Woman CPA Volume 38, Number 1, January 1976

American Woman's Society of Certified Public Accountants

American Society of Women Accountants

The Woman CPA

JANUARY 1976 VOLUME 38, NUMBER 1

U. S. POSTAL SERVICE
STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION
(Act of August 12, 1970: Section 3685, Title 39, United States Code)

1. TITLE OF PUBLICATION: THE WOMAN CPA
2. DATE OF FILING: October 30 1975
3. FREQUENCY OF ISSUE: QUARTERLY - January, April, July, October
3A. ANNUAL SUBSCRIPTION PRICE: Members 1.50; Universities, Students 2.25; All Others 3.00
4. LOCATION OF KNOWN OFFICE OF PUBLICATION (Street, city, county, state and ZIP code) (Not printers): 327 S. LaSalle Street, Chicago, Illinois 60004 (Cook County)
5. LOCATION OF THE HEADQUARTERS OR GENERAL BUSINESS OFFICES OF THE PUBLISHERS (Not printers): 327 S. LaSalle Street, Chicago, Illinois 60604
6. NAMES AND ADDRESSES OF PUBLISHER, EDITOR, AND MANAGING EDITOR
PUBLISHER (Name and address): American Woman's Society of Certified Public Accountants and American Society of Women Accountants, 327 S. LaSalle Street, Chicago, Illinois 60604
EDITOR (Name and address): Dr. Ula K. Motekat, CPA, School of Business Administration, University of Massachusetts, Amherst, Massachusetts 01002.
MANAGING EDITOR (Name and address): None
7. OWNER (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be given.)

NAME	ADDRESS
American Woman's Society of Certified Public Accountants and American Society of Women Accountants	327 S. LaSalle Street, #737-40 Chicago, Illinois 60604

8. KNOWN BONDHOLDERS, MORTGAGEES, AND OTHER SECURITY HOLDERS OWNING OR HOLDING 1 PERCENT OR MORE OF TOTAL AMOUNT OF BONDS, MORTGAGES OR OTHER SECURITIES (If there are none, so state)

NAME	ADDRESS
None	

9. FOR OPTIONAL COMPLETION BY PUBLISHERS MAILING AT THE REGULAR RATES (Section 132.121, Postal Service Manual)
39 U. S. C. 3626 provides in pertinent part: "No person who would have been entitled to mail matter under former section 4359 of this title shall mail such matter at the rates provided under this subsection unless he files annually with the Postal Service a written request for permission to mail matter at such rates."
In accordance with the provisions of this statute, I hereby request permission to mail the publication named in Item 1 at the reduced postage rates presently authorized by 39 U. S. C. 3626.
(Signature and title of editor, publisher, business manager, or owner) Anne L. Miller, Circulation Manager
10. FOR COMPLETION BY NONPROFIT ORGANIZATIONS AUTHORIZED TO MAIL AT SPECIAL RATES (Section 132.122 Postal Service Manual) (Check one)
The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes: [X] Have not changed during preceding 12 months [ ] Have changed during preceding 12 months (If changed, publisher must submit explanation of change with this statement.)

11. EXTENT AND NATURE OF CIRCULATION	AVERAGE NO. COPIES EACH ISSUE DURING PRECEDING 12 MONTHS	ACTUAL NUMBER OF COPIES OF SINGLE ISSUE PUBLISHED NEAREST TO FILING DATE
A. TOTAL NO. COPIES PRINTED (Net Press Run)	6950	7100
B. PAID CIRCULATION 1. SALES THROUGH DEALERS AND CARRIERS, STREET VENDORS AND COUNTER SALES		
2. MAIL SUBSCRIPTIONS	6686	6866
C. TOTAL PAID CIRCULATION	6686	6866
D. FREE DISTRIBUTION BY MAIL, CARRIER OR OTHER MEANS SAMPLES, COMPLIMENTARY, AND OTHER FREE COPIES	168	123
E. TOTAL DISTRIBUTION (Sum of C and D)	6854	6989
F. COPIES NOT DISTRIBUTED 1. OFFICE USE, LEFT OVER, UNACCOUNTED, SPOILED AFTER PRINTING	96	111
2. RETURNS FROM NEWS AGENTS		
G. TOTAL (Sum of E & F—should equal net press run shown in A)	6950	7100

I certify that the statements made by me above are correct and complete.
SIGNATURE OF EDITOR, PUBLISHER, BUSINESS MANAGER, OR OWNER: Anne L. Miller, Circulation Manager

PS Form Jan. 1975 3526 (Page 1) *(See instructions on reverse)*

Editor
Dr. Ula K. Motekat, CPA
School of Business Administration
University of Massachusetts
Amherst, Massachusetts 01002

Associate Editor
Constance T. Barcelona
5677 Whetsel Road
Cincinnati, Ohio 45227

Circulation Department
American Society of Women Accountants
327 South LaSalle Street
Chicago, Illinois 60604

Advertising Sales Manager
Lansing T. Dupree
37 W. 38th St.
New York, New York 10018
Tel: (212) 239-8083

Treasurer
Anne N. Hamilton, CPA
P. O. Box 16012
Jackson, Mississippi 39206

THE WOMAN CPA, published quarterly and copyrighted, 1976, by the American Woman's Society of Certified Public Accountants, P. O. Box 389, Marysville, Ohio 43040 and the American Society of Women Accountants, 327 South LaSalle Street, Chicago, Ill. 60604. Subscription rates per year — members $1.50; students and libraries, $2.25; all others, $3.00; outside the United States, $1.50 per issue higher effective July 1, 1975 (orders for foreign mailing will not be accepted other than by airmail printed matter rates); single copies, $1.00. *Second-class postage paid at Chicago.*

Change of address notices must be sent to Circulation Department giving four weeks' notice and both old and new addresses, including zip code numbers.

All manuscripts must include a word count and the author's permission to publish. Material should be based on fact, rather than on opinion, and presented in technical writing style. Submission of material in duplicate will facilitate editorial board action.

Articles of general accounting interest, not exceeding 5,000 words, should be addressed to the Associate Editor. Manuscripts related to areas defined by special columns, containing from 600 to 1,800 words, should be sent to the appropriate department editor. Letters to the Editor should be sent directly to the Editor.

Requests for information regarding advertisements should be addressed to the Advertising Sales Manager.

All remittances for subscriptions and advertising should be sent directly to the Circulation Department. Checks should be payable to THE WOMAN CPA.

NATIONAL HEADQUARTERS

American Society of Women Accountants
327 South LaSalle Street
Chicago, Illinois 60604

American Woman's Society of Certified Public Accountants
P. O. Box 389
Marysville, Ohio 43040

The Woman CPA

January 1976 **Volume 38, No. 1**

CONTENTS

MAJOR ARTICLES

Women In The Job Interview — *". . . women think of first jobs rather than career paths and plan in terms of a few years rather than the long term."*

Integrating Audit Judgment And Statistical Sampling Decisions — *". . . statistical sampling is not a radical departure but rather a refinement of judgment sampling."*

A New Approach To Calculating Earnings Per Share — *". . . the unique worksheet format . . . facilitates both original computations and illustrations . . ."*

And Now A Brief Message From Your Local Radio and TV Accountant — *". . . accounting reports are both multiplied and accelerated by the demands peculiar to the broadcasting industry."*

DEPARTMENTS

Women in the Job Interview

Joan C. Goodrich
Detroit, Michigan

Janina C. Latack
East Lansing, Michigan

Shirley J. Roels
East Lansing, Michigan

The authors report on a survey they conducted of employer representatives while all three of them were employed as career counselors at the Career Planning and Placement office of the University of Michigan in Ann Arbor, Michigan. Even though their survey concentrated on representatives interviewing Liberal Arts and Education students, we think their findings and recommendations apply also to women students majoring in accounting.

Joan C. Goodrich is currently an Equal Employment Opportunity Specialist with the U.S. Equal Employment Opportunity Commission in Detroit, Michigan. She received her B.A. from the University of Michigan and plans to earn her M.B.A. at Wayne State University in Detroit.

Janina C. Latack is working toward an M.A. in College Student Personnel at Michigan State University in East Lansing, Michigan, and is employed as a part-time instructor at Lansing Community College. She received her B.A. from Michigan State University and has worked as an administrative assistant at the UCLA Placement and Career Planning Center.

Shirley J. Roels is currently studying for an M.A. in College Student Personnel at Michigan State University in East Lansing, Michigan. She received her B.A. from Calvin College in Grand Rapids, Michigan.

In response to Federal legislation and the Women's Movement employers have sought to hire more qualified women in recent years. As career counselors employed by Career Planning and Placement of the University of Michigan we decided to find out if women were interviewing skillfully for their expanding career opportunities.

We were prompted by questions from many of our women students who were uncertain about employment interviewing. In particular many women were concerned about the well-known "double-bind" that women face when it comes to aggressiveness: On the one hand employers are looking for a certain amount of aggressiveness and confidence in an applicant as one indication of probable success on the job; on the other hand we were asked whether aggressive women aren't often perceived as pushy and whether their self-confidence wasn't viewed negatively.

We also realized that women applicants, encouraged by the progress of the Women's Movement in expanding career opportunities, know they want a career but don't know yet how to integrate a career commitment with their plans for a personal life. In addition they were unsure about how to deal with the actual interview situation. Prospective employers may well perceive this uncertainty and wonder whether it reflects a lack of career commitment. However, because of Federal Equal Employment Opportunity legislation they may fear that more probing questions might be discriminatory. As a result communication between the woman interviewee and the recruiter may be hesitant and cause misconceptions on both sides. Since employers are actively seeking qualified women we felt that women must be able to interview successfully in order to take advantage of these expanding opportunities.

We therefore embarked on a project to determine the opinion of employers on how women were doing in employment interviews. Specifically we wanted to know: Are there any characteristics unique to women interviewees as a group? And are there any behavioral traits more common to women than men which are considered undesirable in an applicant and thus lower women applicants' chances of being hired?

We had four objectives for the project "Women in the Job Interview:"

1. Obtain feedback on employment interviewing that would help our women students prepare for productive interviews,
2. promote discussion and exchange of ideas between Career Planning and Placement staff and employers concerning opportunities for women,
3. provide assurance to employers that Career Planning and Placement was actively interested in the expansion of women's employment opportunities, and
4. encourage employers to examine their views of women as applicants.

An eight-page, open-ended questionnaire was prepared to elicit employers' comments on various issues relating to women as applicants for employment with particular emphasis on the interview situation. Of the employers who interviewed at Career Planning and Placement during the 1973-74 academic year, 50 employer representatives elected to participate in the survey.

The employers in the sample represented various segments of industry, business, government, and education. They visited Career Planning and Placement primarily to interview Liberal Arts and Education students. (The University of Michigan operates a decentralized placement system which includes separate placement facilities for the School of Business Administration and the College of Engineering. Only those employers who visited Career Planning and Placement were included in the study, though some of these employers also visited one or both of the other placement offices mentioned.)

Summary of Findings

Employers' answers about the women job applicants they interviewed illustrate a mixture of changing attitudes and traditional viewpoints toward women — both by the employers and by the women applicants. Employers are making a sincere effort to give women equal consideration and to increase the number of qualified women in their organizations. Women are becoming more aware of career opportunities and of their potential in non-traditional roles. But the process is gradual. Many women still cling to traditional ideas or have not yet begun to understand the difference between a "career" and a "job." Some employers still view women's work roles as supplementary to men's careers or as temporary. The detailed summary of findings which follows reflects these mixed attitudes.

• Employers reported that, while many women are becoming more career oriented, their career goals and plans for the future are more short-term than are men's goals and plans. That is, women think of first jobs rather than career paths and plan in terms of a few years rather than the long term. Many women are willing to make the necessary commitment to work (such as willingness to work overtime), but they draw the line short of the greater commitment required by a career (such as relocation).

• The majority of employers felt that women did not inquire about advancement and related concerns as frequently as men did. One reason cited was that women are often so concerned about finding their initial professional job that they seem unconcerned about the future and often fail to research career progression in any organization. Restrictions imposed by family responsibilities — i.e., the limitations on time and travel — were cited as reasons for not seeking advancement. Other questions not asked by women are also significant. Women, according to recruiters, do not ask about the need for overtime and relocation any more frequently than men — even though for many women there may be difficulties in this area. The women interviewees only rarely asked about the potential problem of discrimination in advancement and in interpersonal relations. Either many women are still unaware of these potential problems, or they are afraid to raise these issues in a job interview.

• Women are aware of some, but not all, of the important qualities which employers seek in applicants. For example, women seemed to recognize human relations as a marketable and necessary skill for success. Women, however, did not mention organizational/administrative skills and long-term career commitment as qualities which may make them successful in their fields as frequently as did men. Although many employers responded that women were uninformed about careers in general and unsure of their abilities and long-term direction, these problems were encountered just as frequently in male applicants. Ignorance about career development seems, therefore, to reflect lack of career knowledge and self-knowledge by all college students, rather than just women students.

• Marital status plays a crucial role in some areas of the career decision but not in others. Employers mentioned that mobility and advancement into management were often hindered by family concerns. But even though marital status was cited as affecting these areas significantly, it did not seem to have a great impact on women's attitudes toward overtime work. Most of the employers said women responded positively when asked to work extra hours; less than one in ten said women's answers depended on family concerns. Apparently then women are dedicated to working hard and long hours. However, this dedication may be tied to a particular job rather than to a career or to an organization that might require relocation.

• When asked whether there were significant differences between men's and women's conduct in interviews, most employer representatives declared that women are more nervous and sometimes less confident, but that they dress more appropriately and have decidedly better verbal skills than men. They further commented that women tend to be less aggressive (in a positive sense) or show less initiative than men. Interestingly, a minority of employers expressed the contrary view: women are more at ease and more poised in an interview and have better verbal skills than men.

• Employers' responses reflected not only their perception of women in interviews but also their attitudes towards women as applicants. For example: when asked whether there were any differences between male and female applicants in the areas of commitment to spouse and/or children or other personal commitments outside of work life, all employer representatives — male or female, business or education — reported that women applicants have more difficulty with relocation, child care responsibilities, and juggling a two-career family than do male applicants. Representatives differed, however, in their perception of the nature of the difficulty. Female interviewers viewed it as a management problem between husband and wife, whereas male interviewers thought it was the woman's responsibility to be more committed to home and family than to a career or a job and to consider the husband's career first. In other words, the male interviewers assigned the breadwinning role to the husband rather than to both husband and wife. Business representatives showed that they were more aware of changing attitudes and seemed to have more liberal attitudes themselves toward women in careers than did education recruiters who tended to maintain more of the traditional attitudes towards women in careers.

• All employers tended to view married women as more limited than single women, both in terms of geographical mobility and in the extent of their commitment to a career. They further felt that married women are at a disadvantage particularly if relocation is a necessity. When asked whether women should indicate their marital status as part of the application process, interviewers in general responded positively. This was true even though Equal Employment Opportunity legislation states that marital status may not be a factor in hiring decisions.

• Employers felt that women might have difficulties in certain areas of their organizations. Both education and business representatives mentioned supervision and management areas as well as traditionally male fields, such as manufacturing production, engineering, and the teaching of vocational education subjects as areas of difficulty. International business was also mentioned as a problem area due to lack of acceptance of women in business roles on the part of foreign colleagues. One important difference emerged here between business and education representatives: the business employers suggested that the main problem for women is lack of peer acceptance by male colleagues, whereas the education employers felt that women were not capable of handling management positions.

- Employers' responses differed somewhat according to the sex of the employer representative. The female representatives in general responded more liberally and tended to see no significant differences between the responses of men and women in a number of areas. This was particularly true in the areas of importance of a career, personal commitments (excluding spouse/children) outside of work life, women's ability to handle administrative/management positions, or women's willingness to work overtime. They also tended to express the difficulties women employees may face in work situations in terms of the need to cope with and work through the problem with co-workers and management, whereas some of the male representatives tended to feel that resolving difficulties was the responsibility of the individual woman.
- Most employers in the study seemed to be sincere in their efforts to afford women equal consideration in the employment interview and the hiring process. Many acknowledged that women's attitudes toward career employment are changing and commented that they, as employers, have re-evaluated their attitudes towards women as applicants and employees.
- Employers' advice for women entering the job market centered on strategies for interviewing and included such tips as knowing one's own abilities and needs. They advised women to have definite ideas on the kind of position sought, to research the organization prior to the interview, to know where they want to fit into the organization, to get practical experience, and, finally, to go into non-traditional fields such as computer science, accounting, engineering, or management.

Evaluation

In summary, this survey provided Career Planning and Placement staff with a substantive body of information from employers who are significant to University of Michigan women students. The results of the "Women in the Job Interview" project have been incorporated into the Women's Career Opportunities resource materials of Career Planning and Placement and are available on a browsing basis to all University of Michigan students. In addition, copies of the official report on the project were given to the Women's Studies Department and to other women's groups on the Michigan and other campuses. All employers participating in the study were provided with a copy, as were all employers throughout the US and Canada who requested it.

Career Planning and Placement staff have added to their knowledge about opportunities for women in various organizations, both from the written responses to the questionnaire and from the numerous discussions with employer representatives. The employers were extremely cooperative and welcomed the opportunity to keep the staff informed concerning their progress in the area of equal opportunity for women.

Finally, the questionnaire did encourage employers to look at their views on women in the interview situation and in the entire hiring process. This was summed up by one employer representative who commented: "Your questionnaire caused me to rethink my whole set of attitudes about women as applicants *and* employees."

