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THE AICPA PERSONNEL TESTING PROGRAM:
AN APPRAISAL

Submitted to
the Subcommittee on Personnel Testing
of the Committee on Relations with Universities

January 26, 1968



AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS

666 FIFTH AVENUE
NEW YORK, N. Y. 10019

January 26, 1968

To the Members of the Subcommittee on Personnel Testing:

Here is the report you requested at the last Subcommittee meeting, February 27, 1967. Preparing this report was extremely fruitful in acquainting me with the Personnel Testing Program of the Institute.

The Subcommittee expressed a desire for additional information concerning the user groups of the Testing Program. Who uses the program and why? Also, the Subcommittee requested information as to why colleges and CPA firms do not make wider use of the program. These are the primary issues to which this report is addressed.

In the process of gathering information concerning the users and non-users of the program, other information was obtained. These ancillary data may be helpful in assessing the administration of the program.

As is true for any data collecting exercise, decisions must be made concerning the methods and boundaries of investigation. Accordingly, the selection of material for inclusion in this study was based upon whether the potential benefit of having such data would more than offset the cost, particularly in time, of collecting such data. It is recognized that such decisions are largely subjective. Thus, after reading the report, you may have a desire for additional information. If so, please drop me a line, and I shall be pleased to investigate the possibility of obtaining it for you.

I have taken the liberty to suggest a number of decision-areas for the Subcommittee concerning the Personnel Testing Program. These are found in the last section of the report.

I hope that this report will be helpful to you in arriving at the much needed long-range decisions concerning the future operation and administration of the testing program.

Cordially,

Doyle Z. Williams, Manager
Special Educational Projects

DZW:sn
Enclosure

THE AICPA PERSONNEL TESTING PROGRAM:
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of the Committee on Relations with Universities

Prepared by
Doyle Z. Williams
January 26, 1968

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THE AICPA PERSONNEL ACCOUNTING TESTING PROGRAM: AN APPRAISAL

I. THE NATURE AND SCOPE OF THE STUDY

Authorization and Presentation of the Study

This study appraising the Personnel Accounting Testing Program of the American Institute of Certified Public Accountants is submitted to the Institute's 1967-68 Subcommittee on Personnel Testing of the Committee on Relations with Universities: Wayne P. Tenney, Chairman, John S. Allen, Wilton T. Anderson, Peter A. Firmin, G. Kenneth Nelson and Claude W. Rodgers. This report was authorized by the Subcommittee on February 27, 1967 and was prepared by Doyle Z. Williams.

An Overview of the Problem

In 1946, the American Institute of Certified Public Accountants launched a new program--the Personnel Testing Program. This program was designed to provide tests in accounting for both college students and practicing accountants, particularly new entrants into the profession. Later, the testing program was extended to the high school level.

Since the program's initiation more than twenty years ago, there has been no comprehensive appraisal of the program by an Institute Committee. In 1966, it became apparent that a reappraisal was appropriate. Accordingly, background and descriptive material concerning the program was distributed to the Subcommittee on Personnel Testing. A Subcommittee meeting was held on February 27, 1967, in the

offices of the Institute.

The minutes of the meeting of the Subcommittee indicate that there was general agreement as to the need for a reevaluation of the testing program. The Institute's staff was requested to submit to the Subcommittee an over-all plan for this reevaluation. The plans for this report were distributed to the Subcommittee on May 23, 1967.

The information for this study was gathered from the files of the American Institute of Certified Public Accountants, published articles, records and periodic reports of the AICPA Testing Project Office, minutes of meetings of the Subcommittee on Personnel Testing, conversations with the Institute staff and the AICPA Testing Project Office staff, interviews with users and nonusers of the program, and mail questionnaires.

Limitations and Scope of the Study

The basic objective of this study is to reevaluate the purposes and administration of the Personnel Accounting Testing Program as the basis for subsequent decisions concerning the future administration and operation of the program.

More specifically, this study attempts to define the original objectives of the various facets of the Personnel Testing Program and detect any changes which may have occurred over time. Among the questions about which this report attempts to provide insight include: Who are the users of the program? Why do they use the program? How do they use the results? Why do the non-users not use the program? Are the tests and tests services, in fact, meeting the program's

objectives and serving the needs of the profession? What are the testing needs of the profession?

This report is limited, then, to a study of objectives of the Personnel Testing Program, its users, reasons for using or not using the program, and how the program is used. Thus, no attempt is made to appraise the content, reliability, or validity of the tests. It is hoped, however, that this study will serve as an effective working guide to the Subcommittee in its subsequent review of these and other facets of the program. Suggested areas for decision by the Subcommittee are included in the last section of this report.

Approach of the Study

In attempting to place the present status of the Personnel Testing Program in its proper perspective, this study first reviews the origin and development of the program. The original purposes and objectives of the program are underscored in this review. The results of recent validation studies are briefly presented.

Against this backdrop, the study accesses the program's growth for the last ten years. Attempts are made to define the user groups and the extent of each group's participation in the program.

The next section of this investigation summarizes information from interviews with and mail questionnaires to current users, past users, and non-users of the program. The major emphasis of this section of the report concerns "Why is the program used?" "Why is it not used?" "Is it fulfilling its objectives?" "What deficiencies exist in the administration of the program?"

