to the market forecast.

___ Review expansion plans and the investment required.

___ Review inventory procedures and policies.

___ Review transportation facilities.

___ Review inventory and storage facilities.

BIBLIOGRAPHY

Books

Altman, Edward I. *Financial Handbook.* New York: John Wiley & Sons, 1981.

Jenkins, James W. *Mergers and Acquisitions: A Financial Approach.* New York: American Management Association, 1979.

Keenan, Michael, and Lawrence J. White. *Mergers and Acquisitions.* Lexington, Mass.: Lexington Books, 1982.

Lee, Steven James, and Robert Douglas Colman, eds. *Handbook of Mergers, Acquisitions and Buyouts.* Englewood Cliffs, N.J.: Prentice-Hall, 1981.

McEachron, William D. "Corporate Long Range Planning." Chapter 26 in *Financial Executive's Handbook,* edited by Richard F. Vancil. Homewood, 1ll.: Dow Jones-Irwin, 1970.

Wendell, Paul J. *Modern Accounting and Auditing Checklists.* Boston: Warren, Gorham & Lamont, 1975.

____________, ed. *Corporate Controller's Manual.* Boston: Warren, Gorham & Lamont, 1981.

Periodicals

Campbell, Terry L., and Christopher R. Narvaez. "Pre-acquisition Audits." *The Internal Auditor* (April 1983): 14-17.

Coopers & Lybrand. "Checklist for Assessing an Acquisition Candidate." *The CPA Journal* (November 1982): 83-84.

Dauber, Nick, and Joel G. Siegel. "The Many Facets of NOLs in Business Arrangements." *The CPA Journal* (February 1982): 37-43.

Lewellen, Wilbur G., and Michael G. Ferri. "Strategies for the Merger Game; Management and the Market." *Financial Management* (Winter 1983): 25-35.

McDougal, Gary E., and Fred V. Malek. "Master Plan for Merger Negotiations." *Harvard Business Review* (January-February 1970): 71-82.

Mergers and Acquisitions, a quarterly periodical.

Salter, Malcolm S., and Wolf A. Weinhold. "Diversification Via Acquisition: Creating Value." *Harvard Business Review* (July-August 1978): 166-176.

Welsh, John J. "Pre-acquisition Audit: Verifying the Bottom Line." *Management Accounting* (January 1983): 32-37.