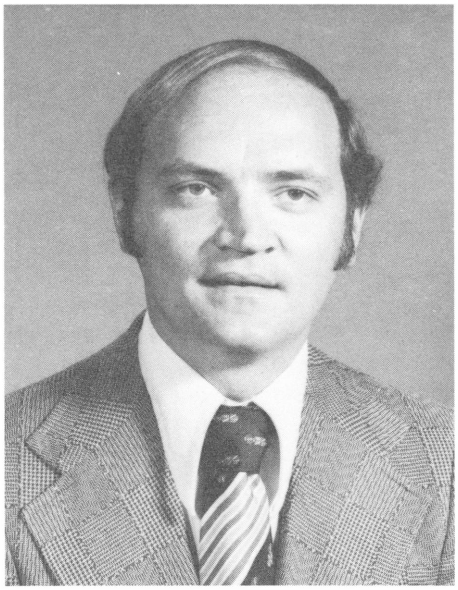
Recommendations

Based on the findings of this sutdy we have the following recommendations:

1. Counselors working with women students should inform them that, although many employers hold positive attitudes towards women and are committed to providing significant career roles for women, many of them still view women applicants in traditional terms. Federal Equal Employment Opportunity legislation and the Women's Movement have had positive effects, but equal opportunity is still far from universal. The career-oriented woman should realize that she may have to face discrimination and may have to convince some employers of her career dedication.
2. Women need help and encouragement to conduct a thorough self-analysis and to make long-range career plans. Since women have not had access to the informal information network about the world of work which has been a part of the male experience, extra efforts are needed to help them become knowledgeable. Further, since long-term career involvement is a recent development for women, counselors should help them think through career and personal life style decisions before they reach the initial employment interview.
3. Placement counselors and others who work with students frequently have the opportunity to interact with employers. These contacts provide a chance to encourage support for expanding women's opportunities and changing traditional attitudes. Our survey, for example, encouraged employers to re-examine their attitudes towards women applicants. Other possibilities include employer participation in career seminars and career days for women students.
4. Special group programs and workshops should be developed to help women prepare for job interviews. The staff at Career Planning and Placement conducts job-finding skills workshops for women which cover the basics of resume writing and interviewing skills, provide tips on how to handle the problem of discrimination in pre-employment inquiries, and help women face the problem of integrating their choice of career with their own personal life style.

In our opinion the findings of this survey can easily be incorporated into individual and group counseling efforts and help to attain the twin goals of expanding women's career opportunities and of helping women to take advantage of them. Yes, we've come a long way, but we still have a long way to go.

Integrating Audit Judgment and Statistical Sampling Decisions



Dr. Larry P. Bailey, CPA
Philadelphia, Pennsylvania

The author discusses the interrelationships between judgment and statistical sampling.

Dr. Larry P. Bailey, CPA, is Assistant Professor of Accounting at Temple University in Philadelphia. His prior experience includes teaching at Rutgers University and Virginia Commonwealth University and working as an auditor for Arthur Young and Company.

Dr. Bailey has a B.S.B.A. from Concord College in Athens, West Virginia, a Master of Governmental Administration and a Ph.D. from the Wharton Graduate School of the University of Pennsylvania, and a CPA Certificate from the state of Virginia.

Sampling is a fundamental tool employed by every professional auditor. However, many auditors employ only "judgment" sampling in their audits. Such approach relies solely upon their innate abilities to select and evaluate a sample.

Although much has been written in the past several years concerning statistical sampling, evidence available suggests that many auditors are reluctant to employ the technique. One of the findings in the relatively new AICPA quality review program was that "there was almost a total absence of the application of statistical sampling technique . . ."[1] Since the review program included professional staffs ranging from 3 to 60 members, the lack of utilization is not restricted to any particular size firm.

Some firms may be reluctant to employ statistical sampling because they view this technique as a somewhat radical departure from the more familiar judgment sampling approach. In fact, statistical sampling is not a radical departure but rather a refinement of judgment sampling. During the following discussion, it will be shown that the auditor is concerned with two types of judgment. One area of judgment is familiar to the auditor because it involves examining and evaluating audit evidence in a manner similar to that used when judgment sampling is utilized. The second area deals with terms and techniques unique to statistical sampling and for this reason the auditor may not be familiar with these items. The purpose of this paper is to show how audit judgment and statistical sampling are inter-related. With a clear understanding of this relationship, perhaps more auditors will consider using statistical sampling. Due to the lack of space, this discussion will not be concerned with the detailed procedural steps.[2]

Methodology

To achieve the objective of this paper, attribute sampling and dollar-value sampling will be illustrated. Attribute sampling will be used in the analysis dealing with the test of transactions. Dollar-value sampling will be used in the test-of-balances phase of the audit.

Test of Transactions (Compliance Test)

The second standard of field work states that:

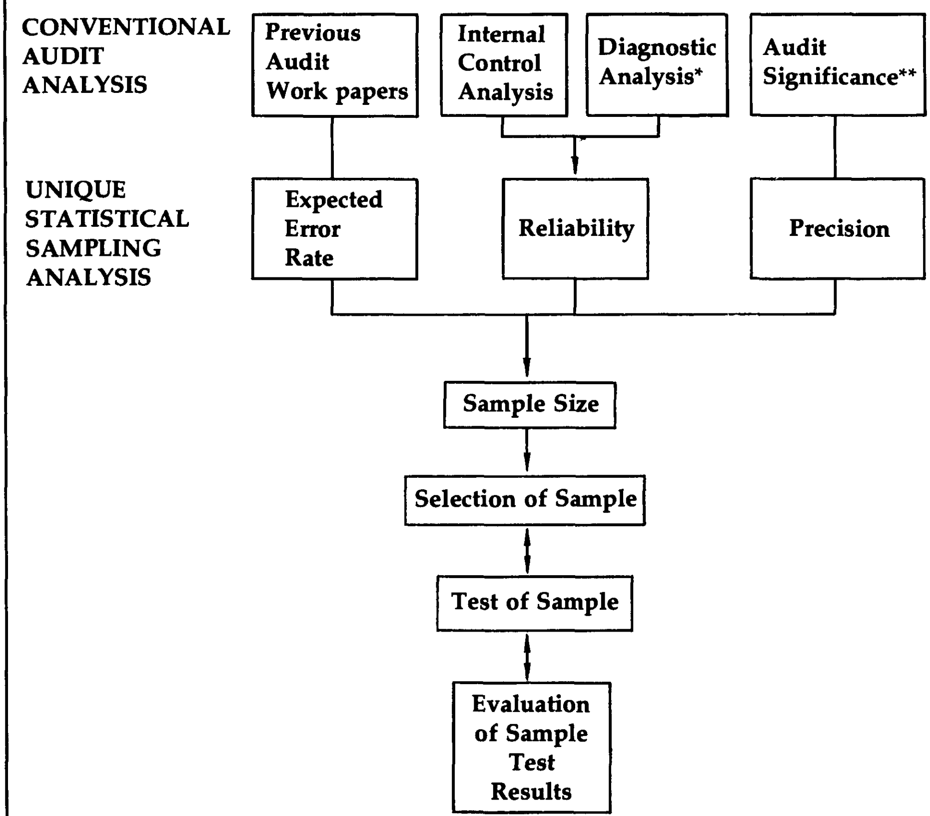
> There is to be a proper study and investigation of the existence of internal control as a basis for reliance thereon and for the determination of the resultant extent of the tests to which auditing procedures are to be restricted.[3]

Thus the auditor's objective, in part, is to determine if the accounting data is being processed in a manner that complies with the internal control system that has been described on paper. In this area the auditor is interested in the rate of compliance and not per se in the effect on the dollar amounts shown in the financial statements. This is, of course, the distinction between the test of transactions and the test of balances.

To illustrate the relationship between the normal audit judgments that must be made in the test of transactions and the statistical sampling judgments, Figure 1 has been constructed. While Figure 1 displays the entire audit approach as it relates to the compliance test, the main focus is on the first two tiers. These tiers have been labelled "conventional audit analysis" and "unique statistical sampling analysis", respectively.

Auditors who have not used statistical sampling will probably be unfamiliar with the second tier of Figure 1. The following brief definitions are needed before a more detailed discussion of the integration of the tiers can be completed.

1. *Expected Error Rate:* The estimated rate of error that exists in the audit population.
2. *Reliability:* The degree of assurance that the sample results are representative of the audit population.
3. *Precision:* The range in which the population rate or estimate is expected to fall.



**Diagnostic Analysis:* The effects of unusual and non-routine transactions, significant external factors, changing business conditions and certain overall aspects of the financial statements taken as a whole.

***Audit Significance:* The accounting records being audited, any related accounting control procedures, and the purpose of the auditor's evaluation.

FIGURE 1: TEST OF TRANSACTIONS

The first tier represents the audit analysis. As Figure 1 suggests, this analysis is the basis for the determination of the statistical sampling variables. Each statistical variable will be discussed to show the inter-relationship between the two tiers.

Selecting An Expected Error Rate. In the test of compliance, the auditor must estimate the expected error rate. Obviously this is what the auditor is attempting to determine. However, to use statistical sampling the auditor must make a preliminary estimate of this rate. As Figure 1 shows, the author probably would refer to previous audit workpapers upon which to base the current estimate. This is a common approach in judgment sampling. Agreed, this is a rather simple decision to be made by the auditor if statistical sampling is used. However, it does illustrate the link between a technique familiar to the auditor (tier 1) and the statistical sampling variable (tier 2). Furthermore, it suggests that the auditor's statistical sampling approach is very similar to the approach taken when judgment sampling is used. That is to say, an auditor would always have some "feel" for the error rate to be expected. Statistical sampling simply requires the auditor to quantify this feeling.

Selecting A Reliability Level. As suggested earlier, reliability refers to how certain the auditor can be that a sample from a population is a proper representation of the population itself. The reliability factor is usually expressed in a percentage, such as 95%.

Again referring to Figure 1, one factor that affects the determination of a reliability level is the evaluation of internal controls. This evaluation would be the result of employing such audit techniques as flow charting, completing internal control questionnaires and the like. After these techniques have been completed, it would be necessary for the auditor to formulate a judgment as to the adequacy of the internal control system. This judgment would be the basis for selecting the reliability level required by the auditor. For example, if the evaluation suggested an adequate internal control system, the reliability level could be reduced accordingly, say from 95% to 85%.

Another factor that would contribute to the establishment of the reliability level would result from the auditor's diagnostic or broad analysis of the firm. In this familiar approach, the auditor considers "the effects of unusual and non-routine transactions, significant external factors, changing business conditions and certain overall aspects of the financial statements taken as a whole".[4] For example, a business downturn would probably suggest that the auditor increase the level of reliability required. To reiterate, the audit approach does not change. To employ statistical sampling the auditor is forced to quantify her/his results and judgments.

Selecting a Precision Level. Precision deals with the degree of tolerance that the auditor can accept. For example, if the auditor believes that an error rate no greater than 6% would be acceptable, the precision would be computed by subtracting the expected error rate, say 2%, from the 6%, resulting in a precision of ±4%.

By referring once again to Figure 1, it can be seen that the definition of precision is much more dependent on the auditor's experience as an auditor rather than her/his experience as a statistician. The audit significance determines the degree of precision that is appropriate. If a particular area has a potentially significant impact on the financial statements, the auditor would want to be more precise, thus reducing the precision range. Specifically, SAS =1 explains this audit significance in terms of (a) the accounting records being audited, (b) any related accounting control procedures, and (c) the purpose of the auditor's evaluation.[5]

Completing The Test of Transactions. After the auditor has selected the expected error rate, the reliability level and the precision level, the statistical sampling approach as illustrated in Figure 1 can be completed.

Test of Balances (Substantive Test)

Unlike compliance testing, a substantive test deals with the verification of a dollar amount. In this regard the statistical technique called dollar-value estimation is applicable. For example, in the test of balances the auditor may want to investigate the balance shown in the inventory account or the accounts receivable account. Figure 2 provides an illustration of the application of statistical sampling to this phase of an audit.

Determining The Standard Deviation. This term refers to the degree of variability, measured in dollars, that comprises a population. To draw an inference from a sample, the size of the sample is dependent upon the variety of items in the population. Such a computation is extremely time consuming and for that reason a "short cut" method may be used that is both quick and simple in application.[6]

In applying statistical sampling the auditor would select a pre-audit sample of about fifty items to estimate the standard deviation. This approach is similar to the auditor's review of the population to determine the nature of the items that comprise this population.

Selecting A Reliability Level. The statistical definition of reliability is the same as discussed in the compliance test section of this paper. However, the audit factors that influence the level of reliability are different. Figure 2 reveals that the statistical sampling results from the compliance test is one factor. The adequacy of the internal control system as tested and evaluated by the auditor becomes an input into the auditor's selection of a reliability level in the substantive test. There is an inverse relationship between the two reliability levels. As the reliability of the internal controls increases, the auditor becomes less demanding in the substantive test by reducing the test of balances reliability level. This is nothing new to the auditor. The second standard of field work, as mentioned earlier in this paper, emphasizes this relationship.

One additional factor should be considered before the reliability level is established. The auditor should identify "other relevant factors" which would modify the compliance test results as they affect the substantive test's reliability level. For example, if the client has taken steps to correct deficiencies discovered at the interim test of transactions, this may have an impact upon the reliability level selected. Once again, this is the typical approach that an auditor would take in performing the test of balances using judgment sampling. The difference is that a precise level of reliability is defined.

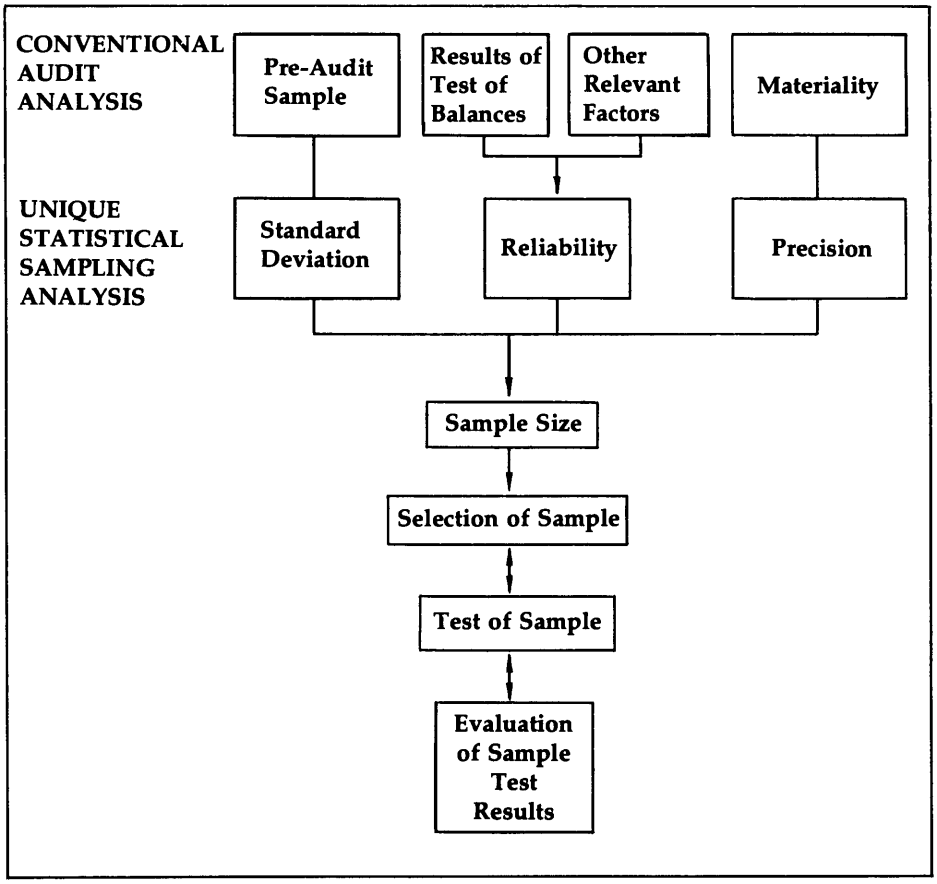


FIGURE 2: TEST OF BALANCES

Selecting A Precision Level. Once again the statistical definition of precision is constant, but in the context of the test of balances the relevant audit factors change. Figure 2 shows that materiality is the dominant factor in the establishment of a precision level. The auditor must determine the amount of deviation that would have an impact on the audit report. Thus, an overstatement of the account balance by a maximum of 10% may be acceptable to the auditor. This is one area of statistical sampling that is probably exactly similar to the judgment sampling approach. Most auditors do establish a precise level of precision during the audit.

Completing The Test of Balances. With the establishment of the standard deviation, reliability level and the precision level, the sampling approach can be completed in a manner similar to that suggested in Figure 2.

Conclusion

It is apparent from both the compliance test and the substantive test that statistical sampling provides the basis for a more defined audit approach. The approach is, however, very similar to the approach used in judgment sampling.

Furthermore, to apply statistical sampling in auditing one must meet two prerequisites. The first requirement is met by the fact that an auditor is experienced as an auditor and therefore has acquired professional audit judgment. The second requirement, the statistical expertise, must be learned. This can be done through a variety of methods including the AICPA's Professional Development Courses.

Notes

[1]Minkus, Harold B., and Peters, Phyllis E., "Two Years of Quality Review," *Journal of Accountancy*, September, 1974, p. 105.

[2]For those interested in a detail approach, see the following publications of the AICPA. *An Auditor's Approach to Statistical Sampling.* New York. Vol. 1, *An Introduction to Statistical Concepts and Estimation of Dollar Values*, 1967; Vol. 2, *Sampling for Attributes*, 1967; Vol. 3, *Stratified Random Sampling*, 1968; Vol. 4, *Discovery Sampling*, 1968; Vol. 5, *Ratio and Difference Estimation*, 1972; Vol. 6, *Field Manual For Statistical Sampling*, 1974.

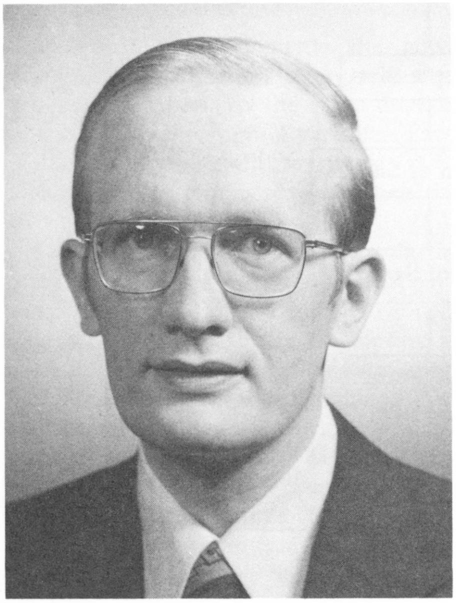
[3]*Statement on Auditing Standards No. 1*, "Codification of Auditing Standards and Procedures," (New York: AICPA, 1973). Sec. 320.01.

[4]Willingham, John A., and Carmichael, D.R., *Auditing Concepts and Methods*, 2nd Edition, (New York: McGraw-Hill, 1975). p. 195.