Finally, the report suggests areas for the Subcommittee's consideration and action. A number of questions are posed; the answers will determine the future direction and operation of the program.

II. ORIGIN AND DEVELOPMENT OF THE PROGRAM

The Development of the Program

The first organizational act leading to the Personnel Testing Program occurred in 1943. In that year, the American Institute of Certified Public Accountants appointed a Committee on Selection of Personnel "to investigate procedures for selecting and guiding into public accounting well qualified young people and to develop a program of selection."¹ The committee's chairman, W. W. Nissley, began a series of extensive discussions with Dr. Ben D. Wood of Columbia University concerning the project. After considerable discussion in exploratory meetings of the committee, Dr. Wood was appointed to direct the project, and the Educational Records Bureau was designated as the operating organization--or project office. Dr. Arthur E. Traxler and Robert Jacobs soon joined Dr. Wood in the operation of the Program.

Some of the important questions tackled at the outset of the program were: (1) What areas of appraisal should be attached? (2) Was objective testing suitable for accounting? and (3) Were any satisfactory tests available in this field?

The committee concluded the accounting profession had a definite need for appraisal in four areas: (1) intelligence or general aptitude for accounting, (2) knowledge and achievement in the use of accounting principles and procedures, (3) vocational interests, and (4) personal

¹Ben D. Wood, Arthur E. Traxler, and Warren W. Nissley, "College Accounting Testing Program," The Accounting Review, XXIII (January, 1948), 63.

qualities.

The committee, after surveying the availability of testing instruments in other fields and experience of other professional groups, decided that appraisal of personal qualities should be accomplished with procedures other than tests. However, the committee concluded that experimentation with objective tests in the other three areas was desirable. In 1947 the committee published Bulletin No. 2, Objective Examinations in Professional Accounting, presenting a convincing case for the use of objective examinations in accounting.

The Strong Vocational Interest Blank was selected by the Committee for appraisal of vocational interests. Concluding that no suitable objective tests of accounting aptitude or achievement tests were available, the committee sought to construct two types of examinations. These were tests of (1) orientation toward, or aptitude for, accounting, and (2) achievement tests. The Orientation Test was developed as a wide-range examination for use by college freshmen considering the accounting field, by students in any year of the study of accounting, and by men at any level of employment in the field.²

The construction of the achievement tests was undertaken on two levels. The Level I Test was designed for students "who had completed one year of the study of accounting and the Level II Test was planned for seniors in the last semester of accounting study and for use with

²Arthur E. Traxler, "The College Testing Program for Accounting Students," The New York Certified Public Accountant, XIX (June 1949), 352-353.

men in or seeking employment in the accounting field."³

In its final form, the Orientation Test required fifty minutes of working time and yielded a verbal score, a quantitative score, and a total score. The Achievement Level I and Level II Tests each provided a total score on accounting knowledge. The Level I Test was a two-hour examination while the Level II Test was planned for administration in a working period of four hours. However, considerable demand arose for a briefer Level II Test, and in 1949 a two-hour examination, containing fewer questions on accounting and none on auditing, was made available.

For servicing and administration purposes, the testing program was divided into two programs from the outset: the College Accounting Testing Program and the Professional Accounting Testing Program. The College Testing Program was started in the Fall of 1946 and the Professional Testing Program was begun in the Spring of 1947. The Orientation Test, Level I and Level II Achievement Tests, and the Strong Vocational Interest Blank have been made available continuously through each program. The use of the tests was later (apparently in 1948) extended to include business and industrial organizations desiring to test accounting personnel. A lower level Orientation Test was developed and offered for high school use for the first time in September, 1953.

Administration of the Testing Project Office

From the program's inception until 1965, the Testing Program was administered through the Educational Records Bureau. A Testing Project office was created within the Bureau to assume all the administrative

³Ibid, 353.

details of the program including processing of orders, rendering scoring services, pre-testing new forms of tests, answering inquiries concerning the program, and performing certain research and development activities. The AICPA has maintained control of the program and has been responsible for developing the content of the tests.

In August 1, 1965, the Testing Project Office was transferred to The Psychological Corporation. In the meantime, general direction of the Project Office was assumed by Dr. Robert North.

Financing of the Testing Program

The basic development of the program was financed through contributions from public accounting firms and subsidies from the Institute. Approximately \$100,000 from these sources was spent on the program. In the initial stages of the program the tests were distributed at no charge, except for the Strong Vocational Interest Blank. A charge of \$1.80 was made to individuals below college senior level taking this test.

In the Fall of 1948, the first charges were made for the Achievement and Orientation Tests. However, Institute subsidies were required almost annually to continue the program until its transfer to the Testing Project Office of The Psychological Corporation in 1965. Under the present agreement with The Psychological Corporation, the fee structure for the tests must be approved by the Institute. In addition, 20 per cent of all revenue from the Professional Program are deposited in a Research and Development Fund for the development of new tests and norms. Finally, The Psychological Corporation absorbs

any financial losses in the total Personnel Accounting Testing Program. At present the program is on a self-financing basis from the Institute's standpoint, except for the preparation of the tests which has been performed by the Institute staff with the occasional assistance of outside consultants.

Original Objectives of the Program

With this background of how the program was organized and is administered, it is well to examine the rationale for the program.