[5]SAS =1, op. cit., Sec. 320B.18.

[6]For an explanation of this approach, see *Handbook of Sampling For Auditing and Accounting*, Herbert Arkin, McGraw-Hill, 1963, New York, pp. 108-109.

A New Approach to Calculating Earnings Per Share



Dr. Philip J. Harmelink is Assistant Professor of Accounting at The University of Tennessee-Knoxville. He has a Ph.D. from the University of Iowa. His teaching and research interests are financial accounting and taxes. He is the author of several articles published in accounting and business journals including the Journal of Accounting Research.

Imogene A. Posey, CPA, is Associate Professor of Accounting at the University of Tennessee-Knoxville. She has an M.S. from the University of Tennessee and holds a CPA Certificate from the state of Tennessee. Professor Posey is a member of various professional organizations, including AWSCPA, and currently serves as President of the Knoxville Chapter of the Tennessee Society of CPAs and as a Vice-President of the Knoxville Chapter of the NAA.

Dr. Philip J. Harmelink
Imogene A. Posey, CPA
Knoxville, Tennessee

The authors describe a worksheet they devised to aid in the calculation of earnings per share.

Since the issuance of *APB Opinion 15* in 1969 one of the more difficult accounting topics to understand has been Earnings Per Share (EPS). The Opinion and other informational and interpretive sources invariably present examples in "segments" and therefore readers seldom get to see a comprehensive illustration. Further, no *efficient* method for calculating EPS is ever presented.

The intent of this article is to illustrate a different, more efficient approach to solving comprehensive EPS problems — an approach that should be of assistance to practitioners in staff training or professional development programs. The cases or examples in this article, which include numerous essential points, also cover many of the types of problems and questions actually arising as a result of the ambiguities of the Opinion. The approach would also be useful as a basis for computerization of EPS calculations — something that is done in practice, especially by companies with complex capital structures.

Although this article covers or reviews many of the more important points of *APB Opinion 15* essential for coverage at varying levels for different purposes, instructors or discussion leaders will want, of course, to supplement this article with the reading of the Opinion and probably some additional interpretive material.

Format

The format used in the illustrations is a worksheet approach. This approach is convenient both for original calculations and for illustation of different alternatives and assumptions. The step-wise method used is necessary in order to determine whether a particular common stock equivalent or security is "dilutive," i.e., decreases EPS.

The worksheet is divided vertically into four sections: use of the assumed proceeds from assumed exercise of stock options and warrants; adjustment of earnings (E_i); adjustment of the number of shares (S_i); and consecutive EPS_i figures necessary to determine dilutiveness of individual items.

The basic data used in the illustrations are given in Table 1. Three cases (Table 2) are illustrated in this article. Note that Cases 2 and 3 have changes in order to cover additional points and refinements.

The Illustrations

The description of Case 1 is more detailed than that of the remaining two cases because the latter descriptions include only an account of the changes that were made in order to illustrate very specific points.

Case 1 A good opening point is to explain that pre-Opinion 15 EPS would be — labeled EPS_1 in this article and equal to \$1.83 in this case [\$880,000 (E_1) divided by the weighted average number of shares outstanding of 480,000 (S_1)]. This is done to determine whether there is 3% or greater dilution in subsequent EPS_i calculations.

The next step in discussion of the problem would be the term "common stock equivalent" (CSE); which is "a security which is not in form a common stock but which usually contains provisions to enable its holder to become a common stockholder and which, because of its terms and the circumstances under which it was issued, is in substance equivalent to a common stock" (*APB Opinion 15*, paragraph 25). Included for consideration as possible CSE's are stock options and warrants, convertible debt, and convertible preferred stock.

Stock options and warrants are always CSE's *except* that it should be explained that if the exercise price is greater than the market price, options and warrants should not be assumed to be exercised because such an assumption would be antidilutive.[1] In Case 1, the market price ($27) is above the exercise price ($23) which makes the assumed exercise dilutive. Actually, where there is a low net income (Case 3) or a net loss, assumed exercise of stock options and warrants can be antidilutive even where average price is greater than exercise price.

In Case 1, the assumed exercise of the options gives rise to a new earnings (E_2) through interest savings on assumed retirement of the long-term nonconvertible debt and the convertible debt.[2] S_2 is the result of adding to S_1 the number of shares issued from the assumed exercise of the stock warrants less the number of treasury shares acquired. E_2/S_2 gives us our EPS_2 which is less than EPS_1, making the stock warrants dilutive. The difference between primary and fully diluted EPS_2 relative to stock options or warrants is due to the assumption of a higher year-end market price of common stock as compared to the average market price (*APB Opinion 15*, paragraph 42). In addition, for fully diluted EPS, where we assume *retirement* of convertible debt ($1,200,000), a smaller amount is left to be *converted* ($800,000).

In determining whether the convertible securities are CSE's, we must apply the 66 2/3% rule. If the yield rate of interest *at time of issuance* is less than 66 2/3% of the prime rate of interest at time of issuance, then the security is a CSE (*APB Opinion 15*, paragraph 33). The convertible debt is not a CSE for primary EPS because 4% is not less than 66 2/3% of 5%. It is assumed that the 4% convertibles were issued at par which makes the nominal rate of interest equal to the yield rate of interest. Because the convertible debt is not a CSE and therefore not assumed converted for primary EPS, we have no adjustment to E for any interest savings or any adjustment to S. However, for fully diluted EPS, any convertible security is treated as if it were converted if it is dilutive. Therefore, there would be an adjustment in E to arrive at E_3 and an adjustment to S to arrive at S_3 and a new EPS_3 which is lower than EPS_2 making the convertible debt dilutive for fully diluted EPS.

DATA FOR THE THREE CASES

Long-term nonconvertible debt (7½%)		$ 400,000
4% convertible debt (issued at 100 on 1/1/70 when prime rate of interest was 5%; each $1,000 bond can be converted into 20 common shares)		$2,000,000
6% convertible preferred (20,000 shares, $100 par, issued on 1/1/71 at $120 when prime rate of interest was 6%. Each share is convertible into 5 common shares)		$2,000,000
Common stock, shares outstanding at 1/1/75		420,000
Common stock, shares issued on 4/2/75		80,000
The company had 200,000 warrants outstanding. Each warrant could be exercised for one share of common stock at a price of $23.		
Average market price of common stock for 1975	$27	
Market price of common stock at 12/31/75	$30	
After-tax net income for 1975		$1,000,000
Income tax rate		40%
Interest on government securities		8%

Required:

Case 1. Compute primary and fully diluted EPS from the above information for 1975.

Case 2. Repeat (1) assuming that the 4% convertible debt is 6% and the prime rate of interest is 7%.

Case 3. Repeat (1) assuming a net income of $200,000.

The preferred stock is not a CSE because $6 divided by $120 is 5% which is not less than 66 2/3% of 6%. The effect of this for primary EPS is that dividends were deducted to arrive at E_1, whereas for fully diluted EPS, because all convertibles are treated as if they were converted, the dividends (savings) have to be added back to arrive at E_4. Also, for fully diluted EPS, there is an effect on S. *If* the preferred stock were a CSE, preferred stock would, of course, be given the same treatment in primary EPS as described for fully diluted EPS. In Case 1, the convertible preferred stock is dilutive for fully diluted EPS because EPS_4 is less than EPS_3.

Each item considered in Case 1 is dilutive. It is helpful to mention the "3% rule" whereby both primary and fully diluted EPS must be at least 3% less than pre-Opinion 15 EPS in order to be reported unless more dilution is anticipated in a subsequent period (*APB Opinion 15*, footnote 2). In other words, in Case 1, primary and fully diluted EPS would have to be less than $1.77 in order to be reported.

Case 2. In Case 2, we changed the 4% convertible debt to 6% convertible debt and the prime rate of interest at the time of issuance to 7%, which means that the convertible debt is still not a CSE. But the convertible debt is now antidilutive in the fully diluted EPS calculation to arrive at E_3; i.e., EPS_3 is greater than EPS_2. Therefore, the additions to convert from E_2 and S_2 to E_3 and S_3 must be excluded in arriving at E_4 and S_4. The assumed preferred stock conversion for fully diluted EPS is still dilutive since EPS_4 is less than EPS_2.

Case 3. The third case has the same assumptions as Case 1 except for a lower reported net income of $200,000. Here even the assumed exercise of stock warrants is antidilutive since EPS_2 is greater than $EPS1$. Therefore, the adjustments to E_2 and S_2 must be eliminated in testing whether the convertible debt and convertible preferred stock are dilutive for *fully diluted* EPS. (The latter two securities are

SOLUTIONS TO EPS PROBLEMS

		Case 1		Case 2		Case 3	
		Primary	Fully Diluted	Primary	Fully Diluted	Primary	Fully Diluted
Assumed proceeds (200,000 x $23 each)		$4,600,000	$4,600,000	$4,600,000	$4,600,000	$4,600,000	$4,600,000
Application of proceeds:							
Acquisition of treasury stock (1)		$2,700,000	$3,000,000	$2,700,000	$3,000,000	$2,700,000	$3,000,000
Retirement of 7½% L-T nonconvertibles		400,000	400,000	400,000	400,000	400,000	400,000
Retirement of convertible debt (remainder of proceeds)		1,500,000	1,200,000	1,500,000	1,200,000	1,500,000	1,200,000
		$4,600,000	$4,600,000	$4,600,000	$4,600,000	$4,600,000	$4,600,000
Adjustment of net income:							
Reported net income		$1,000,000	$1,000,000	$1,000,000	$1,000,000	$ 200,000	$ 200,000
Preferred stock dividends		(120,000)	(120,000)	(120,000)	(120,000)	(120,000)	(120,000)
	E_1	$ 880,000	$ 880,000	$ 880,000	$ 880,000	$ 80,000	$ 80,000
Interest on L-T nonconvertibles [$400,000 × 7½% x (1 − 40%)]		18,000	18,000	18,000	18,000	18,000	18,000*
Interest on convertible debt retired (2)		36,000	28,800	54,000	43,200	36,000	28,800*
	E_2	$ 934,000	$ 926,800	$ 952,000	$ 941,200	$ 134,000	$ 126,800*
Interest on convertible debt converted [remaining convertible debt × interest rate × (1 − 40%)]			19,200		28,800*		48,000* (7)
	E_3		$ 946,000		$ 970,000*		$ 128,000*
Preferred Dividend Savings			120,000		120,000		120,000
	E_4		$1,066,000		$1,061,200		$ 200,000
Adjustment of shares:							
Weighted average no. of shares, S_1 (3)		480,000	480,000	480,000	480,000	480,000	480,000
Exercise of warrants (200,000-100,000) (4)		100,000	100,000	100,000	100,000	100,000	100,000*
	S_2	580,000	580,000	580,000	580,000	580,000	580,000*
Convertible debt (conversion) (5)			16,000		16,000*		40,000* (7)
	S_3		596,000		596,000*		520,000*
Convertible preferred stock (6)			100,000		100,000		100,000
	S_4		696,000		680,000		580,000
EPS_1 (E_1/S_1)		1.83	1.83	1.83	1.83	.17	.17
EPS_2 (E_2/S_2)		1.61	1.60	1.64	1.62	.23**	.23**
EPS_3 (E_3/S_3)			1.59		1.63**		.25**
EPS_4 (E_4/S_4)			1.53		1.56		.34**

* This item is excluded from succeeding E and S calculations, since the CSE or security under consideration was antidilutive.

** This figure would not be reported since it is antidilutive.

(1) Primary EPS: (500,000 shares × 20% limitation) × $27; Fully diluted EPS: (500,000 shares × 20% limitation) × $30.
(2) Amount of convertible debt retired × interest rate × (1 − tax rate).
(3) 420,000 + (9/12 × 80,000).
(4) 200,000 shares from the exercise of warrants minus (500,000 shares × 20% limitation).
(5) [($2,000,000 minus convertible debt retired)/$1,000] × 20 shares.
(6) (20,000 shares × 5).
(7) Since previous adjustments are antidilutive, it must be assumed that there is no retirement of convertible debt. Therefore, the full amount of debt is used in this adjustment.

not CSE's for primary EPS.) In considering the effect of the convertible debt on E_3 and S_3 (with elimination of the adjustments to arrive at E_2 and S_2), one adds the convertible debt adjustments directly to E_1 and S_1 instead of to E_2 and S_2 in order to arrive at E_3 and S_3. EPS_3 is larger than EPS_1 and therefore the convertible debt is also antidilutive. In calculating E_4 and S_4 to consider whether the convertible preferred stock is dilutive, the adjustments will be added to E_1 and S_1 (because adjustments to arrive at E_2, E_3, S_2, and S_3 are eliminated). EPS_4 is greater than EPS_1, indicating antidilutiveness of the convertible preferred stock also. Thus, the assumed exercise of the stock warrants, the convertible debt, and the convertible preferred stock (the latter two considered only for *fully diluted* EPS) are all antidilutive and EPS_1 would be the reported figure. The solution to Case 3 shows that the step-by-step procedure in our worksheet format is an effective and desirable approach.

Other factors might cause antidilutiveness. Even with a higher income (say $1,000,000 as in Case 1), a higher interest rate on the convertible debt or a lower conversion rate for either bonds or preferred stock could cause antidilutiveness.

Concluding Comments

In addition to the unique worksheet format which facilitates both original computations and illustrations, the cases illustrate many specific points with just one set of data. The cases include pre-Opinion 15 EPS calculations; stock warrants with ending market price of stock greater than the average price for treasury stock acquisition purposes and the accompanying 20% rule; convertible debt and convertible preferred stock; calculation of a yield rate of interest different from the nominal rate of interest; an income tax rate other than 50% to more clearly illustrate the net-of-tax savings; and the weighted average calculation of the number of shares for the denominator. Many of these individual points arise in practice although they are seldom given attention in examples in informational and interpretive sources.

For additional illustrations, instructors or discussion leaders could increase the number of cases by including other things — all within the same format. For example, one could have two issues of convertible debt and all convertible debt could be assumed to be CSE's or convertible preferred stock could be assumed to be a CSE. These changes can be made with only minor changes in the data. One could illustrate that most items are antidilutive when a net loss is shown. Introducing the issuance of a convertible debt during the current year, or an even more challenging actual conversion of a convertible security during the current year would provide ample opportunity for expanding the problem to the degree desired by the instructor.

The format would facilitate computerization of EPS calculations and thus would have the advantage of providing an opportunity for the instructor to explain to practitioners that some large companies do computerize their EPS calculations — that computerization may, in fact, be the most feasible way of calculating EPS for companies with complex capital structures.

Another advantage of the illustrations in this article is that the problem(s) can be adapted to fit the needs of different types or levels of practitioners. For example, if an instructor is working with practitioners who are concerned with EPS calculations for purposes of general understanding only, he or she would cover only the basics of this problem (probably only Case 1). If the instructor is working with those involved with EPS calculations for corporations with complex capital structures, he or she could include all of the material covered in this article or introduce other variations which may be important into the format described in this article.

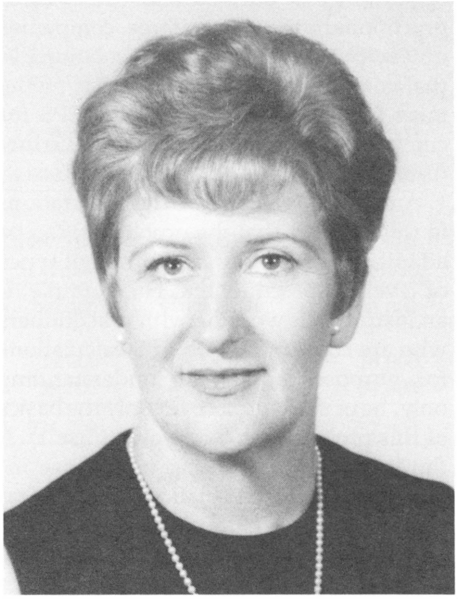
The authors wish to express their appreciation to Dr. Bradley J. Schwieger, The University of Tennessee-Knoxville, for his helpful comments and suggestions.

Notes

[1]There are some other requirements as well, such as: issuance must be exercisable within five years (*APB Opinion 15*, paragraph 57) and market price must have exceeded the exercise price for "substantially all of three consecutive months ending with the last month of the period to which earnings per share data relate" (*APB Opinion 15*, paragraph 36).

[2]Paragraph 38(b) of *APB Opinion 15* regarding the order of the assumed use of the proceeds from the assumed exercise of the options or warrants is confusing. It appears that the order after assumed retirement of 20% of outstanding shares is retirement of short-term borrowings and long-term borrowings. These long-term borrowings include any long-term debt to the extent that the debt may be retired. "Debt is eligible to be retired when it either may be "called" or is trading and could be purchased in the market" (*Unofficial Accounting Interpretations of APB Opinion No. 15*, paragraph 77). Since any long-term debt can be retired, this *does* include convertible debt, both CSE's and other potentially dilutive securities; therefore, in general, it should be assumed that all convertible debt is retired before proceeds are invested in government securities, and this is the assumption in the present article.

And Now a Brief Message from Your Local Radio and TV Accountant



Ruth H. Doumlele
Richmond, Virginia

The author highlights some of the unique features in accounting for a broadcasting station.

Ruth H. Doumlele served for several years as the Business Manager of WXEX-TV and WLEE-Radio in Richmond, Virginia, until she had to resign recently for reasons of health.

Ms. Doumlele holds a Certificate in Commerce with a concentration in accounting from the University of Richmond. She is a member of the National Association of Accountants, American Women in Radio and Television, and the American Society of Women Accountants. She is presently serving her second year as President of the Richmond Chapter of ASWA.

Floors shine. Stains vanish from a T-shirt. A cartoon stomach flutters in waves of hideous hues (color them nausea) — all close on the paws of little dogs and cats scampering after pet foods. WCPA, your local TV station, is making money. Even though the intended audience may be out in the kitchen peeling cheese from a refrigerator package, the cats will still meow "chow-chow-chow" and the pup will chase a miniature chuck wagon until it vanishes into the cabinetry. The moment passes, but the advertising revenue remains.

Corner billboards, the sides of the local buses and the backs of the taxicabs all assure the observer that the DINN radio station has the latest news, the most popular music and the most interesting personalities. A salesman boasts of its huge listening audience to his clients. During broadcasting hours each pause between records and each break for news or weather is filled with urgent entreaties to buy the best car at the lowest price, to make a deposit at the advertiser's bank and get a free wig, or to purchase furniture before leaving on the honeymoon. The radio station, like its TV counterpart, is making money, too.

Meanwhile, back at the broadcasting studio, the business manager, or station accountant, sits behind a desk that would make a perfect prop for an upset stomach commercial, because accounting reports are both multiplied and accelerated by the demands peculiar to the broadcasting industry.

Initially an application for a license must be filed with the Federal Communications Commission (FCC). This application must set forth the intent of the broadcaster in the areas of newscasts, community involvement, commercial load to be broadcast (minutes of commercial announcements per hour) and compliance with federal requirements, such as those of the Office of Equal Employment Opportunity. The business manager has the responsibility of assisting upper management in fulfilling the commitments made, once the license has been granted. If commitments are ignored the station may be deemed to be in violation of FCC regulations and its license may be removed, or subsequent license renewals may not be approved.

Unique Accounts

In lieu of inventory accounts a broadcasting station's ledger contains such accounts as Film Contracts, Program Rights, and Trade Sale Proceeds. The fixed assets, in addition to the usual accounts, contain towers, a transmitter, transmission lines and studio and technical equipment.

Income categories include local time sales, national time sales, network income, production and talent income, and trade and barter sales. Barter sales are derived from commercial TV time given in return for shows, such as Lawrence Welk and That's The Way It Was. Trade sales are commercial announcements given in return for goods or services used by the station, such as prizes or travel cards. The value of the air time is not always considered equivalent to the service or goods traded. In these cases air time may be given in the ratio of two to one, or two dollars of air time in return for one dollar of service or goods. Separate customer accounts must be kept on this type of transaction, since the air time is written down to the fair cash value for book purposes. All trade and barter sales are offset by charges to the appropriate expense accounts.

Expenses are usually departmentalized into such cost centers as Program and Production, Sales and Advertising, Technical and Engineering, and General and Administrative.

Income

Time is the primary product for sale by a broadcasting station. Unfortunately, time that is not sold cannot be stored until next week's redoubled sales effort or moved at a year-end clearance sale. Unsold TV or radio time is comparable to empty seats on a commercial airliner on a regularly scheduled flight. It is gone forever and with it the revenue it might have produced.

Commercial air time is sold to advertisers, either direct or through an advertising agency, in ten-second, thirty-second or sixty-second increments. The cost "per spot" is usually determined by the number of units purchased, based on a published rate card. Rates may be increased or decreased depending upon numbers of viewers or listeners. This information is furnished by independent research groups and is based upon surveys made in the market (community). Two popular methods of applying rates, in comparison with other stations in the market, are CPM's (cost per thousand), used mostly in radio, and TRP's (total rating points), used in TV.

Cost per thousand is computed by dividing each thousand of listeners into the cost per spot for a particular part of the day. For example: if the morning news delivers (has) 78,000 adult listeners and is sold for $85 per spot, then the cost per thousand would be approximately $1.10. This method can also be applied to television. For instance: if All In The Family, seen during prime time, delivers 290,000 viewers in the market and the cost per spot is $580, then the cost per thousand viewers is around $2.

Total rating points, on the other hand, are percentages of viewers rather than numbers of viewers. Each rating point is a percentage of the total homes in the market. The rating points are determined by independent research groups. If a rating point has a value of $13 and a TV station has 27 rating points, then the cost per spot would be $13 x 27, or $351.

Information provided by demographics forms the basis for all bargaining between the station and an agency wishing to make a buy in the market.

Local sales to advertisers are generated by the local sales staff. Inducements by savings and loan institutions, ballyhoo for the gigantic clearance sale of furniture, the pitch for a neighborhood restaurant chain, and the incessant advertising of regional breweries are all typical of regional sales. They comprise approximately 60% of the commercial time and tend to cluster around "drive time" (6-9 a.m. and 4-7 p.m.) hours for radio and prime time (evenings) for television.

Time sales for nationally advertised products are arranged by agencies in the larger cities, such as J. Walter Thompson, the largest agency in the world. These sales are usually handled by a sales representation company, known as the "national rep." Viewers across the United States all know the names of highly competitive detergents and personal hygiene products. Though sometimes in questionable taste, such advertising is designed for high impact and staying power and reflects optimum merchandising talent.

Network sales are announcements included in national programs, news or features. Stations are also obligated, through license applications, to air a certain amount of free public service announcements (PSA). These announcements have no dollar value on the station's books. They are nevertheless tabulated to verify FCC compliance. These PSA's include the familiar "cancer's warning signals," those ominous discouragements to smokers, and seasonal community chest fund promotions.

After the daily broadcast log has been performed on the air, the spots run are posted to the advertising customer's order. The advertiser is billed on a Standard Broadcast Month basis for all spots run through the last Sunday in each month. An affidavit of performance, notarized and verifying that the announcements were broadcast as scheduled, may be furnished with the bill. Recognized advertising agencies may be allowed a 15% agency commission, deducted from the gross amount of the bill. The agency is then responsible for collecting from the advertiser and submitting the net amount to the broadcaster.

Expenses

Subsequent to the completion of the monthly sales journal computations must be made for advertising agency commissions, national rep commissions, local sales people's commissions and talent fees to be paid. In addition music license fees, program rights, film amortization and regular depreciation must be computed. If film contracts are negotiated allowing unlimited runs, the cost is amortized straight line over the life of the contract. If runs are specifically outlined in the contract, they are amortized 60% for the first run, 30% for the second run, 10% for the third run, and nothing for all other runs. Insurance expense allowance must cover such categories as business interruption (protection when the station goes off the air and based on estimated earnings) and broadcaster's liability (libel and slander) arising out of dissemination or utterances of defamatory material. After these and other usual elements of expense have been recorded, a financial statement is prepared.

Evening Newscast

Many different kinds of costs may be involved in televising a news program. Salaried news personnel film and write the stories using station transportation, cameras and raw film stock. Later the voice-overs are recorded, the film is processed and delivered to the show's producer, i. e. Mary Tyler Moore. The producer must make certain that the set is in order and that the appropriate slides are ready. The logs must indicate the exact times for the commercials to be broadcast. The videotapes are loaded onto the reels, ready for insertion into the program at the exact tenth-second logged. In the newsroom last minute bulletins are ripped from the news services and network TWX machines. The personalities (i. e. Ted Baxter and Walter Cronkite) inspect make-up for the last time, the weather forecaster tears off the latest weather reports, the studio camera operators stand ready, the engineer checks the monitors, and the director begins the count in seconds to air time.

Business Manager's Functions

Deodorant commercials guarantee that the user will remain fresh under the most harrowing circumstances. There are times when the accounting office of a broadcaster would be an apt testing area. And if composure cannot always be spritzed on, where better could the reaction time to various aspirins be proved?

Composite weekly logs of the station's broadcasts must be sent to the FCC where they are checked for conformity with government guidelines. The FCC monitors commercials to be sure that claims made by the advertisers are legal and reasonably realistic.

A yearly financial statement must be submitted to the FCC, together with reports on the implementation of various federal requirements. License fees are computed and paid to the FCC on a formula based on the highest rate for a spot per the current rate card.

In addition certain records must be retained and must always be available for the FCC Inspector.

Do you have anything for a headache?

Budget forecasts and projections are

(Continued on page 28)

Education

More College Women Majoring in Accounting: The Numbers and Some Reasons

Dr. Loudell O. Ellis, CPA, CMA
University of Alabama in Birmingham
Birmingham, Alabama

GUEST WRITERS: This column is the work of Marilyn Weston and Dr. Joseph P. Matoney, Jr., CPA.

Ms. Weston recently completed her M.S. in Accounting at the University of Rhode Island where she worked as a graduate teaching assistant. She is currently employed as a staff auditor with Ernst & Ernst in Providence, Rhode Island, while working on getting her CPA Certificate.

Dr. Matoney is Assistant Professor of Accounting at the University of Rhode Island. He received a B.S. and an M.S. from Duquesne University and a Ph.D. from The Pennsylvania State University. He holds a CPA Certificate from the state of Rhode Island.

Over the last few years educators have noted that more and more women are entering collegiate schools of business. The study of accounting has received an influx of women that is even higher proportionately than that of business schools as a whole. This article reports statistics on the increase in the number of women receiving accounting degrees nationally and the results of a questionnaire of reasons for studying accounting given by women accounting majors at one university. The questionnaire answers given by the women are compared to those given by their male classmates. The results should be of interest to everybody concerned with accounting education.

While the percentage of degrees in business conferred upon women increased from 8.5 percent in 1966 to 10.5 percent in 1973 (as shown in Table 1), the percentage of women in the other business degree categories increased less than one percent. It can be concluded that much of the increase in the percentage of women receiving business degrees occurred in the field of accounting. These figures would seem to indicate that barriers against women in accounting may finally be starting to break. Some of this increase is no doubt attributable to the passage of the Fair Employment Practices Act in 1964 and its subsequent enforcement on behalf of women by the Equal Employment Opportunity Commission.

The increase in the number of women receiving degrees in accounting has been accompanied by a simultaneous increase in the total number of college degrees and of business degrees conferred in *all* subjects. The effect of the post World War II baby boom was particularly apparent in 1968-1969 (see Table 2). The number of business degrees conferred increased at a dramatic rate over the past six years, and the increase in accounting degrees received by women was even higher.

Review of the figures in Table 2 indicates that during the years 1967 to 1971 the increase in the percentage of degrees in accounting did not keep pace with either the general trend for all conferred degrees nor the even more pronounced increase in total business degrees. Since the proportion of women receiving accounting degrees showed large increases during this period, accounting did not get the proportionate increase in males that other fields received. In 1972 and 1973, while the percentage increase in total accounting degrees rose to 12.2 and 12.8 percent, respectively, the increase in the percentage of women receiving degrees in accounting rose 20.9 and 31.4 percent, respectively. The figures show conclusively the female proportion of students receiving accounting degrees is on the rise.

The Reasons

Organizational behaviorists tell us that what motivates a person toward a given decision is a highly individual matter. While the carrot and the stick may well vary for each individual, including an individual's decision regarding a choice of

Table 1
Percentage of Degree Recipients in U.S. Who Are Women: 1966-1973

Year	All Business	Non-Accounting Business Degrees	Accounting Degrees
1966	8.54	9.36	5.94
1968	9.04	9.59	7.15
1970	8.96	8.98	8.87
1972	9.50	9.36	10.01
1973	10.54	10.24	11.70

Source: U.S. Department of Health, Education and Welfare academic major, it is important to accounting educators, employment recruiters, and guidance counselors to see if certain useful generalizations can be made.

In an attempt to shed light on this subject, a survey was made of junior level undergraduate accounting majors at the University of Rhode Island (URI) in May 1975. Seventeen female and forty male undergraduates were asked to rank in order of importance eight factors as to that factor's degree of influence on their decision to major in accounting. These eight factors were derived from informal discussions with other faculty members, recruiters, graduate students and undergraduate students. While not exhaustive the eight factors listed in Table 3 represent a majority of reasons why students choose a college major.[1] The results of the rankings by each group according to mean average response rates are shown in Table 3.

A comparison of these rankings indicates some interesting results. While some factors were ranked the same by both groups, a number of differences were noted. Those factors that influenced each group to the same degree were interesting and challenging courses (ranked second) and influence of a family member or friend (ranked sixth). Teacher or guidance counselor's influence was ranked eighth by men and seventh by women, and the desire for a specialized business background was ranked fourth by men and fifth by women. Ranking of the most important factors are summarized in Table 4.

These rankings suggest that the women tested are more concerned with finding a job, particularly one that is interesting, challenging and allows them to utilize their quantitative abilities. This may tie in with Professor Rayburn's suggestion of a continuing lack of opportunity and/or social acceptance for women in more technical quantitative fields such as engineering.[2] While women are primarily concerned with finding a job, men are most influenced by the salary factor in their choice of accounting as a major.

While these generalizations cannot be applied to every individual, they are representative of the two groups tested. Kendall's Coefficient of Concordance was utilized as a test of the homogeneity of rankings within each group. This test, fully explained in Siegel,[3] permits a test of the homogeneity of rankings between the members within each group by testing the null hypothesis that the rankings could have developed from chance. The values of Kendall's coefficient were sufficient to

(Continued on page 22)

Table 2
Annual Increase in the Percentage of Undergraduates in the U.S. Receiving Degrees 1967-1973

Year counting	All Degrees	Business Degrees Total	Accounting	Women in Accounting
1967	7.06	9.74	3.91	14.47
1968	12.89	15.43	15.18	25.68
1969	14.60	17.62	11.66	25.54
1970	8.25	12.32	5.80	16.83
1971	5.32	8.70	3.48	8.86
1972	1.87	5.61	12.23	20.89
1973	2.02	3.85	12.84	31.35
Total Increase 1966-1973	63.83	95.26	85.37	215.52

Source: U.S. Department of Health, Education and Welfare.

Table 3
Mean Average Ranking of Factors Influencing Choice of Accounting as a Major

Men	*Women*
1. Salary potential	1. Availability of jobs
2. Courses interesting and challenging	2. Courses interesting and challenging
3. Availability of jobs	3. Quantitative orientation aptitude with numbers
4. Desire for a specialized business background	4. Salary potential
5. Quantitative orientation aptitude with numbers	5. Desire for a specialized business background
6. Influence of family member or friend	6. Influence of family member or friend
7. Prestige of professional status	7. Encouragement of teacher or guidance counselor
8. Encouragement of teacher or guidance counselor	8. Prestige of professional status

Table 4
Summary of Most Important Factors Influencing the Choice of Accounting as a Major

	Men	Women
Salary potential	1	4
Courses interesting and challenging	2	2
Availability of jobs	3	1
Quantitative orientation	5	3
Desire for a specialized business background	4	5

Table 5
Distribution of Male and Female URI Undergraduate Juniors by GPA
June 1974

Grade Point Average	Male	Female	GPA % Grouping that is Female
3.5 and above	23%	65%	48%
3.0-3.49	35	18	14
2.5-2.99	17	12	18
below 2.5	25	5	7

Electronic Data Processing

Using Contracted Computer Services

Dr. Elise G. Jancura, CPA
The Cleveland State University
Cleveland, Ohio

Often companies need to use the speed and power of computer processing but do not have enough demand for such services to justify the investment in a computer and its supporting organization on their own premises.

The Range of Contracted Computer Services

There is a great variation in the kinds of contracted computer services available. They are purchased for a variety of reasons. Sometimes these services are used by small firms that cannot justify the investment in time and resources to maintain their own center but that can benefit from the use of computerized processing if that processing can be purchased in sufficiently small units. In contrast, many large organizations with their own computer center and staff purchase certain specialized services from outside sources when the applications involved are not suited to their own in-house computer center.

There are many organizations available that offer computer services on a contract basis to those who need access to computers but cannot install their own. These range from situations in which all services — programming, operations, and the availability of the computer itself — are provided by the service organization and the user supplies only the data to those instances where the hardware and all supporting personnel are physically located at the user site but are managed by an outside service organization.

Contracted computer services can be provided by organizations formed exclusively to provide those services, or they can be provided by equipment manufacturers (usually through a division or subsidiary of the manufacturing firm), by banks, by CPA firms, or by other financial service organizations. Sometimes computer services are offered by firms with large installations having excess capacity and sufficient skills to enable them to attempt to recoup some of their costs through sale of that excess capacity.

Facilities Management

The type of contracted service that is probably closest in nature to the installation of an in-house computer and employment of the support staff necessary to run that computer is a type of service that has come to be known as facilities management. In this environment the computer center is physically located on the premises of the user organization. The hardware may or may not be paid for by the user. The staff, however, including both systems design and programming personnel and operating personnel, are employees of the service organization employed and controlled directly by the user.

This kind of arrangement is frequently used by companies that feel that they do not have the necessary technical expertise to develop and manage the computer services and do not wish to take the time nor expend the resources to develop that expertise. Yet the company usually has a sufficient volume of activity and need for computer services so that the total expenditures of an in-house installation are economically justified. Thus a contract with the facilities manager to operate and manage the company's internal data processing function can provide the advantage of an in-house location, with its immediate accessibility, while at the same time freeing the user's management from the potential drain on management time related to having to oversee the day-to-day supervision and control of the data processing function.

The concept behind the use of facilities management is not much different from that in other areas of special expertise that are frequently purchased on a contract basis, such as legal services. In some cases the facilities management arrangement involves only operational responsibility for the center. In other instances it includes the entire data processing function from systems design through programming and day-to-day operations. Facilities management has gained popularity as the complexities of processing systems have increased, as the variety of available equipment and programming packages has complicated the choice of equipment and procedures, and as many managements have come to feel that they have not received maximum benefit from their computer facilities because of less than optimum management of these facilities.

The potential advantage prompting a firm to make use of a facilities management arrangement is the expectation that specialists in the management and control of computer services can produce a better use of the resource per dollar invested. The user's management retains the same responsibility it has with an in-house installation of determining the objectives to be obtained by the processing resource, determining the total expenditure that will be allocated to that resource, and exercising such control over the information system as necessary to insure its accuracy. These are, of course, the same responsibilities that management has under any circumstances, and the user organization simply delegates to the facilities manager such authority as is necessary to implement the objectives defined by the management.

Service Bureaus

In a service bureau environment a service organization installs on its own premises computer equipment (and other appropriate data processing equipment) and processes the client's data on the service bureau's premises with its own equipment. This type of service is probably more suitable than the facilities management approach for smaller clients. A service bureau serves many customers with its equipment and programming personnel, enabling it to spread the cost of its organization and equipment over many potential users. Thus it is economically feasible for a small user to buy access to that equipment and programming personnel as needed, with a cost that is much lower than would be required if the organization were to install its own facility.

The fact that processing is done at a site remote from that of the user introduces into the control process the necessity for procedures to prevent loss of information through the transmission to and from the service bureau. Further, since the data is now handled by two completely separate groups of personnel, steps must be taken to insure adequate communication between the staffs involved, so that there is a mutual understanding of the processing to be employed, of the type of data to be handled, and of the controls to be observed. The user retains the responsibility for establishing the basic description of the processing to be performed, for defining clearly and completely the data to be collected and processed, and for defining the reports and other results to be produced. While it is the service bureau's responsibility to implement the system specified by the user (by taking the user's specifications and translating them into a systems design, writing the individual programs required, and testing the system), it is the user's responsibility to evaluate that system when it has been developed and to notify the service bureau of its acceptability or its unacceptability.