The charge to the Committee on Selection of Personnel upon its creation was "to investigate procedures for selecting and guiding into public accounting well qualified young people and to develop a program of selection."⁴ In a word, recruitment was the objective. It will be recalled that in 1943 the profession was facing on one hand an acute shortage of personnel and on the other an acute demand for better qualified personnel--a situation not unlike that of today.

Armed with its charge, the Committee sought to "develop machinery for the measurement of qualifications required of professional public accountants."⁵ As the committee wrestled with its general objective, new aspects of the program begin to emerge. In 1948 the Committee wrote:

The goal, broadly stated, was ... reasonably clear: it was to develop and establish techniques for the discovery of accounting ability, achievement, and interests -- early.

There were related sub-goals -- finding ways and means of attracting more young men to the profession; helping students to test their capacities in advance; helping schools to compare their students

⁴Ben D. Wood, et.al., loc. cit.

⁵"Selection of Professional Personnel," (editorial), The Journal of Accountancy, LXXVII (February, 1944), 97.

with those of other institutions, helping accounting firms, small as well as large, to find men.⁶

Arthur Traxler, writing in 1949, stated the objectives of the college program somewhat differently.

From the beginning, there have been two general purposes of the testing program in the colleges. The first of these is selection of promising students for the study of accounting and guidance of students during the period of study. The second purpose is the placement of graduates of accounting courses in positions. These two purposes are equally important.

As the program has gone forward, a third purpose has emerged. This purpose is to provide colleges with a means for self-evaluation of their own courses of study and instruction in accounting.⁷

In respect to the second purpose mentioned by Traxler--placement-- the committee stated in the early stages of the program that its goal was eventually for all college accounting graduates to take the tests. The scores would then be available for placement purposes and the Professional Program could then be phased out. This objective has not materialized.

The original basic objectives of the total Personnel Accounting Testing Program may be summarized as follows:

1. Recruitment of quality personnel in quantity to the accounting profession.
2. To assist public accounting firms in personnel selection.

⁶Committee on Selection of Personnel, "A New Yardstick for Accounting Skills," The Journal of Accountancy, LXXXVI (December, 1948), 453.

⁷Traxler, op. cit., p. 354. See also John L. Carey, "The Development of Aptitude Tests for Accounting," The Accounting Review XX (January, 1945), 1-7.

3. To assist students in placement upon graduation from college
4. To assist colleges and universities in comparing their students with those of other institutions.

Current Objectives

The original objectives of recruitment and counseling, selection, placement and intercollege comparisons have remained as guideposts for the testing program over the years. Table 1 translates these broadly stated objectives into the terminology used in the latest brochures of the three programs. The test which is designed to achieve each objective is also noted.

TABLE 1
PROGRAM OBJECTIVES AND TESTS

<u>Objective</u>	<u>Test</u>
I. <u>College Program</u>	
a. To assist colleges in advising students considering a career in accounting	Strong Vocational Interest Blank Orientation Test
b. To provide the student and teacher with a progress check early in the accounting curriculum	Achievement Test -- Level I
c. To assist accounting seniors in finding employment by furnishing objective measurements of aptitude and proficiency to prospective employers	Strong Vocational Interest Blank Orientation Test Achievement Test -- Level II
d. To assist colleges in comparing the aptitude and achievement of their students with those of a large group of students	Orientation Test Achievement Tests -- Level I and II

<u>Objective</u>	<u>Test</u>
II. <u>Professional Program</u>	
a. To assist accountants in selecting new staff members	Strong Vocational Interest Blank Orientation Test Achievement Test -- Level I
b. To assist accountants in making decisions regarding the retention of temporary employees	Strong Vocational Interest Blank Orientation Test Achievement Tests -- Level I and II
c. To assist accountants in the up- grading and promotion of permanent staff members	Strong Vocational Interest Blank Orientation Test Achievement Test -- Level II
III. <u>High School Program</u>	
a. To assist in high school guidance	Orientation Test

Although not mentioned in the literature or promotional material, one additional objective of the college program is apparent. That objective is the influence the Achievement Tests have on strengthening the accounting curricula.

In summary, the basic objectives of the Personnel Accounting Testing Program may be listed as follows:

1. To assist in recruitment, including guidance and counseling.
2. To assist employee selection, retention and promotion.
3. To assist in the placement of college accounting graduates.
4. To assist colleges and universities in comparing their students with those in other schools.
5. To assist in the upgrading of college accounting curricula.

The first three objectives were firmly established at the outset of the program. The last two have emerged as the program has become operational.

The Bailey Report

Before leaving the historical evolution of the Personnel Testing Program, one other development should be mentioned. The Institute's Commission on Standards of Education and Experience for Certified Public Accountants made the following recommendation in 1956:

The Commission recommends that a nation-wide examination be devised which would test the college graduate's intellectual capacity, his academic achievements, and his aptitude for public accountancy...

The examination would provide a measure of each candidate's intellectual capacity, his academic achievements through prior study, and his aptitude for public accountancy, in terms of nation-wide objective norms. The primary purpose of the examination is to assist educational institutions in selecting individuals who have the capacity and aptitude to undertake, with benefit, the training to be provided through the proposed professional programs.