To avoid any misunderstandings or subsequent difficulties, the user and the service bureau should execute a detailed agreement as to the processing required, the terms upon which the service will be provided, the provisions to be made for any file conversion or other special conversion service, and the procedures by which design and programming specifications can be changed over a period of time. The latter item is one that is quite important and is frequently overlooked. No system, however well designed, can exist over a period of time without the need for some changes. If the user is to have continued good service, arrangements must be made for incorporating those changes as they arise. Further, to protect the user, control must be exercised to prevent any unauthorized changes or interference with the user's processing from occurring subsequent to the initial testing of the system.

The fact that processing is done in an off-site location with non-user personnel imposes a need for additional controls beyond those that normally address themselves to the transmission of data from one physical location to another and from one control group to another. Most processing done by service bureaus is done on a batch mode basis, so that, for the most part, these additional controls take the form of control totals, batch totals, and record counts accompanying the data to the service bureau and accompanying the return of results from the service bureau to the user. In addition, the multiplicity of customers in the service bureau suggests that additional attention should be paid to the procedures by which the service bureau guarantees the confidentiality of the records and programs of individual customers.

In some instances arrangements are made by the service bureau user to send original or nonmachine-readable data to the service bureau, and part of the service performed is the transcription procedure by which machine-readable records are produced. In other instances the user assumes the responsibility of converting the data to machine-readable form and transmitting those machine-readable records to the bureau. Similarly, the service bureau in some instances sends back to the client only finished reports and retains at the service bureau location the permanent master files of the client. In other instances both reports and master files are returned to the client firm for storage at its location. Sometimes the service bureau designs a specially tailored processing system for the user. In other instances the user makes use of certain standardized programs already available at the bureau for a smaller fee. The result is a reduced cost or charge from the service bureau, however the user needs and/or data formats must be tailored to fit those of the standardized packages maintained by the service bureau.

A variation of the standardized package is the development of standardized subpackages or subprograms for certain processing functions. The user can then select from a group of these subprograms or application modules those that fit the firm's particular processing needs. In this way the user gains the benefit of a semitailored system and still has the benefit of the economic savings involved in using standardized packages.

Standardized Prewritten Programs and Rental of Machine Time

A third approach to the use of contracted computer services occurs in those instances where a firm has its own equipment installed and employs its own operational and programming support staff but minimizes the systems design and programming costs by making use wherever possible of standardized prewritten programs. All installations do this to some extent, for all installations make extensive use of the service and utility programs provided by the equipment vendor, but an increasing number of service organizations have turned to the area of developing standardized solutions to application problems.

Many organizations offer payroll programs, bill-of-material processors, data base management programs, billing programs, and classroom-scheduling programs. The use of this kind of contracted service really represents no change at all to the auditor as she/he attempts to evaluate the adequacy of the computer operations from those concerns that exist in any other user maintained and operated computer environment. Assuming that the user firm exercises adequate care in defining its needs and in selecting a package that is carefully tested and documented, the control concerns are no different from those that exist when the installation is developing and programming its own application programs. By being willing to do its processing in a standardized, predefined way the installation normally can purchase one of these programs at a cost less than it would take to develop a program and test the application with its own programming staff.

Still another form of purchased computer service that really introduces little additional control requirement is the process by which a business simply rents computer time on a computer other than one installed at its own premises. In this situation the user provides the programs (either by programming or buying prewritten packages) and employs the operating personnel to execute the programs and other operating procedures. The only distinction is that the computer itself is at some off-site location and that the user pays only for those hours in which the system is actually being used. Thus there is no question of a third party, with the potential of third-party interference, but there is the additional function of having to transport data to and from the off-site processing location. Occasionally this arrangement is used by an installation that has insufficient volume to justify the kind of system that it wants to use for the few hours in which it requires processing. On the other hand, this arrangement is sometimes used by organizations that have their own on-site facilities but rent additional hardware for overloads or special processing requirements.

Time-Sharing Services

A form of contracted computer service that has grown in popularity in the last few years is that of the time-sharing service. In a time-sharing arrangement some communication terminal (usually a relatively low-volume interactive terminal although occasionally the user may have a high-speed batch device) is installed on the user's premises for communication with a centrally located computing facility. The user firm prepares and transcribes into machine-readable form its own data and frequently provides its own processing programs. The service organization provides the central processing facility and central storage capacity to hold master files and user programs in an on-line library facility. Frequently the time-sharing service also maintains a library of standardized programs at the center that is available on call to all users. From the time-sharing service organization's point of view, the entire system appears as a real-time on-line system. From the user's point of view, however, the system appears as a batch-processing system with an input-output device represented by the terminal at the user's location and a high-speed sophisticated computer with relatively large amounts of on-line available memory and on-line program library facilities at the central location.

The programming and hardware resources that the time-sharing service organization must have available are quite complex and sophisticated, for they must be prepared to respond to any user at any time, making available any facility of the system to which that user legitimately has right of access. At the same time the time-sharing facility must prevent access to the files or programs of any other user. The user can schedule access to the system, whether the facilities are used in an interactive mode (interactive mode means that the user can transmit information and receive an immediate response from the central system) or in a batch mode in which the user transmits a group of data. The user may call on a standard program existing in the time-sharing center's central library, a user program from the user program library (which is stored in the central facility), or a program that the user retains at the user site in source-or-object form.

If adequate assurance can be given as to the reliability of the central system and its supporting software packages (including the controls instituted to protect the confidentiality of individual user's programs, libraries, and data files), the control problems faced by the user are quite similar to those in a typical installation where the staff and equipment are located within the user's own organization. In a time-sharing environment the service facility does not directly handle or process either the user's programs or the user's data — it simply provides the processing facility. The user prepares and inputs the data, the user selects and controls the execution programs, and the user determines the content and scope of the processing done both to provide operating reports and to perform maintenance and updating of the master files.

Time-sharing service organizations lend themselves very well to the concept of third-party review, for under normal circumstances services provided for users are quite standardized. The advantage to the small user or the large user with specialized need is economic. The user gets access to a powerful, sophisticated computer for a small part of the cost of maintaining a terminal and communication facility.

Control Considerations in Using Contracted Computer Service

Both the user and the provider of contracted computer services share the responsibility for insuring that the data is both accurate and complete and has been processed according to the specifications established when the original service agreements were established. It is the user's primary responsibility to determine the kinds of processing required to produce results that are appropriate to the user's need. In most instances the user is also responsible for originating and collecting the data that will subsequently be used by the contracted service, and under those circumstances only the user can insure its accuracy. This responsibility falls on the service organization only in those instances where part of the service provided is the original capture of transaction data. The service organization is responsible for providing those controls necessary for accurate processing of data received from the client and, in those instances where the service organization performs the original data collection, for providing those procedures that will capture all data and verify its accuracy.

The introduction of contracted services represents a division of processing responsibilities for the control procedures between the user and the supplier of these contracted services. Essentially, additional controls must be instituted to insure that the transfer of data from one party to the other does not result in any distortion of that data nor loss of it. Thus additional checking is introduced for both the user and the supplier of contracted services to guarantee against that loss. The user must establish sufficient controls on the data before sending it to the service organization so that the results returned from that service organization can be reconciled to the data originally furnished. These transmission controls can take the form of control or batch totals, document counts, copies of the source data from which the transactions are recorded, or transaction logs. The exact form will depend somewhat upon the form in which data is transmitted to the service organization.

In some instances the user organization will actually transcribe the input into machine-readable records itself, in which case a transaction log or control totals may be appropriate. In other instances the user transmits source data, and it is the service organization that does the transcribing. Under those circumstances some combination of control totals and copy of source documents is more appropriate than the user's record of information sent to the service organization. Once the input is received by the service organization, it should be subjected to immediate balancing, so that the service organization can establish a record of the information received both for purposes of reconciling the controls held by the user and also for purposes of providing subsequent controls for the processing to be performed on that data. Sometimes the service organization does extensive editing of the data, whereas in other cases it simply uses machine-readable records as they are transmitted. In any event, it is usually the user's responsibility to correct errors in the data, although both the user and the service center frequently share the responsibility for detecting these errors.

The division of responsibilities created by the contract relationship also suggests that periodic reports be made to the user regarding the contents of master files. Frequently these master files are maintained by the service organization, which uses transactions submitted by the user to perform updating operations and to produce reports that are returned to the user.

Under these circumstances the service organization should submit to the user periodic reports showing the current contents of the master files and a summary of changes made to them. The traditional techniques for checking master files are periodic print-out and reviews or periodic tests against physical counts or other external evidence.

The procedures implemented to detect errors and to insure their proper correction represent another area of extreme importance. The user and the computer service should establish precise and carefully defined procedures for recording errors and controlling their correction and resubmission. These procedures represent a combination of activities on the part of both parties. The techniques mentioned earlier, such as consistency checks, limit checks, self-checking digits, and control totals can be used to identify errors. Once the errors are identified, they must be corrected by whichever party has adequate information to do so. Frequently this means return of the erroneous data to the user for correction. It is important that logs be kept of the error items returned to the user for correction and resubmitted by the user for processing. The need to detect and correct errors is not novel under contracted services, but the fact that there are two parties complicates the process and requires formalized procedures to prevent either loss or duplication of these error items.

In addition to the many control procedures that are instituted to handle the data itself, there are certain processing procedures that can influence the adequacy of results. Some of these are procedures that apply to the specific application. Others are procedures that apply to the general processing environment that influences all applications. Most of the processing controls apply primarily to the service organization, although some must be considered by the user's organization as well. Where possible, it is desirable within the user's organization to maintain a proper separation of responsibilities. Thus it is preferable that the individual who reconciles control totals and data received from the service center be someone other than the individual who prepares the source documents or other data to be transmitted to the service center. Further, the user should definitely assign responsibility for periodic review of the master files or control information sent from the service organization on the master files. The individual assigned this responsibility also should be someone other than the person generating the original source data. While this separation of responsibility is desirable, it should also be recognized that frequently the user of a service organization is a small firm without adequate staff to provide for optimum separation.

Even where it is not possible properly to separate responsibilities between individuals, it is essential that the user have some formalized process for authorizing transactions and other changes to the master file information. Similarly, as mentioned in the preceding section, the client should have some formal procedure for reconciliation of output received from the service organization and for control of the distribution of that output.

It is should be emphasized that the kinds of controls necessary for accurate data do not change because the computer service is contracted rather than provided inhouse. Because of the potential confusion introduced by the separation between the user and the supplier of the computer services, however, it is important that relationships be formally defined, responsibilities be formally listed, and that additional procedures be introduced to effect the transfer of information from one authority to another.

Financial Statements

The Income Statement After APB Opinion No. 30

Dr. Clara C. Lelievre, CPA
University of Cincinnati
Cincinnati, Ohio

APB Opinion No. 30 gave the income statement new dimensions. It superseded parts of earlier opinions and completed the work of the APB on the reporting of operations. The income statement of a decade ago was expanded in format and content. This column explores some of the most visible changes. The reader is advised to obtain copies of the APB opinions mentioned from the AICPA for in-depth study.

Background

The purpose of the income statement is to present results of operations in conformity with generally accepted accounting principles. There has been a diversity of views on the contents and format of the statement, particularly as to whether extraordinary items and prior period adjustments should enter into the determination of the net income of the period in which they are recognized. Under one viewpoint, designated *current operating performance*, the principal emphasis is upon the ordinary, normal, and/or recurring operations of the entity during the current period. Under the other viewpoint, designated *all inclusive*, net income is presumed to include all transactions affecting the net increase or decrease in equity except transactions of a capital nature and the distribution of dividends.

APB Opinion No. 9 concluded that net income for a period should reflect all items of profit and loss recognized during the period except for certain prior period adjustments. "Those rare items which relate directly to the operations of a specific prior period or periods, which are material and which qualify under the criteria described . . . should . . . be reflected as adjustments of the opening balance of retained earnings." Extraordinary items should be segregated from the results of ordinary operations and shown separately in the income statement, with disclosure of their nature and amounts.

Financial reporting practices after Opinion No. 9 indicate that it has been difficult to interpret the criteria for extraordinary items and significant differences of opinion exist as to the application of certain of its provisions. This is evidenced by the large number of footnotes, occurring in the 1973 and later financial statements, regarding the comparability of financial statements due to the application of the new provisions of APB No. 30.

APB Opinion No. 11 required that in reporting the results of operations the components of income tax expense for the period should be disclosed and allocated to (1) income before extraordinary items and (2) extraordinary items. They should be presented as separate items in the income statement. As other major captions were added to the statement by later Opinions, the requirement of intraperiod tax allocation for each section did not change.

APB Opinion No. 15 dealt with earnings per share and required that the computation of earnings per share should be consistent with the presentation of the income statement called for in previous opinions. Thus, it might appear that earnings per share should be presented for each of the major statement sections.

APB Opinion No. 20 made its contribution to the statement by adding another major caption, *Cumulative effect of a change in accounting principle.* The board concluded that most changes in accounting should be recognized by including the cumulative effect in net income of the period of the change, based on a retroactive computation, when changing to a new accounting principle. In a few specific instances changes were to be reported by restating the financial statements of prior periods. The amount of the cumulative effects when the statements are not restated should be shown in the income statement between the captions "extraordinary items" and "net income."

In the years following the issuance of these opinions, the APB became concerned not only with the problems of interpretations surrounding ordinary and extraordinary items but also with "the varying accounting treatments accorded to certain transactions involving the sale, abandonment, discontinuance, condemnation, or expropriation of a segment of an entity" *(Opinion No. 30*, para. 2.). Evidence mounted that the usefulness of the income statement would be enhanced if: (1) the results of the continuing operations of an entity were separated from the operations of the entity which has been or will be discontinued, and (2) the gain or loss from disposal of a segment was reported in conjunction with the operations of the segment and not as an extraordinary item.

Opinion No. 30, effective for events and transactions occurring after September 30, 1973, listed as its purposes: (1) to provide more definitive criteria for extraordinary items, (2) to specify disclosure and reporting requirements for extraordinary items, (3) to specify the accounting and reporting requirements for disposal of a segment of a business, and (4) to specify disclosure requirements for other unusual or infrequently occurring events and transactions that are not extraordinary items.

FASB Statement No. 4 made minor changes in Opinion No. 30 by specifying the treatment of gains or losses incurred by the retirement of debt. It specified that gains or losses from debt retirement be reported as extraordinary items and not in the operating section of the statement.

The Income Statement Format

Exhibit I illustrates the income statement in its new format; not all businesses will need all four sections. Applicable income taxes are disclosed in each section. Earnings per share data should be shown on the face of the statement for: (1) net income from continuing operations, (2) the cumulative effect of changing an accounting principle, and (3) net income.

Continuing Operations

Income from continuing operations consists of: (1) revenues and expenses from normal profit-directed activities, and (2) certain gains and losses. In some instances the latter were previously classified as extraordinary items. *Opinion No. 30* placed severe limitations on items that could be considered as extraordinary by stating that certain gains and losses *should not* be reported as extraordinary since they are usual in nature or may be expected to recur as a consequence of customary and continuing business activities. The examples given of those types of items that are to be reported in the continuing operations section were:

> (a) Write-down or write-off of receivables, inventories, equipment leased to others, or intangible assets.
>
> (b) Gains or losses from exchange or translation of foreign currencies, including those relating to major devaluations and revaluations.
>
> (c) Gains or losses from sale or abandonment of property, plant, or equipment used in the business. (This does not include gains or losses on, or the future provision for losses on, disposal of a segment of a business.)
>
> (d) Effects of a strike, including those against competitors and major suppliers.
>
> (e) Adjustment of accruals on long-term contracts.

A material event or transaction that is unusual in nature or occurs infrequently, but not both, does not meet the two criteria for classification as an extraordinary item (discussed later) and must be reported as a separate component of income of continuing operations. Its nature should be reported on the face of the statement or explained in the footnotes. However, income taxes applicable to such gains or losses are not disclosed separately. Earnings per share is computed for the income from continuing operations.

Discontinued Operations

We now have, for the first time, clear guidance for reporting operating results and gains and losses for a segment of business that has been or will be discontinued. The phrase *segment of a business* refers to a component of a business whose activities represent a separate major line of the business or a class of customer. A segment may take the form of a subsidiary, a division, or a department; but its assets, results of operations, and activities should be clearly distinguishable from the other assets, results of operations, and activities of the entity.

Comparative financial statements, or the current statement if comparative amounts are not shown, that include the results of operations of the segment being discontinued must report the results of operations of the segment, together with applicable income taxes, as a separate component of income. An examination of Exhibit I discloses that the operating results of the discontinued division are separated from the gain or loss, or expected loss, on disposal of the division. If the disposal has not been completed, the anticipated loss on disposal must be estimated. Such a loss is provided in the income statement of the period that includes the date on which management commits itself to a formal plan to dispose of the segment. (Gains on disposal are reported on the face of the statement; if they are anticipated, they might be shown in a footnote.)

Provision for an estimated loss requires that an estimated liability be reported in the balance sheet. Kaufman & Broad, Inc., included the following footnote to its Balance Sheet dated November 30, 1973:

The Opinion does not require that earnings per share data be reported on discontinued operations. It states that, if such information is presented, it may be included on the face of the statement or in a related note.

Extraordinary Items

The effects of events or transactions that occur infrequently and are of an unusual nature are segregated from the results of the continuing, ordinary, and typical operations. Such separation prevents the user from having to make independent judgments concerning the likelihood of the recurrence of such items. To be classified as extraordinary items two criteria must be met: they must be both *unusual in nature* and *infrequent in occurrence* when considered in relation to the environment in which the entity operates. Descriptive captions, the amounts, and the nature of the individual extraordinary events or transactions should be presented, preferably on the face of the income statement. If such is impractical, disclosure in a footnote is acceptable. Applicable income taxes must be shown.