The construction and validation of the recommended examination should be accomplished by an organization which is independent of schools whose graduates are to be tested. It is suggested that the Committee on Accounting Personnel of the American Institute of Accountants would be an appropriate body to undertake this responsibility.⁸

The Council of the Institute appointed a Special Committee to study the recommendations of the Commission. As the Special Committee was chaired by George Bailey, it is sometimes referred to as the Bailey Committee. On the matter of a qualifying examination, the Special Committee reported:

⁸ Standards of Education and Experience for Certified Public Accountants (Ann Arbor: University of Michigan, 1956), pp. 129-130.

The qualifying examination may eventually be a problem warranting considerable attention as the Commission suggests. Intelligence, an interest in and an aptitude for public accounting are minimum requirements for future success in this field. There are other attributes which eventually weigh heavily in determining whether or not and in what degree a person may become a successful practitioner.

The AICPA Committee on Personnel Testing has a battery of tests which measure aptitude, interests, and achievement in accounting courses. The Special Committee believes the Committee on Personnel Testing should attempt to adapt these tests which appear to have high validity for use along with other data traditionally used by university counselors in advising applicants interested in postgraduate education in accountancy.⁹

As a result of the recommendations of the Bailey Committee, Council adopted the following resolution, among others:

That studies be made by the AICPA Committee on Personnel Testing to ascertain whether the tests in the AICPA testing program can be adapted or new tests developed to serve the purpose of screening applicants for postgraduate accounting educational programs.¹⁰

Apparently, the matter of using the Testing Program in graduate school screening has been allowed to rest with the passage of the above resolution by Council. As the use of national graduate school admission examinations, especially the Admissions Test to Graduate Study in Business, has increased rapidly in recent years, the need for additional testing in this area has resuscitated. It would seem appropriate for the Committee on Relations with Universities to seek to work through the Committee on Education and Experience for CPAs in having the records

⁹Special Committee Report on the Report of the Commission on Standards of Education and Experience for CPAs, April, 1959, p. 11.

¹⁰Ibid., p. 1

cleared of the above mentioned Council resolution. This resolution should not be continually carried forward without action.

Recent Validation Research

Over the years, a number of research efforts have been made attempting to ascertain the validity of the various tests in the program. Two recent studies seem particularly pertinent to this reappraisal.

Relation of Scores to CPA Exam Success

One recent study sought to determine the relationship between test scores and success on the CPA examination. The candidates for the November 1966 CPA examination in forty-seven states completed a Uniform Statistical Information Questionnaire. Among the data obtained from this questionnaire was information about whether or not the candidate had taken the Orientation Test and/or the Level II Achievement Test. A comparison of the scores on the College Accounting Tests with the candidates' success on the CPA examination is reported in Table 2.

TABLE 2
RELATION OF TEST SCORES TO CPA EXAMINATION SUCCESS
FOR THE NOVEMBER, 1966 CPA EXAMINATION

Orientation Test Percentile	No. of Cand.	CPA Exam. Results		Level II Achievement Test Percentile	No. of Cand.	CPA Exam. Results	
		Per Cent Passed or Conditioned	Per Cent Given No Credit			Per Cent Passed or Conditioned	Per Cent Given No Credit
90-99	243	63	37	90-99	387	67	33
75-89	168	47	53	75-89	472	58	42
50-74	161	52	48	50-74	569	50	50
25-49	132	38	62	25-49	346	34	66
0-24	156	29	71	0-24	256	25	75
Total Group	860	48	52	Total Group	2,030	49	51

In respect to the Orientation Test, it is noted that of the candidates who scored in the 90-99 percentile, 63 per cent either passed all parts of the examination which they were eligible to take, or conditioned. On the other hand, 37 per cent of the candidates scoring in the 90-99 percentile on the Orientation Test, received no credit on the CPA examination. The relationship of the Level II Achievement Test scores to CPA examination success appears higher and more consistent than for the Orientation Test.

Test Scores as Predictors of Professional Success

A second study was made in 1964-65 which attempted to determine the ability of the Orientation and Level II Achievement Tests to serve as predictors of professional success. Data was obtained for more than 500 employed accountants in four national firms and for more than 1,000 accountants in 224 smaller firms. Table 3 shows the relationship between percentile ranks on the tests and the ratings by one national firm studies.¹¹ The data for the smaller firms are presented in Table 4.

¹¹The results for three additional firms are reported in The Journal of Accountancy, CXXII (August 1966), pp. 80-81. This article is reproduced in Appendix A.

TABLE 3
THE RELATIONSHIP BETWEEN PERCENTILE RANKS ON THE ORIENTATION
AND LEVEL II ACHIEVEMENT TESTS AND RATINGS BY ONE NATIONAL FIRM

<u>Percentile Ranks on the Tests</u>	<u>Per Cent of Total Group</u>	<u>Ratings (Per Cent)</u>		
		<u>Below Average</u>	<u>Average</u>	<u>Above Average</u>
75-100 on both	14	--	13	87
75-100 on one, lower on other	33	3	25	72
50-74 on both	12	8	23	69
50-74 on one, lower on other	20	14	41	45
1-49 on both	21	4	61	35
Total Group	100	5	34	61

TABLE 4
THE RELATIONSHIP BETWEEN PERCENTILE RANKS ON THE ORIENTATION
AND LEVEL II ACHIEVEMENT TESTS AND RATINGS BY 224 SMALL FIRMS

<u>Percentile Ranks on the Tests</u>	<u>Per Cent of Total Group</u>	<u>Ratings (Per Cent)</u>		
		<u>Below Average</u>	<u>Average</u>	<u>Above Average</u>
75-100 on both	9	12	34	54
75-100 on one, lower on other	25	11	43	46
50-74 on both	8	24	46	30
50-74 on one, lower on other	20	26	49	25
25-49 on both	7	30	50	20
25-49 on one, lower on other	15	34	53	13
1-24 on both	16	58	35	7
Total Group	100	28	44	28

Again this study reveals a positive relationship between percentile rankings and ratings by the firms. The Orientation and Level II Achievement Tests are, to some extent, predictors of professional success.

III. PARTICIPATION IN THE PROGRAM

After reviewing the origin, organization, objectives, and recent validity studies involving the testing program, it is now appropriate to turn attention to the participation in the program. How extensively is it used and by whom? In attempting to answer this question, it seems helpful to divide the analysis into its three programs--college, professional and high school. This analysis focuses upon the Institute prepared test, with reference to the Strong Vocational Interest Blank as appropriate. As there were only 869 Strong Blanks used in the College Program in 1966-67, and 670 used in the Professional Program in 1966, detailed statistics for this test are not given in all of the tabulations and analyses which follow.

College Accounting Testing Program

Ten year review. College conditions, curricula, and student enrollments change significantly over time. Thus statistics concerning the participation in the College Accounting Testing Program for more than ten prior years would be, for the most part, irrelevant. However, annual statistics for the last ten years are revealing in evaluating the growth of the program. Table 5 reflects the number of tests used in the College Accounting Testing Program for the ten year period ending June 30, 1967.

TABLE 5
COLLEGE ACCOUNTING TESTING PROGRAM UTILIZATION
for the ten year period ending June 30, 1967

<u>Year</u>	<u>Adult Orientation Test</u>	<u>Level I Achievement Test</u>	<u>Level II Achievement Test</u>	<u>Total</u>
1966-67	9,900	16,000	4,700	30,600
1965-66*	9,900	14,900	4,800	29,600
1964-65*	10,000	15,300	4,900	30,200
1963-64	9,900	13,200	4,700	27,800
1962-63	10,300	14,800	4,300	29,400
1961-62	10,400	14,700	4,100	29,200
1960-61	9,000	14,700	3,400	27,100
1959-60	8,400	11,500	3,600	23,500
1958-59	9,500	13,000	4,000	26,500
1957-58	9,600	12,700	3,700	26,000

*The reporting period was 11 months instead of the usual 12.

Generally, very little growth is noted in the College Accounting Testing Program for the last ten years. When the individual annual totals are considered, the over-all growth of the total program becomes even more obscured. For example, the participation in the program in 1962-63 was only slightly less than that recorded in 1966-67. When considered against the backdrop of the growth in college enrollments for the last ten years, the program has fallen far short of holding its own, proportionately speaking.

The Level I Achievement Test has accounted for most of the growth

in the College Program. But here again, its 1966-67 highwater mark was almost reached in 1964-65. While the Level II Achievement Test has recorded a gain of 1,000 in the last ten years, its use in 1966-67 was not as high as in 1964-65. The use of the Orientation Test has been slightly higher in three of the last ten years than in 1966-67. The entire program reflects a very erratic pattern of usage. However, the participation of as few as four or five of the larger schools can affect significantly the totals for an individual test.

In summary, whatever steps have been taken, if any, in the last ten years to enhance participation in the College Accounting Testing Program have not been overly successful. In fact, it appears that the program may not have held its own.

Users of the program. In addition to considering the number of tests used, it may also be enlightening to identify the users of the program. What is the nature of the user population? A brief review of the records reveal that the number of participating institutions and their distribution in recent years is similar to that presented in Table 6 for 1966-67.

As might be surmised, the number of liberal arts colleges participating in the program is almost twice as large as any other group and constitutes about 45 per cent of the total number of participating institutions. Schools of business in universities also account for a sizeable number of participating schools. Technical colleges and independent business schools participate on a very nominal basis. Thus, it appears that four-year colleges and universities (70%) and junior colleges (12%) are the main participants in the program. The program participants are from the "academic" college community.

TABLE 6
PARTICIPATION BY TYPE OF COLLEGE IN 1966-67

<u>Type of Institution</u>	<u>Number</u>	<u>Per Cent</u>
Liberal Arts Colleges	131	44.5
Schools of Business in Universities and Colleges	77	26.2
Junior Colleges	34	11.6
State Teachers Colleges (see note)	20	6.8
Technical Colleges	18	6.1
Independent Business Schools	<u>14</u>	<u>4.8</u>
Total	<u>294</u>	<u>100.0</u>

NOTE: The above data was obtained from the AICPA Testing Project Office, College Accounting Testing Program, Bulletin 52, 1966-67, July, 1967. The classification of schools was verified with Allan M. Carter (editor), American Universities and Colleges (ninth edition; Washington, D.C.: American Council on Education, 1964). The only significant difference noted was for those schools classified as "State Teachers Colleges." Only two college users were identified by Carter as solely a "Teachers College." The remainder of the Schools so classified in the Table have apparently moved into a multipurpose program in recent years.