We now have explicit guidance on interpretations of: "*unusual in nature*" and "*infrequency of occurrence.*" To quote from Paragraph 20 of *APB Opinion No. 30:*

> (a) *Unusual in nature* — the underlying event or transaction should possess a high degree of abnormality and be of a type clearly unrelated to, or only incidentally related to, the ordinary and typical activities of the entity, taking into account the environment in which the entity operates.
>
> (b) *Infrequency of occurrence* — the underlying event or transaction should be of a type that would not reasonably be expected to recur in the foreseeable future, taking into account the environment in which the entity operates.

The net investment, after the provision for loss on disposal, included in the consolidated balance sheet as of November 30, 1973, for the Company's discontinued mobile home operations consisted of the following:

Current Assets		$10,387,000
Property		4,642,000
	Total Assets	15,029,000
Current Liabilities		4,527,000
Estimated future costs:		
Operating losses		2,250,000
Other		1,650,000
	Total Liabilities	8,427,000
Net Investment		$ 6,602,000

The specific activities of an entity must be considered in determining ordinary and typical activities. The environment includes such factors as the characteristics of the industry, the geographic location of its operations, and the nature and extent of governmental regulations. An event or transaction may be unusual in nature for one entity but not for another because of the environmental differences.

Determining the probability of recurrence of an item should take into account the environment. For one entity the probability of recurrence might be remote, while for another there might be a high chance of recurrence. For example, the risk of damage to a citrus crop in Florida from frost or a hurricane might be high since such events occur with some regularity. On the other hand, the risk of damage to those crops from a hailstorm might be small because of the infrequency of occurrence. An event or transaction that occurs with some frequency in the entity's environment cannot be considered extraordinary regardless of its financial effect or the fact that it is beyond the control of management.

The presentation of earnings per share data is not made clear as the Opinion states that, "it may be desirable to present earnings per share data for extraordinary items." This appears to leave the decision up to the statement preparer.

Cumulative Effect on Prior Years of Changing an Accounting Principle

Opinion No. 30 made no changes in reporting a change in accounting principles. *Opinion No. 20* covers changes in accounting principles in detail.

Conclusion

Opinion No. 30 answers many questions about reporting and disclosure of disposals of a business segment and extraordinary items, but it also raises some new questions. Will the new criteria for extraordinary items be easier to apply than those of *Opinion No. 9?* When a business is to be sold, will the premature disclosures have significant adverse effects on the seller because of the deterioration of employee relations and the reactions of customers, suppliers, and potential buyers? Will the operating results from ordinary operations be blurred by the inclusion of nonoperating gains and losses? Will the basic definitions for "unusual" and "nonrecurring" be ignored in cases other than debt retirement? These and other questions may require interpretation by the FASB.

The XYZ Corporation Income Statement Format EXHIBIT I
For Year Ended December 31, 19XX

Continuing operations:			
Revenue from normal operations	XXXX		
Less: Expenses	XXX		
Income from normal operations	XXX		
Gains/losses	XX		
Income from continuing operations before income taxes		XXX	
Provision for income taxes		XX	
Income from continuing operations			XX
Discontinued operations (Note):			
Income/loss from operations of discontinued Division W (less applicable income taxes of $________)		XX	
Loss on disposal of Division W, including provision of $________ for operating losses during phase-out period (less applicable income taxes of $________)		XX	
Net income/loss from discontinued operations			XX
Extraordinary items:			
Detail of nature and amount of items (less applicable income taxes of $________) (Note)			XX
Cumulative effect on prior years of changing an accounting principle:			
Detail each change (less applicable income taxes of $________) (Note)			XX
Net Income			XX

(Earnings per share *must* be shown on the face of the statement for income from continuing operations, the cumulative effect of changing an accounting principle and net income. Earnings per share *may be* shown for discontinued operations and extraordinary items.)

NOTE: Nature and detail of items must be disclosed in footnotes.

Education

(Continued from page 15)

reject this null hypothesis at the .001 level of significance for both men and women.

One of the more interesting sidelights of the survey concerned the distribution of males and females by grade-point average (Table 5). Women accounting majors at URI earn significantly higher grades than their male counterparts.

These figures, combined with those showing the influx of women into the accounting field, are particularly applicable to recruiters from public accounting firms who tend to set a 3.0 GPA as a minimum criterion. If the URI findings that a large proportion of the 3.0 and above group are women are true nationally, then one may expect to see an increase in the number of women entering these firms. Further, the figures tend to support the contention that those women who excel as students are attracted to accounting as a major.

Conclusion

Our study showed nationally a relatively large proportion of women receiving undergraduate degrees in accounting. The increase in the percentage of women receiving such degrees across the country surpassed the increase in male students receiving accounting degrees by a better than two to one margin. In fact, the increased percentage of women receiving accounting degrees is sufficient to account for the entire increase in the percentage of women receiving business degrees.

Our questionnaire of URI accounting majors indicated that women are attracted to accounting because of job availability, because they find courses interesting and challenging, and because they wish to use their quantitative aptitudes. They ranked salary as a less significant factor in their choice of major than did men and their overall grade performance was significantly better.

Notes

[1]This list was completed without knowledge of a similar list published by Dr. L. Gayle Rayburn, "Recruitment of Women Accountants," *Journal of Accountancy*, November, 1971, p. 51. A subsequent comparison of these eight factors with those listed by practicing women accountants responding to her survey indicates our list includes eight of the nine most important factors listed by her. The ninth factor "enjoyed previous accounting related job" was not considered important to our study.

[2]Rayburn, *op. cit.*, p. 52.

[3]Sidney Siegel, *Nonparametric Statistics for the Behavioral Sciences* (McGraw-Hill, 1956) pp. 230-33.

Personal Management

Inflation and You

Dr. Ruth H. Bullard, CPA
The University of Texas at San Antonio
San Antonio, Texas

We like to think that as accountants we are able to handle our personal affairs with the same expertise and equanimity as we handle (or advise) our clients. However, if you are like most people these days, you suffer from the dollar squeeze.

Despite the increases in salaries during the past few years, real disposable income for the average working individual has actually declined. The Bureau of Labor Statistics reports that real disposable income decreased 5% in 1974. The impact of soaring inflation is not the only culprit in eroding our dollar. Increases in taxes — both income and social security — have reduced our ability to buy or save money for the future.

For the average American money and credit have been hard to come by. Credit transactions, such as home mortgage loans, have decreased even though credit is still available in a variety of modes — such as personal loans, credit cards and checking account loans.

We are all aware of the advantages of the use of leverage in business activities. Credit has been just as beneficial to the individual as to the business. In fact, the availability of credit has been one of the primary factors in helping to increase our standard of living. Without home mortgages, for instance, the majority of Americans would be unable to buy their own homes. When properly used, credit is a tremendous asset. When improperly used, we can get caught up in the dollar crunch facing poor money managers.

The National Foundation for Consumer Credit sees mismanagement of borrowing capabilities as a prime source of an individual's financial problems.

Red flags or warnings of a pending financial crisis are:

1. Bills you used to pay on time are put off for another month or so.
2. You are shuffling funds about, using cash you had set aside for other purposes, such as an upcoming insurance premium or tax bill.
3. You are dipping into reserve savings or not-yet-matured bonds to pay current bills.
4. You have less than 3-months take-home pay ready in a savings account for emergencies.
5. You borrow to pay for items for which you used to pay cash.
6. You are taking out new loans to pay old ones or extending old loans to lower monthly payments.
7. Your monthly installment debts exceed 20% of take-home pay.
8. You are constantly paying only the minimum amount due each month on charge accounts.
9. You have begun to receive a lot of overdue slips.
10. You rely on extra income to make ends meet.
11. You are unable to make some replacements.
12. You are unable to make some long-term investments.
13. You worry frequently about money.

Financial advisers suggest three basic remedies for avoiding a financial crisis: 1) self-imposed discipline, 2) expert counseling, and 3) legal action, e.g., bankruptcy.

James E. Conway's view is that financial planning is difficult to do alone and that few people have the sense to solicit help. Mr. Conway is President of AYCO Corporation.

Perhaps with self-imposed discipline and our accountant's inherent knowledge of financial matters, we can do our own expert counseling, at least up to a point.

Some financial advisers start by gathering debts together and determining what is left of income after paying variable and fixed expenses. The process includes,

1) determining what income is,

2) figuring out exactly what is spent each month,

3) making a list of outstanding debts,

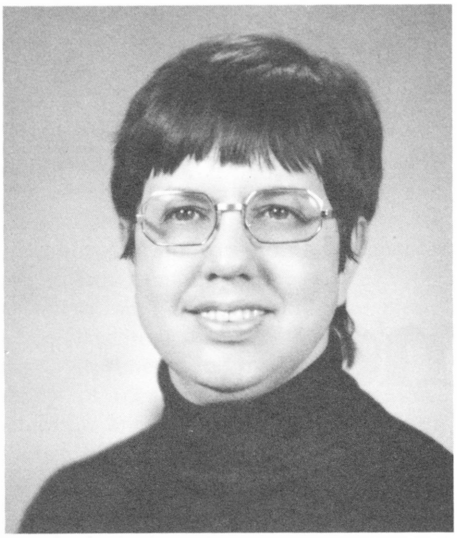
4) comparing the amount that is owed against the amount left after paying variable expenses (classified as food, clothing, medicine, recreation, entertainment, home maintenance, transportation and utilities) and fixed expenses (classified as mortgages, taxes and insurance).

Conway begins by developing three sets of inventories, 1) a personal inventory, which accounts for individual assets such as cash, stocks, real estate, automobiles, etc.; 2) an inventory of employee benefits such as medical insurance, group life insurance, contributory pension plans, and the like; 3) a documentation inventory such as wills, insurance policies, and tax returns.

Conway also sets up a personal profit and loss statement. He warns, however, that the balancing of the ledger is often the easiest part of the whole planning process. He states further that clients typically vastly underestimate their expenses. All of this leads to the crux of financial planning.

Conway emphasizes that the single most important input to any financial plan is "*a personal philosophy*." This personal philosophy must be determined and re-

(Continued on page 33)



Reviews

Writings in Accounting

Dr. Carole Cheatham, CPA
Mississippi State University
Mississippi State, Mississippi

"HUMAN RESOURCE ACCOUNTING: PAST, PRESENT, AND FUTURE," Edwin Caplan and Stephen Landekich, NATIONAL ASSOCIATION OF ACCOUNTANTS, New York, 1974, 156 pages, $10.95 (paperback).

The authors attempt to answer three questions about Human Resource Accounting:

1. What is Human Resource Accounting?
2. How do we measure the value of human resources?
3. Why do we need Human Resource Accounting?

In answering the first question, the authors have attempted to define Human Resource Accounting (HRA) and to relate it to conventional accounting. The major assumptions that support the definition and recording of human resources as an asset are: (1) Human resources provide future benefits to an organization that contribute to the accomplishment of the organization's goals; (2) It is theoretically possible to identify and measure human resource costs and benefits within an organization; and (3) Information with respect to human resource costs and benefits should be useful in the processes of planning, controlling, evaluating, and predicting organizational performance.

The emphasis in the first section of the book was on the third assumption. Use of HRA is, according to the authors, necessary for many effective managerial decisions, such as capital budgeting, production scheduling, and performance evaluation of supervisors. Current accounting systems do not reflect the increase or decrease in the human resource investment caused by managerial decisions. The first section also includes a discussion of related theories and writings in economics, management, and the behavioral sciences.

The second question addressed by the authors deals with the measurement aspect of HRA. One method developed by Rensis Likert measures the "relationship of the human organizational variables and the relationship of the variables to performance data". The relationships are then quantified and changes in the variables are used as a measure of the change in the value of the firm's human resources. A review of management philosophy is included in the discussion of this technique.

A second approach to the measurement of human resources is the "standard" approach to recording assets, i.e., capitalizing the costs expended in training employees. There are four tests that must be met before costs should be capitalized. According to the authors the tests are: (1) Is the cost of material size? (2) Is the cost-benefit relationship indicative of an investment (future benefit) process? (3) Is capitalization feasible and functional? (4) Is the net effect of material size? The first three tests are answered positively in the first section of the book dealing with the definition of HRA. The fourth test is also met due to the increasing skills and education of employees and due to the increasing size of most companies. The increase in the asset will be greater than the usage or write-off.

The third approach is value measurement of the investment in human resources. Several ways to implement this measure are presented: (1) replacement cost, (2) opportunity cost as determined by a bidding system within the firm, (3) unpurchased goodwill (the assumption is that all earnings in excess of a normal rate of return are caused by the intangible asset, human resources), and (4) adjusted present value of the employee's benefit stream.

Examples are given for each of the measurement methods. In addition, two actual case studies are presented illustrating the implementation of HRA.

In this reviewer's opinion, this book should be read by any interested manager as the first step in the implementation of HRA. The authors have included enough background material and alternatives available in HRA to enable a firm to decide whether or not it wants to consider a program of HRA. At that point, more rigorous research would have to be conducted.

Mary Golden, CPA
Auburn University at Montgomery

A HISTORY OF ACCOUNTING THOUGHT, Michael Chatfield, The Dryden Press, Hinsdale, Illinois, 1974, 314 pages, $11.95 (cloth-cover).

The author has drawn the basic elements of accounting history together to show their relevance to current accounting issues, and to give the reader a general perspective on the development of accounting thought. The book is a history of ideas with the emphasis on when modern accounting technique and theory began to emerge rather than on the development of double-entry bookkeeping.

Part I comprises a roughly chronological history of bookkeeping from Babylonian times to the present. Accounting began with business records made on clay tablets. Bookkeeping during the Middle Ages evolved in several distinct directions; however, the development in Northern Italy of venture partnerships and overseas trading led to the development of the double-entry system used today. With the discovery of America and the opening of sea routes to China and India, the British began to form partnerships. Some partners insisted on limited liability and other corporate features which evolved into the corporation. With the advent of the corporation, the year became the basis for segmenting reporting periods and the dividing line between current and long-term balance sheet items. Each accounting era is seen largely as the story of the economically dominant nation of the time. During the Renaissance this was nearly always Italy; from the seventeenth through the nineteenth centuries it was usually England; and in the twentieth century it is most often the United States.

Part II describes the rationalization of accounting development subsequent to the Industrial Revolution; i.e., scientific management, systematic costing, auditing, budgetary control, modern taxation, and the rise of the accounting profession. The effects of industrialization upon accounting can be seen as a series of additions to the older framework of double-entry bookkeeping. Asset valuation, income determination, and reporting to absentee owners became important and were to some extent systematized. The concepts of continuity, periodicity, and accrual became practical necessities for large manufacturers. Among the new developments and rediscoveries discussed are systematic cost accounting and the nonverbal audit.

Part III is a "history of theory," which traces and analyzes the evolution of accounting principles. Accounting has always been based on a structure of ideas despite its pragmatic origins and developments. Experience may provide the initial impetus for theory and the final test of conceptual validity, but experience is itself an interpretation involving the analysis of facts in terms of standards; thus, according to the author, all accounting rules have a logical foundation.

The book presents accounting history in such a way that it could be used as a text for a history or theory course (with additional readings), or as a concise reading for non-classroom work. The emphasis of the book is on the method of accounting theory development in relation to the evolution of economic conditions. Since economic events are presumed to repeat themselves, the reader should be aware of previously proposed solutions to accounting problems. The author correlates modern theory with historical developments up to the creation of the Financial Accounting Standards Board. Even though the book is well written, sometimes construction seems choppy apparently because the author has tried to condense a multitude of accounting developments into a 300-page book.

Dr. Bobbie Harper Hopkins
Mississippi State University

"IF THE U.S. KEPT BOOKS THE WAY A BUSINESS DOES," BUSINESS WEEK, No. 2400, September 29, 1975.

For almost 200 years, the United States has been developing and strengthening the Constitutional checks and balances with an incorporation of the concept of accountability into this structure. "A missing link is a unified and comprehensive report of the financial results of the government's operations." Thus concludes a report by Arthur Andersen and Company (AA). The firm notes that although both Hoover Commissions recommended accrual accounting, and a law was actually passed in 1956 to require use of this method by most government agencies, the directives have been largely ignored. Therefore, working with fiscal 1973 and 1974 figures, Arthur Andersen has taken the financial affairs of the United States government and presented them in the same form that is used by most of the nation's corporations. The results are astounding. An illustrative consolidated balance sheet shows assets of $329-billion and liabilities of $1.1-trillion.

AA contends that preparation of government financial statements on an accrual basis (government reports are currently prepared on a cash basis) is highly important because it not only enables the public to see how much government is receiving and disbursing during the year but also gives an indication of the liabilities for which government has committed itself that may not be funded out of current revenues. AA concludes that measurement of the government's fiscal affairs through accrual accounting can provide a valuable tool in financial management, not only for the federal but also for state and local governments.

It is the opinion of this reviewer that perhaps government should be compelled to observe business-like accounting procedures, many of which have been formulated by government agencies. Since the $812-billion "true" deficit, which AA likens to a negative stockholders' equity, represents the amount of future taxes required to pay present liabilities, the stockholders (taxpayers) might reasonably expect a more accurate and thorough disclosure by government of its present financial condition.

James W. Whitt, Jr.
Graduate Student
Mississippi State University

"THE EFFECTS ON INVESTMENT ANALYSIS OF ALTERNATIVE REPORTING PROCEDURES FOR DIVERSIFIED FIRMS," Richard F. Ortman, ACCOUNTING REVIEW, Vol. L, No. 2, April 1975.

This is an article presenting the results of a field experiment to determine the effects on investment analysis of the presence of segmental data in financial statements of diversified firms.

A sample was taken of Chartered Financial Analysts and analysts who designated themselves as specialists in evaluating diversified firms. The computer and auto parts industries were chosen to survey in order that one fast-growing profitable industry and one stagnant low profit industry could be included. The analysts were divided in half with one half receiving only statements with segmented data and the other half only statements without segmented data for each of the two companies.

It was hypothesized that the investment analysis of diversified firms based on financial statements with accompanying segmented data would not be significantly different from the analysis of the financial statements of the same companies without accompanying segmented data. The results showed that with the segmented data the value of each firm's stock was correctly related to the present value of its expected returns reflected by industry average price/earnings ratios. Without segmented data, 81% of a control group incorrectly valued the firm's stock.

This reviewer concludes, along with the author, that the results of this study strongly suggest that diversified firms should include segmental data to give clearer pictures of financial positions.