But the number of institutions participating could be misleading in evaluating utilization of the program, particularly if a demarcation is drawn between liberal arts colleges and schools of business in universities. This point is illustrated in Table 7. The statistics indicate that while a far greater number of liberal arts schools than schools of business in universities participate in the program, the liberal arts colleges actually use less tests. In 1966-67 the liberal arts colleges used 33.7 per cent of the total; schools of business in universities 36.3 per cent, and junior colleges

TABLE 7
 QUANTITIES OF EACH TEST USED IN THE
 1966-67 COLLEGE PROGRAM

<u>Type of Institution</u>	<u>Orientation Test</u>		<u>Level I Achievement Test</u>		<u>Level II Achievement Test</u>		<u>Total</u>	
	<u>Quantity</u>	<u>Per Cent</u>	<u>Quantity</u>	<u>Per Cent</u>	<u>Quantity</u>	<u>Per Cent</u>	<u>Quantity</u>	<u>Per Cent</u>
Liberal Arts Colleges	2,300	23.2	6,200	38.8	1,800	38.3	10,300	33.7
Schools of Business in Universities	4,000	40.5	5,200	32.4	1,900	40.5	11,100	36.3
Junior Colleges	2,000	20.2	1,900	11.9	300	6.4	4,200	13.7
State Teachers Colleges	100	1.0	1,400	8.8	200	4.2	1,700	5.5
Technical Colleges	1,200	12.1	1,100	6.9	300	6.4	2,600	8.5
Independent Business Schools	<u>300</u>	<u>3.0</u>	<u>200</u>	<u>1.2</u>	<u>200</u>	<u>4.2</u>	<u>700</u>	<u>2.3</u>
Total	<u>9,900</u>	<u>100.0</u>	<u>16,000</u>	<u>100.0</u>	<u>4,700</u>	<u>100.0</u>	<u>30,600</u>	<u>100.0</u>

NOTE: The Strong Vocational Interest Blank is not included in the above data. The 869 SVTB's were administered as follows: 65 per cent (546) by Technical Colleges; 17 per cent (150) by Liberal Arts Colleges; 16 per cent (135) by Schools of Business in Universities; and 2 per cent (38) by other types of institutions.

13.7 per cent. When viewed from the quantity of tests used, again the "academic" colleges are the mainstays.

When the use of each type of test is noted, the picture takes on a slightly different complexion. For example, junior colleges use almost as many Orientation Tests as liberal arts colleges, and schools of business in universities use twice as many as either group. For the Achievement Tests, the utilization by liberal arts schools is close to that of schools of business administration. Junior colleges use the Level I Achievement Test in about the same numbers as they do the Orientation Test. As a per cent of the total Level I Achievement Tests used, however, junior college use is small.

In summary, the schools of business in universities are more interested in the Orientation Test than are liberal arts colleges, and liberal arts colleges use more Achievement Tests than schools of business. Speculation would indicate that schools of business in universities are more concerned with counseling of students, while the smaller liberal arts colleges are mainly concerned with comparing their students' achievement with that of other institutions.

AACSB schools. There is natural interest concerning the participation of the schools accredited by the American Association of Collegiate Schools of Business -- the only accrediting agency in the area of business administration. Table 8 provides statistics concerning the relative participation of AACSB schools. While 16 per cent of the schools participating in the program were AACSB schools, such data in itself is not particularly enlightening. The schools

TABLE 8
PARTICIPATION BY AACSB SCHOOLS IN THE
COLLEGE PROGRAM IN 1966-67

	<u>Number</u>	<u>Per Cent</u>
Non-AACSB Schools*	180	61.2
AACSB Schools	48	16.3
Junior Colleges	34	11.6
Technical Colleges	18	6.1
Independent Business Schools	<u>14</u>	<u>4.8</u>
Total	<u>294</u>	<u>100.0</u>

*Includes liberal arts colleges, state teachers colleges and other four year and graduate schools, excluding technical colleges.

have, for the most part, the larger accounting programs. Therefore, it may be surmised that the quantity of tests used in 1966-67 would be greater than 16 per cent. Table 9 confirms this conclusion. AACSB schools use approximately one-third of all Orientation Tests and Level II Achievement Tests and approximately one-fourth of the Level I Achievement Tests. The non-AACSB colleges (which include schools with four year or graduate programs) use about the same number of Orientation Tests as AACSB Schools but twice as many Level I Achievement Tests. Again, it appears that the non-AACSB accredited schools are less interested in counseling than in evaluating their students' achievement.

Before leaving the subject of who uses the college program and how much, one additional facet of the program's utilization may be considered. While the statistics presented reflect who uses the program, the question naturally arises as to who does not use the program. Table 10 provides some partial answers.

It is interesting to note that the four-year colleges in the

TABLE 9
 QUANTITIES OF EACH TEST USED BY
 AACSB SCHOOLS IN 1966-67

	Orientation Test		Level I		Level II		Total	
	<u>Quantity</u>	<u>Per Cent</u>	<u>Quantity</u>	<u>Per Cent</u>	<u>Quantity</u>	<u>Per Cent</u>	<u>Quantity</u>	<u>Per Cent</u>
Non-AACSB Colleges*	3,400	34.4	8,700	54.4	2,200	47.0	14,300	46.7
AACSB Colleges	3,000	30.3	4,100	25.6	1,700	36.0	8,800	28.8
Junior Colleges	2,000	20.2	1,900	11.9	300	6.4	4,200	13.7
Technical Colleges	1,200	12.1	1,100	6.9	300	6.4	2,600	8.5
Independent Business Schools	<u>300</u>	<u>3.0</u>	<u>200</u>	<u>1.2</u>	<u>200</u>	<u>4.2</u>	<u>700</u>	<u>2.3</u>
Total	<u>9,900</u>	<u>100.0</u>	<u>16,000</u>	<u>100.0</u>	<u>4,700</u>	<u>100.0</u>	<u>30,600</u>	<u>100.0</u>

*Includes liberal arts colleges, state teachers colleges, and other four year and graduate schools, excluding technical colleges.

TABLE 10
PRESENT, PAST AND NON-USERS OF THE
COLLEGE PROGRAM

	<u>AACSB Schools</u>		<u>Non-AACSB Schools*</u>		<u>Total</u>	
	<u>Number</u>	<u>Per Cent</u>	<u>Number</u>	<u>Per Cent</u>	<u>Number</u>	<u>Per Cent</u>
Participating in 1966-67	48	37.8	180	33.6	228	34.5
Participating in years prior to 1966-67 but not in 1966-67	48	37.8	164	30.8	212	32.0
Never participated	<u>31</u>	<u>24.4</u>	<u>190**</u>	<u>35.6</u>	<u>221</u>	<u>33.5</u>
Total	<u>127</u>	<u>100.0</u>	<u>534</u>	<u>100.0</u>	<u>661</u>	<u>100.0</u>

*Includes liberal arts colleges, state teachers colleges, and other four year and graduate schools, excluding technical colleges.

**This figure is an estimate based upon a roster of schools invited to CBOK seminars. This roster included all schools in the category defined above(*) which offer accounting.

country which offer accounting are almost evenly divided into three groups: (1) those participating in 1966-67; (2) those which have participated in the past but not in 1966-67; and (3) those schools which have never participated. However, the non-user group tends to be composed of smaller schools than is true for the other two groups. In the case of AACSB schools, only one-fourth have never used the tests. A quick review of the records for this non-user group reveal that about one-third are Graduate Schools only. Therefore, most of the AACSB schools with undergraduate programs have participated in the College Accounting Testing Program at one time or another.

A closer examination of the schools who have participated in the program but have dropped out may provide some additional insight.

Table 11 indicates that slightly more than one-half of the past

participants have utilized the College Accounting Testing Program since 1959. Only about one-fifth have not used it since 1954. A slightly larger per cent of the AACSB schools have not participated as recently as non-AACSB schools. Over-all, the majority of past participants have utilized the program recently. A large number in this group seem to be "in-and-outers." They use the program only periodically.

TABLE 11
ANALYSIS OF YEAR OF LAST PARTICIPATION OF
PAST PARTICIPANTS IN COLLEGE PROGRAM

<u>Year of Last Participation</u>	AACSB Schools		Non-AACSB Schools		Total	
	<u>Number</u>	<u>Per Cent</u>	<u>Number</u>	<u>Per Cent</u>	<u>Number</u>	<u>Per Cent</u>
1960-66	24	50.0	94	57.3	118	55.7
1955-59	9	18.8	38	23.2	47	22.2
1950-54	12	25.0	29	17.7	41	19.3
Before 1950	<u>3</u>	<u>6.2</u>	<u>3</u>	<u>1.8</u>	<u>6</u>	<u>2.8</u>
Total	<u>48</u>	<u>100.0</u>	<u>164</u>	<u>100.0</u>	<u>212</u>	<u>100.0</u>

Professional Program

Unfortunately, the data concerning the Professional Accounting Testing Program is not as accurate or as detailed as for the College Accounting Testing Program. One reason for this limitation is inherent in the administration of the program. For example, a professional user may order a number of test booklets, keep them, and use them several times without reporting to the Testing Project Office, even though he is requested to report every testing. Or the professional

user may order an over supply of answer sheets in a given year and use from this stock in subsequent years, again not informing the Testing Project Office of his use in each year.

Another reason for the inability to analyze the data in as much detail as may be desirable is the fact that published sources of information about CPA firms and corporations are more limited than is the case for colleges and universities. Finally, it is not readily determinable from the records of the AICPA Testing Project Office the degree of participation by Certified Public Accounting firms versus industrial organizations. This information, however, will be available in the future.

Ten year review. Despite these limitations, perhaps a brief analysis of the available data will nonetheless be helpful in obtaining a feel for the size of the program. Table 12 reflects the usage of the Professional Accounting Testing Program for the last ten years.

The Professional program has almost doubled in the last ten years. But its growth, like the College Program, has been erratic with 1962-63 being its highwater mark until 1965-66. Generally, the program seems to have reached a plateau.

Users of the program. A closer examination of selected aspects of the program provide some insight to the program users. Table 13 provides some statistics, although not wholly adequate in that no distinction is made between CPA and industrial firms.