Jerlene Elaine Heard
Graduate Student
Mississippi State University

"INDEXING: AN APPROACH TO FAIR TAXATION?" James R. Hasselback, BUSINESS & ECONOMIC DIMENSIONS, Vol. 11, No. 3, May-June 1975.

The author analyzes the effect inflation has on taxes. Indexing is discussed as an approach to adjust the tax rate to the inflation rate.

At present, inflation is helping the government to raise nominal tax rates by lifting taxpayers into higher income tax brackets. With a progressive tax rate an increase in income results in a higher rate of taxes. As inflation decreases the purchasing power of the dollar, the individual taxpayer will try to increase his or her income in order to retain the same level of real earnings. This increase in income puts the individual into a higher income tax bracket.

A progressive income tax can be called an automatic stabilizer because it slows fluctuations in the national income. The major argument against indexing personal income tax rates to adjust for inflation is that such indexing might damage the macroeconomic stabilizing qualities of the progressive tax system. According to the author there are three basic reasons why this argument can be declared inaccurate. First, an indexing system does not have to cause an immediate adjustment of tax rates. Second, the effect of price changes on the revenue yield of the tax system could possibly be stabilizing. Third, government expenditures are assumed to be independent of inflation-directed changes in tax revenues.

Two possible methods of adjusting for inflation into the tax system are analyzed by the author. One method would be to express all factors of the tax system in absolute dollars including exemptions, tax credits, the standard deduction, and the boundaries of the income tax brackets. The other method of adjustment would have taxpayers dividing their total income figures by the inflation adjustment factor.

Hasselback concludes that inflation is an awkward way of raising tax revenues. The present tax system does not acknowledge inflation in adjusting tax rates which makes it obsolete as far as reflecting economic reality is concerned. Indexing in some form may be the answer to adjusting the tax rates to inflation.

Hasselback brings to view an interesting topic in this age of inflation. Although the present tax system does not reflect inflation, in this reviewer's opinion, it may be the only system of raising tax revenues the American public will accept. People are more likely to realize an increase in the actual amount of taxes paid than a decrease in the purchasing power of their income dollars. Indexing may be a cure, but change is often a difficult medicine to swallow.

Charles D. Easley, Jr.
Graduate Student
Mississippi State University

"NEW INSIGHT INTO CHANGES IN EARNINGS PER SHARE," Robert A. Lansen and Joseph E. Murphy, Jr., FINANCIAL ANALYSTS JOURNAL, Vol. 31, No. 2, March-April 1975.

There is probably little or no argument that the primary purpose of the analysis of common stock is to select those stocks that will record the greatest gain in price. Price changes, most will agree, are positively and significantly related to earnings changes. Analysts will seek those companies that will have the highest earnings, as well as those whose future earnings performance will increase significantly from the past. It all sounds simple enough, but as the authors point out, "the problem in identifying these companies arises in the inability of analysts to accurately forecast changes in earnings."

Because little is known of the "key factors" affecting changes in earnings per share, the authors present in their article a report on the results of an investigation of a few of these factors. Specifically, the study involved an investigation of changes in earnings per share and changes in the three factors, equity capital per share, profit margins, and capital turnover. For reference, the authors offered the following relationship:

$$\frac{\text{Earnings}}{\text{Share}} = \frac{\text{Capital}}{\text{Share}} \times \frac{\text{Earnings}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Capital}}$$

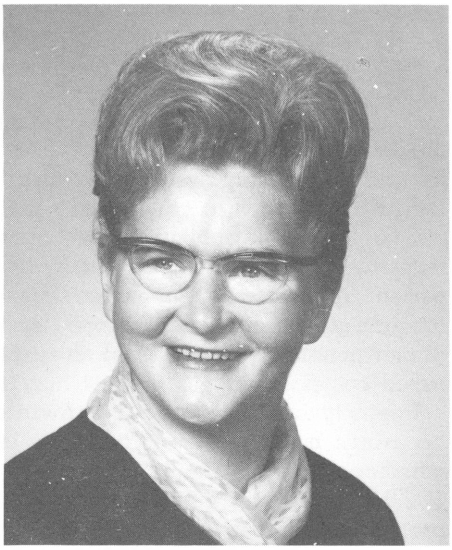
The study involved data from 631 companies compiled over a 15-year period (1956-1970). The companies were further classified into 102 industries. The study first compared changes in the variables during the 15-year period for all the companies and then compared them by individual industries. The aggregate and industry change patterns were similar, but a precise relationship of the factors was not apparent in the study results.

The study found a clearer relationship between changes in earnings per share and changes in the three variables, according to the authors, after computing coefficients of correlation. The authors also found that a change in profit margin was the most important factor, followed by changes in equity capital. Changes in capital turnover, however, showed only slight relation to changes in earnings.

The authors employed six tables of industry data in their comparison of changes in earnings per share with changes in the variables as a group and individually. Two other tables also aided in a discussion of "whether earnings per share might be related to the variability of earnings growth." Their figures suggest that the variability or "volatility" of growth in earnings has "no generally consistent bearing on earnings growth."

This article seemed significant to this reviewer in that it provided some insight, as its title suggests, into the prediction of changes in earnings per share and concomitantly changes in price per share. Among the three variables studied, changes in profit margin were shown by the authors to account for over half the observed variability in earnings per share, while changes in equity capital accounted for about one quarter. As noted, changes in capital turnover showed no significant relationship. Although the study results tended to show profit margin as the key factor, the authors point out an interesting trend. The average annual earnings per share increased for the companies in the fifteen year study, but profit margins declined. Offsetting its decline was equity capital per share which rose consistently more than earnings per share.

Russell A. Brown
Graduate Student
Mississippi State University



Small Business

LEASE OR PURCHASE?

Barbara I. Rausch, CPA
Marysville, Ohio

The decision to purchase or lease a piece of equipment is based on many considerations — some strictly financial, some tax-oriented, some related to over-all economic conditions.

The Effect on the Financial Statements and Cash Flow

Often a purchase requires a substantial down payment which could create a problem at times. On the other hand, a lease agreement does not normally require a large cash outlay up front. In the long run, of course, the ultimate cash requirements will be rather close, but the timing can be very important.

A purchase creates an immediate liability in the amount of the balance of the price of the equipment after the down payment. At least a portion of this liability is reflected in current liabilities, while the asset is shown in the Property and Equipment section of the balance sheet — not a current asset. Moreover, cash has been reduced by the amount of the down payment, and the current-asset/current-liability ratio is adversely affected. Even if circumstances require that a lease be capitalized and the commitment be shown as a liability, a relatively small amount would be a current liability.

Many items of office equipment are available on a lease basis only — or at least they were. Until recently, a Xerox copier could not be purchased, and the lease was for short durations, even though businesses renewed their leases year after year. There was never a question that each lease payment was a current period expense, the equipment was never owned and thus would not be shown as a capital asset, and no liability accrued — ever.

Tax Considerations

These are, of course, closely related to financial aspects, since a current tax deduction helps the cash position of a business. On the other hand, a 10% Investment Credit on equipment purchased or leased on a long-term basis (assuming a pass-through by the lessor), along with deductions for depreciation and interest, reduces the tax liability of the business and improves the cash position at least as much.

However, the trade-off of current deductions for lease payments as opposed to Investment Credit may not be an important consideration when assets with a relatively short life are involved. Automobiles and trucks are a good example. In the following comparison of lease costs and purchase, a hypothetical car is used that can be purchased for $4,500.00 to be financed over a 36-month period. The example used in this case assumed Columbus, Ohio delivery and residence for purposes of figuring license plates, freight and sales tax. Generally, what is true for Ohio is true for most of the country. The figures could change, but the comparison would remain similar. A more expensive or a less expensive car would reflect similar differences. Naturally, charges vary from one leasing company to another, but competition serves to keep the differences fairly low.

BUYING:

$4,500.00	Purchase price
180.00	4% sales tax
7.50	Filing fee
$4,687.50	
987.50	Down payment
$3,700.00	Amount to be financed
721.50	Finance Charge (6.5% add-on interest — equal to 12.27 annual percentage rate)
$4,421.50	Total to be paid in 36 monthly installments
122.81	Monthly payment
.92	License plates (per month for 36 months)
$123.73	Total monthly cost

LEASING:

The same car leased over a period of 36 months with a predicted resale value of

$1,250.00	can be leased for —
$103.13	Monthly lease payment (including finance charge and license plates)
4.13	4% Use (Sales) tax
$107.26	Total monthly payment

Assuming that it is desirable to purchase the car at the end of the lease period, the total costs compare as follows:

BUYING		LEASING	
$123.73	Monthly payment	$107.26	Monthly payment
× 36	Number of payments	× 36	Number of payments
$4,454.28	Total payments	$3,861.36	Total Payments
987.50	Down payment	1,250.00	Option to buy
$5,441.78	Total cost	$5,111.36	Total cost of lease and purchase

The cash requirements by year are shown below:

	BUYING		LEASING
First year — 12 payments	$1,484.76		$1,287.12
Down payment	987.50		
last month's lease			107.26
	$2,472.26		$1,394.38
Second year — 12 payments	1,484.76		1,287.12
Third year — 12 payments	1,484.76		
— 11 payments		$1,179.86	
Option price		1,250.00	2,429.86
	$5,441.78		$5,111.36

The tax deduction situation compares as follows:

	BUYING				LEASING
	Tax & License	Interest (Rule of 78)	Depreciation $1,250 Salv. S/L 3 years	Total	Lease payments
First year	$198.50	396.50	1,083.34	1,678.34	1,287.12
Second year	11.00	240.50	1,083.33	1,334.83	1,287.12
Third year	11.00	84.50	1,083.33	1,178.83	1,287.12
Three-year totals	$220.50	721.50	3,250.00	4,192.00	3,861.36

In addition, the purchase would yield an Investment Credit of $150.00 in the first year.

Notes:

A 6.5% yearly add-on interest rate is competitive for individual purchasers. Corporations may be subject to higher rates.

The lease rate is that of an Ohio corporation, which is very strong in the field of leasing cars to professionals, assuming 15,000 driving miles per year for a closed-end lease.

Add-on interest rates would not generally be used for purchases that are financed longer than 3 years. A bank loan at simple interest or other borrowing at straight rates will prove a lot less costly. And, of course, there are those businesses that are able to purchase equipment out of funds generated in the ordinary course of business.

Over-all Economic Conditions

The final ingredient in any decision to buy or lease is related to today's fast developing technology and the general state of the economy.

Even though in many cases leasing may be more costly than buying, the possibilities of obsolescence must be given due weight. At the end of the initial lease period, the equipment may not be truly obsolete, but there may be other machines available that would be capable of increasing the efficiency and productivity of the business to the point where it may be very valuable to be able to switch. Where the equipment was purchased, the trade-in value of the old equipment may be unattractive, especially where the newly developed machinery is offered by a competitor.

Finally, these are inflationary times, and the dollars paid out 3-10 years hence are "cheaper" than today's dollars. The business will have an opportunity to use this cash by turning over inventory, taking advantage of cash discounts, or saving interest by reducing short-term borrowing.

Of course, leasing obligations will affect repayment ability — which is a very important criteria used by bankers and other financial institutions in making new loans. But it will not make inroads into an established line of credit.

In conclusion, it is obvious that there is no ready answer to the question of whether a business should buy or lease. The decision will be influenced by giving properly weighted considerations to the cash flow position, tax problems and the technological pace of the particular business and equipment under consideration.

And Now a Brief Message

(Continued from page 13)

made on the basis of the station's standing in the community and the percentage of total national dollars expected to be spent in the market as well as the prestige of the network affiliation. For instance, in a certain market CBS may get 40% of the national orders, and NBC and ABC might get 30% each. Expenses to be considered are anticipated costs of market surveys, talent fees, extensive outdoor billboard and bus advertising campaigns and promotions, in addition to all the usual items on business budgets, like wages and supplies. It might be necessary to make a decision whether to budget for a new film processor and raw film stock or whether to acquire minicameras where the film shot may be used immediately, obviating the need for the film processing equipment and the photo lab technician.

To make a meaningful contribution to the success of the local station the business manager must have up-to-date knowledge of all local and federal regulations affecting the broadcast industry, must feel the pulse of both the local and the national economy in order to guide collections and personnel practices, and make proper decisions on forecasts. Finally, the business manager must be able to apply generally accepted accounting principles.

This message was sponsored by WCPA, the journal for the professional woman accountant. We now return to our regular programming.

Tax Forum

THE CAUSES OF THE ACCUMULATED EARNINGS TAX PENALTY AND THE MEANS OF AVOIDING IT

Mable W. Kitchen, CPA
Price Waterhouse & Company
Cincinnati, Ohio

GUEST WRITER: This column was written by Wanda A. Wallace, M.P.A., CPA, of Fort Worth, Texas.

A corporation is subject to a penalty tax if it unreasonably accumulates earnings to avoid having them taxed to the shareholders as dividends. This accumulated earnings tax is in addition to the regular corporate tax of 48% and has a rate of 27½% on the first $100,000 of accumulated taxable income and 38½% on any excess.

Given the present slump in the economy you probably think your company could not possibly have an accumulated earnings tax problem. You could be in for a surprise! Unknowingly, your company could have developed the problem stemming from (1) the decline in sales volume and the resulting decrease in the inventory level and the accounts receivable balances, (2) the tighter credit policy resulting from anticipation of increased business failures during the economic decline, and/or (3) the reduced level of corporate expenditures which were curtailed to conserve cash for what might be a long business slump. The effects of any or all of these steps may have put the company into a highly liquid cash position. Take a look at the company's balance sheet. Does it contain those "red flags" which indicate to the Internal Revenue Service (IRS) that the company may be unreasonably accumulating its earnings. First, take a look at the retained earnings balance; does it exceed the exempt level (in 1975 — $150,000)? If so, does the balance sheet also show any of the following: (1) a very large cash balance, (2) an unreasonably high current ratio, (3) an unrelated investment for example, marketable securities or vacant land, (4) substantial loans to major stockholders, particularly if no rendered services exist, and/or (5) a record of minimal dividend payments coupled with closely-held stock? If the answer to any of these is in the affirmative, your company has a problem. The existence of these factors creates the presumption that it has unreasonably accumulated income for the purpose of avoiding tax on the shareholders. As a result the company would be subject to the accumulated earnings tax penalty unless by a preponderance of evidence it can prove the contrary.

The accumulated earnings tax has plagued closely-held corporations particularly due to the shareholders' ability to control the dividend policy. However, the IRS says there is no legal impediment to applying the accumulated earnings tax to a publicly-held corporation.[1] In a recent case, *Golconda Mining Corp.*, it was determined that the levy did not apply to a publicly-held corporation;[2] however, the IRS has announced that it will not follow the decision. So, although it has been largely an important lever utilized by the IRS against closely-held corporations, the accumulated earnings tax may become an important consideration for publicly-held companies as well.

Historical Development

A look at history indicates that under the 1939 Internal Revenue Code, the IRS paid special attention to corporations that had not distributed at least 70% of their earnings as taxable dividends.[3] (The 70% test does not apply under the 1954 code.[4]) In any event the 70% figure was purely arbitrary and only a small fraction of corporations distributing less were actually assessed. On the other hand there were no absolute assurances that a corporation distributing more would escape the tax. One court decision included the statement that "Hard, fast rules are not enough; clear preponderance of evidence is needed."[5] The key to avoidance of the assessment is the substantiation of the "reasonable business needs" for accumulation of earnings, both past and present.[6]

The Application of Sections 531 to 537

The accumulated earnings tax is governed by Sections 531 to 537 of the Internal Revenue Code of 1954, the Income Tax Regulations related thereto, and case law on the subject. The application of Sections 531 to 537 is extremely difficult due to the ambiguity surrounding what constitutes a "fact" which will establish that the accumulation of earnings is to meet the reasonable needs of the business.

> Prominent factors in one case may become minor in another and slight shades of differences may serve to tip the scales one way or the other . . . What would be reasonable in one situation or for one business might be clearly unreasonable in another.[7]

As if to justify such ambiguity in respect of the meaning of "facts" supporting accumulations of earnings as reasonable, courts have pointed out that the standards for the assessment of the accumulated earnings tax compare with the indefinite standards which are common in law, such as "the prudent driving of a motor car or the diligence required in making a ship seaworthy."[8] Obviously, the recognition that more than one area of ambiguity exists within the framework of law does little to rectify the problem of applying Sections 531 to 537 of the Internal Revenue Code. In the opinion of this writer, it is possible to shed some light on what constitutes a "finding of fact" that earnings have been reasonably accumulated by coordinating legislation and court cases and recognizing accepted standards which can support the ultimate finding.

In terms of legislation, Regulations 1.537-1 through 1.537-3 are a considerable aid to the taxpayer in deciphering the meaning of the Code sections. The importance of accumulating earnings for use in a related business for bona fide business purposes is stressed. Regulation 1.537-2 provides examples of grounds which, when supported by facts, may indicate reasonableness of earnings' accumulations.

REASONABLENESS TESTS

Expanding and Replacing Plant and Equipment

The first purpose for accumulating earnings which is cited as a reasonable goal is that of expanding and replacing plant and equipment. Concreteness of future plans for replacement of equipment, modernization of plant, or maintenance of competitive position is important. It is no excuse to say that because a corporation is small and informally conducted, alleged future plans lack specificity.[9] The specificity requirements were written into the Regulations by the Commissioner precisely because a loosely run corporation presents a high potential for post hoc, unsupported rationalization for the prohibited hoarding of profits.[10]

However, in another case, the fact that "there was little documentation of a taxpayer's plans for modernization in the corporate minutes and formal memoranda" had little bearing on a decision for the taxpayer, since the management had daily contact and a history of acting in an informal manner.[11] The judge in this case explained that the requirement of "specific, definite, and feasible" plans does not demand that the taxpayer produce meticulously drawn, formal blueprints for action.

> The test is a practical one, namely that the contemplated expansion appears to have been 'a real consideration during the taxable year, and not simply an afterthought to justify challenged accumulations'.

The evidence cited in the case as supporting expansion plans were the efforts to acquire continuously and persistently from a point in time preceding the taxable years in issue. The record indicated that if the petitioner had been able to acquire the firm it would have to immediately provide funds for additional working capital for the acquiree and to modernize its equipment. The stronger evidence cited in the case is the fact that in 1968 the petitioner bought $1,000,000 worth of stock — the desired amount. In the words of the judge, "we cannot and will not ignore the ultimate fruition of petitioner's expansion plans — accomplished within a reasonable time after the years in question at a cost closely in line with the amount originally estimated. While not controlling, evidence of what petitioner in fact did in subsequent years certainly affects the weight to be given its declared intention during the years in issue." The money set aside for replacement of the plant and equipment was considered appropriate in light of the testimony of officers of the petitioner and the fact that the record shows actual replacement of plant and equipment beginning prior to the first year here in issue.

Despite the emphasis on actual activities carried out, the actual planned activities do not have to occur.[12] In one case the facts were that a palletizing program was needed by a corporation and this made a warehouse imperative.[13] There was no architect's design; the imperative need for a new warehouse and the carrying out of the palletizing program was sufficient evidence. In fact, even though there was evidence to show knowledge of the taxpayer that trackage could not be had at its warehouse site, this did not show that there was no plan for meeting the imperative need which the district court found existed. It appears in this case that the existence of a need is enough to justify accumulation of earnings for expansion.

Similar to the above case, *Sorgel, William J. V. U. S.* 29 AFTR 2d 72-1035, held that it was reasonable to accumulate "$700,000 for the plant expansion . . . . Clogged workshops indicate the reasonableness of an expansion program" and plans to build a 260 foot building existed. The judge further pointed out that "While no doubt Sorgel could have financed at least part of the expansion through debts, the decision not to, if possible, cannot be considered unreasonable."

Based on the above decisions it appears that while concrete construction plans are helpful, the simple proof of an existing need to expand is sufficient to prove reasonableness of funds accumulated for expansion. Of course, the amount set aside for expansion purposes must be a "reasonable" size, as well. If the expansion plans are actually carried out prior to a court case involving allegations that accumulations were unreasonable in prior years, they provide excellent proof of good intentions of a taxpayer.

Working Capital Needs and Current Ratio

A less subjective factor in establishing "reasonableness" is that of providing a working capital need and showing a reasonable current ratio. The Bardahl formula — a mathematical determination of working capital requirements of industrial corporations — has been accepted in the Supreme Court as a good rule of thumb in justifying retention of earnings for operations. This involves the calculation of current expenses over an "operating cycle." The operating cycle is the time it takes to buy raw materials, convert them into goods, sell the goods, and collect the proceeds. The total of operating expenses during a cycle (in a peak period) is equal to a working capital requirement considered "reasonable."[14] Likewise, the Tax Court has consistently held that the accumulation of funds to meet operation expenses for at least one year is reasonable.[15] All working capital calculations must be adjusted for the uniqueness of the company involved, its experience with receivables, its peak periods of operations, and its subsequent historical needs for working capital. A rule of thumb of the courts in terms of current ratio is that approximately 2.5 to 1 is an "indication that the accumulation of earnings and profits is not unreasonable."[16]

Other Support Taken From Court Cases

Valid reasons for accumulations have included the following:

- The desire to expand a business or a plant without the dilution of the present owners' interest and without borrowing
- The desire to acquire a new business, especially if that business is directly related to the existing business of the accumulating corporation
- The desire to increase inventories
- The desire to retire outstanding debt
- The need to provide loans to suppliers or customers
- The desire to fund pension plans
- The desire to substitute a self-insurance plan reserve for commercial coverage.[17]

While each of the above reasons are acceptable, they should be adequately documented in the corporate records if they are to be recognized as facts by the courts.

Perhaps most importantly, a firm that is denied reasonableness of accumulations should take heart at the District Court's

(Continued on page 33)

Theory & Practice

REITS

Marilyn J. Nemec, CPA
Partner, Alexander Grant & Company
Chicago, Illinois

There are few days when the Wall Street Journal does not have at least one article about the problems of a real estate investment trust (REIT). Sometimes the REIT is announcing a delay in completion of its audit because the auditors have requested additional appraisals of the REIT's properties. In many cases REITS, which had been reporting earnings or a small loss on an interim basis, are disclosing huge year-end operating losses resulting from an increase in the allowance for loan losses or the write-down to net realizable value of the carrying amount of its properties.

Typically, a REIT is organized as an unincorporated business trust which issues shares of beneficial interest rather than common stock to the public. It invests the proceeds of its sale of beneficial interests and of its borrowings in real estate projects and in mortgages financing real estate projects. Its portfolio may be restricted to only equity investments in properties or to only financing properties; however, in many instances the portfolio includes both. A REIT is very highly leveraged and to a great extent its success is based on its ability to borrow money at a lesser rate than it can charge. If a REIT qualifies under Sections 856-858 of the Internal Revenue Code and distributes at least 90% of its taxable income (excluding capital gains) to its shareholders, it is not required to pay Federal income tax on distributed income. In any year in which the REIT fails to qualify under the Internal Revenue Code its entire taxable income is subject to Federal income tax at corporate rates. Usually, an advisor (a separate corporation which sponsored the organization of the REIT) manages the REIT's daily operations for a fee. Often the other business activities of the advisor or its parent or affiliates are such that conflicts of interest or related party transactions are likely to occur between the REIT and its advisor.

The accounting practices of REITS have varied for some time, but it was not until the current economic crisis created serious financial problems for the real estate industry that action has been taken to narrow the range of accounting practices for REITS. The Accounting Standards Division of the American Institute of Certified Public Accountants has submitted recommendations to the Financial Accounting Standards Board for its consideration in a Statement of Position on Accounting Practices of Real Estate Investment Trusts. Statements of Position do not establish standards enforceable under the AICPA's Code of Professional Ethics; however, recommendations contained in such statements usually serve as general guidelines for the accounting profession until the FASB issues a definitive ruling on the subject.

Recommendations included in the Statement are:

Losses From Loans

The allowance for losses on loans and foreclosed properties should be determined based on an evaluation of the recoverability of individual loans and properties. The allowance should not be determined on the basis of percentages of loan balances, income or other similar bases. All holding costs, including property taxes, legal fees and interest, should be included in determining the amount of such losses.

The individual evaluation of loans and foreclosed properties should be made as of the close of all annual and interim shareholder reporting periods. This periodic evaluation may well result in a need to increase or decrease the allowance for losses with a corresponding charge or credit to operations.

In the case of a foreclosed property which the REIT elects to hold as a long-term investment, the net realizable value at the date of foreclosure becomes its new basis and subsequent increases in market values should not generally be recorded until the time of a later exchange transaction which confirms the amount of any increase.

Discontinuance of Interest Revenue Recognition

Recognition of interest revenue should be discontinued when it is not reasonable to expect that the payment will be received. Certain conditions are regarded as establishing a presumption that the recording of interest income should be discontinued. These conditions are past due payments, defaults, foreclosure proceedings, actual or pending bankruptcy of the borrower, doubtful economic viability of the project, and loan renegotiations. These conditions may also be an indication that an allowance for losses should be provided.

Commitment Fees

A commitment fee is paid by a potential borrower to a potential lender (the REIT) for a promise to lend money in the future. Commitment fees should be amortized over the combined commitment and loan period. Deferred commitment fees should be taken into income at the end of the commitment period if the loan is not funded.

Operating Support from Advisor

The advisor may elect to support the REIT's operations during its period of fi-

(Continued on page 33)

Editor's Notes

In This Issue

Several weeks ago Phyllis Peters, our predecessor, spotted a report published by the Career Planning and Placement office of the University of Michigan, entitled "Women in the Job Interview." We agreed with her judgment that it contained ideas and suggestions that deserved a wide distribution among our readers. We therefore contacted the authors, three career counselors who happen to be women, and received the article of the same title published in this issue.

We had several reasons for wanting to publish this article at this time. For one thing, the supply of accounting students greatly exceeds the demand for them. Therefore any help we can give to the women majoring in accounting is surely welcomed by them. For another thing, the article contains suggestions which should help any woman prepare for a job interview, even if she has been working for several years. Thirdly, many ASWA Chapters conduct special meetings for women students majoring in accounting and might for that reason look for ideas for a program of special interest to them. And, lastly, we thought it would be interesting if somebody did a similar survey of employer representatives interviewing accounting graduates. Reading this article may give somebody the idea to do just that. Since, in that case, we would be responsible for having planted the seed, we would expect a share of the crop in the form of an article reporting the results of the survey.

Appointments to the Editorial Staff

Lois C. Mottonen, CPA, President of AWSCPA, and B. Jean Hunt, CPA, President of ASWA, have made the following appointments to the Editorial Staff of THE WOMAN CPA, effective with this issue:

Dr. Ruth H. Bullard, CPA, has been appointed Editor of the Personal Management Department to succeed Jean E. Krieger, CPA, who has edited this column since it was started two years ago.

Dr. Bullard is Associate Professor of Accounting at the University of Texas at San Antonio and holds a CPA Certificate from the state of Texas. She received her B.S. from Mary Hardin Baylor College and her M.B.A. and Ph.D. from the University of Texas at Austin.

She is known to our audience through an article, "Pooling of Interests vs. Purchase: Effects on EPS," published in the October 1974 issue of THE WOMAN CPA. She has had articles published in other professional journals and in the local newspaper. Dr. Bullard's professional affiliations include the AICPA, the FEI, and AWSCPA. She is also a charter member of and the main driving force behind the formation of the San Antonio Chapter of ASWA.

Dr. Carole Cheatham, CPA, has been appointed Editor of the Reviews Department to succeed Dr. Marie E. Dubke, CPA, who started the Reviews Department over five years ago and has edited it ever since.

Dr. Cheatham is Associate Professor of Accounting at Mississippi State University. She received her Ph.D. degree from the University of Arkansas and her CPA Certificate from the state of Louisiana.

She serves on the Education and Research Committee of AWSCPA and is a faculty counselor for the Small Business Institute. Articles by Dr. Cheatham have appeared in the *National Public Accountant, Internal Auditor, Business Education Forum,* and *Mississippi Business Review.*

Her first article in THE WOMAN CPA, entitled "The Accountant's Participation in a Nonfinancial Audit," appeared in the April 1975 issue.

Wilma Loichinger has been appointed Editor of a new department with the working title "Not-For-Profit Accounting."

Ms. Loichinger has worked for many years in the field of educational institutional accounting, specializing for the last ten years in grant and contract accounting. After several years at the University of Cincinnati she decided a year ago to start a new career at the University of Alaska, the last frontier in the US and our biggest and — according to her — most spectacular state.

She is past president of the Cincinnati Chapter of ASWA and a Consultant for the National Institute of Health as a member of the Primate Research Centers Advisory Committee.

Since it is impossible for any one person to know all there is to know about accounting for non-profit organizations, Ms. Loichinger is actively looking for guest writers for her column to discuss areas in which she is not knowledgeable.

The first appearance of this column is tentatively scheduled for the April 1976 issue. Until then THE WOMAN CPA is conducting a contest for a title for the department to improve on the working title "Not-For-Profit Accounting." The first prize in the contest is a free copy of the issue in which the department makes its debut and a Letter from the Editor. All readers are encouraged to submit their ideas (on this department and any other matters) to the Editor. Deadline for entries is February 15, 1976.

All the other Department Editors were re-appointed by the two Presidents for another 1-year term.

The two Presidents also filled the three vacancies which occur every year on the Editorial Board by appointing Louisa E. Davis, Ruth Jones, and Wilhelmina H. Zukowska, CPA, to regular 3-year terms.

Theory and Practice
(Continued from page 31)

nancial difficulty by purchasing a loan or a property at an amount in excess of market value, forgiving an indebtedness, reducing the advisory fees, providing required compensating balances or making outright cash payments. In these situations, full disclosure of the nature of the relationship between the REIT and its advisor and the nature and amount of the transactions between them should be made. Appropriate accounting in the present framework of generally accepted accounting principles requires adjustment of any assets (or liabilities) transferred between the REIT and the advisor to current market value as of the date of the transaction and recognition, as income or as a reduction of advisory fees, of the operating support effectively obtained. When material, the effect of such transactions should be reported separately in the statement of operations.

This Statement is applicable to all REITS whether qualified under Sections 856-858 of Internal Revenue Code or not. Other companies engaged in the business of investing in real estate or making loans related to real estate are beyond the scope of this Statement; however, the conclusions in the Statement may also be appropriate for these companies.

Auditing implications of this Statement are being considered by the Auditing Standards Executive Committee of the AICPA. In forming a judgment regarding the adequacy of the allowance for loan losses, the auditor is presented with at least two significant problems. These are using the work of non-accounting specialists and availability of evidential matter to estimate net realizable value of properties. Estimated selling price and estimated costs to complete construction are among the factors to be considered in the determination of net realizable value. The work of an appraiser or engineer may be needed for some of these estimates. If construction has not been completed or if it is anticipated that a purchaser may be difficult to locate, estimation of net realizable value at a point in the future may be necessary. The auditor may need to evaluate "estimates of future economic events" and the reasonableness of assumptions used in making such "estimates". If the auditor is unable to obtain satisfaction as to the reliability of appraisals, assumptions and projections used in the determination of the carrying value of real estate and any related allowance for loan losses, it may be necessary to appropriately qualify or disclaim an opinion.

Tax Forum
(Continued from page 30)

statement that the "Failure of a taxpayer corporation to prove that its entire accumulation was for the needs of the business does not necessarily mean that no part of the accumulation was reasonable." The tax will only be assessed on that portion which is unreasonable.

There are two general consideration by the court that might prove worthwhile to keep in mind: (1) The courts have recognized a corporation's right to grow and within reasonable limits to protect itself and its shareholders,[18] and (2) The business judgment of those entrusted with the management of a successful growing enterprise is not to be ignored.[19]

Conclusions

Reasonableness of the accumulation of earnings can be established by using one of the methods set forth above such as the Bardahl formula, the "reasonable current ratio", the need for the funds for expansion, etc. In any event there are two things which should definitely be done to enable a corporation to avoid the accumulated earnings tax penalty:

(1) the corporation should keep up-to-date records of why earnings are retained and

(2) if the corporation lists any intangible factors such as fear of a depression, available supporting data, such as an economist's report, should be filed with the list. The more tangible the items, such as plant expansion, the more concrete the evidence should be, e.g. as near to the blueprint stage as possible.[20]

The accumulated earnings credit for $150,000 ($100,000 for years before 1975)[21] exists because the lawmakers and courts recognize the need for a firm to retain ample earnings for operations and for expansion; this credit may be adjusted if reasonableness of needs for retaining more earnings can be established.

Notes

[1]*Standard Federal Tax Reports;* Taxes on Parade, Commerce Clearing House, Inc., vol. 62, no. 18, April 2, 1975, p. 2.

[2]*Standard Federal Tax Reports;* Taxes on Parade, Commerce Clearing House, Inc., vol. 61, no. 56, December 10, 1974, p. 2.

[3]TD 4914, 1939-2 CB 108, as amended by TD 5398, 1944 CB 194.

[4]TD 6378, 1959-1 CB 680, amending TD 4914 above.

[5]*Latchis Theatres of Keene, Inc. et. al. v. Comm.*, 7 AFTR 2d 380.

[6]*Standard Federal Tax Reports;* Taxes on Parade, Commerce Clearing House, Inc., vol. 61, no. 9, January 29, 1975, p. 7.

[7]*Prentice-Hall,* volume 3, 1973, 21,327.

[8]*Ibid.*

[9]*Bahan Textile Machinery Co., Inc. V. U. S.*, 29 AFTR 2d 72-418.

[10]*Motor Fuel Carriers, Inc. v. U. S.*, 12 AFTR 2d 5554.

[11]*Walton Mill, Inc.*, P-H Memo TC 72,025.

[12]*Sterling Distributors, Inc. v. U. S.*, 11 AFTR 2d 767.

[13]*Ibid.*

[14]*Prentice-Hall,* volume 3, 1973, 21,328.

[15]*F. E. Watkins Motor Co. v. Comm.*, 31 TC 288, Note 7.

[16]*Bremerton Sun Publishing Co.*, 44 TC 566.

[17]*Federal Taxes and Management Decisions*, by Ray M. Sommerfeld; Richard D. Irwin, Inc., Homewood, Illinois, 1974.

[18]*Prentice-Hall,* volume 3, 1973, 21,328

[19]*F.E. Watkins, op. cit.*

[20]*Prentice-Hall,* volume 3, 1973, 21,301.

[21]*Prentice-Hall 1976 Federal Tax Course*, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1975, p. 3126.

Personal Management
(Continued from page 23)

lated to the individual's goals and objectives such as:

1) the degree of financial independence desired,

2) the level of retirement income desired,

3) the investment level desired,

4) the standard of living level desired,

5) and how these goals and objectives fit into the individual's income tax picture.

According to Mr. Conway, once the above objectives have been set the individual can begin to assemble a financial plan.

The two methods discussed above are basically the same. The first step is to prepare a budget, which forces us to look ahead and to consider how the various classes of income and expense fit together. We all remember from our budgeting classes in school that the primary benefit of a budget is that it makes us put down in writing exactly what our plans are. It is very easy to underestimate expenses. Not until we actually start tallying up exactly what we spend for what can we accurately determine the total expenditures related to each expense category. The budgeting process also points out to us the many ways in which we can possibly cut expenditures.

Perhaps the most difficult aspect of the financial plan is the necessary self-discipline. Or, perhaps, it is just facing up to the fact that we do need a financial plan and then doing something about it.

San Diego In '76

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

'Spirit of '76' — Spring Conference

Town and Country Hotel
June 9-13

Technical sessions qualifying for continuing education credits on:

- Economics
- Metric System
- Law
- Accounting
- Taxes
- Management

★ HISTORIC TOURS ★ OUTSTANDING SPEAKERS

★ EXCELLENT ACCOMMODATIONS

★ AN EVENING AT THE SPACE THEATRE — INCLUDING BUFFET

★ RENEW THE "SPIRIT OF '76 " IN AMERICA'S FINEST CITY

GENERAL CHAIRMAN:
Corinne Doran
2511 Denver Street
San Diego, California 92101
714-275-2226

REGISTRATIONS:
Dixie Sacket
13162 Hwy. 8 Business, Sp. 112
El Cajon, California 92021
714-443-5987

ASWA

American Society of Women Accountants