The most significant information from this table is gained by considering each test individually, rather than the program as a whole. For example, the Canadian Institute of Chartered Accountants and the Civil Service administer approximately two-thirds of the Orientation

TABLE 12
UTILIZATION OF THE PROFESSIONAL ACCOUNTING TESTING PROGRAM
for the ten year period ending December 31, 1966

<u>Fiscal Year*</u>	<u>Adult Orientation Test</u>	<u>Level I Achievement Test</u>	<u>Level II Achievement Test</u>	<u>Total</u>
1/1/66-12/31/66	5,700	1,200	4,400	11,300
8/1/65-6/30/66	6,100	1,100	6,100	13,300
9/1/64-7/31/65	3,800	400	5,300	9,500
1963-64	4,900	700	4,700	10,300
1962-63	5,700	500	5,000	11,200
1961-62	3,900	800	3,700	8,400
1960-61	3,000	400	2,600	6,000
1959-60	1,600	400	2,800	4,800
1958-59	2,500	400	2,400	5,300
1957-58	1,900	1,200	2,400	5,500

*In 1966, the calendar year was adopted as the fiscal year. In periods prior to 9/1/64, the fiscal year ended on August 31.

NOTE: The Strong Vocational Interest Blank is not included in the above data. In 1966, 670 SVIBs were used.

TABLE 13
ADMINISTRATION OF PROFESSIONAL ACCOUNTING TESTING PROGRAM IN 1966

	<u>Adult Orientation Test</u>		<u>Level I Achievement Test</u>		<u>Level II Achievement Test</u>		<u>Total</u>	
	<u>Number</u>	<u>Per Cent</u>	<u>Number</u>	<u>Per Cent</u>	<u>Number</u>	<u>Per Cent</u>	<u>Number</u>	<u>Per Cent</u>
CPA and Industrial Firms	1,900	33.3	1,000	83.3	2,000	45.4	4,900	43.4
Canadian Institute	2,000	35.1	--	--	--	--	2,000	17.6
Civil Service	<u>1,800</u>	<u>31.6</u>	<u>200</u>	<u>16.7</u>	<u>2,400</u>	<u>54.6</u>	<u>4,400</u>	<u>39.0</u>
Total	<u>5,700</u>	<u>100.0</u>	<u>1,200</u>	<u>100.0</u>	<u>4,400</u>	<u>100.0</u>	<u>11,300</u>	<u>100.0</u>

Tests used in the Professional Program. Although no specific statistics are readily available, industrial firms account for a portion of the remaining tests. And when the consumption by large national CPA firms is considered, use the Orientation Test by local practitioners is rather limited.

The Level I Achievement Test is the least used of these tests in the Professional Program. As CPA firms hire college graduates, this test is normally inappropriate in selecting professional staff. However, it has upon occasion been used by industrial firms for hiring personnel for low level record keeping activities. A small number of the Level I Tests is used by the Civil Service.

The Level II Achievement Test is designed for the college graduate in accounting. The Civil Service is a larger user of this test than CPA and industrial firms combined. Again, if the participation by industrial firms and large national CPA firms were eliminated from the 2,000 total tests in this category, it becomes readily apparent that the Level II Achievement Test is not widely used by the smaller CPA firms across the country.

The number of participants in the various categories of the Professional Program is not readily available. And as the extent of use by each participating unit would vary considerably, such information would provide little utility.

In summary, the Professional program has experienced some growth in the last ten years. However, the Canadian Institute, Civil Service, and industrial firms seem to be the prime users of the Orientation Tests. The Level I Test is little used. The Civil Service uses more than one-half of all the Level II tests administered. The remainder are used by

CPA firms and industrial enterprises.

High School Program

The High School Testing Program was begun in September, 1953.

The rationale for the program was stated as follows:

As a result of numerous inquiries from high schools, a decision was reached in 1952 to extend the testing program downward to the secondary school level so that results of an accounting test would be available for use in guidance. Accordingly, the construction of an accounting orientation test for high school seniors was undertaken.¹²

The current program brochure states:

The Accounting Orientation Test, High School Level, is an aptitude test designed to give high school counselors and teachers objective information about a student's learning potential in accounting and in the general area of business.¹³

In short, the stated objective of the program is guidance into (or out of) accounting as a career. The evidence indicates that the program was designed to stimulate the profession's recruiting efforts at the high school level.

An analysis of the use of the High School Orientation Tests may provide partial clues as to how well this objective has been realized. While Table 14 indicates that the Program has grown in the last ten years, usage has not been substantial until 1964-65. (The Testing Project Office records provided no real clue as to the reason for the

¹²Committee on Personnel Selection, College Accounting Testing Program; Results of the Spring, 1953 College Accounting Testing Program (New York: American Institute of Accountants, 1953), p.18.

¹³Manual of Instructions for Examiners (New York: American Institute of Certified Public Accountants, 1967), p.1.

doubling of the tests used in 1964-65. There was no change in state society use from the year before and a purchase by the Canadian Institute of Chartered Accountants affected the total increase only slightly.)

TABLE 14
USE OF THE HIGH SCHOOL ORIENTATION TESTS
for the ten year period ending December 31, 1966

<u>Fiscal Year*</u>	<u>Number</u>
1/1/66 - 12/31/66	13,700
8/1/65 - 6/30/66	15,900
9/1/64 - 7/31/65	15,600
1963-64	8,400
1962-63	6,300
1961-62	3,700
1960-61	5,600
1959-60	4,100
1958-59	4,800
1957-58	4,700

*In 1966, the calendar year was adopted as the fiscal year. In periods prior to 9/1/64, the fiscal year ended on August 31.

One further analysis of the use of the High School Orientation Test seems useful. Table 15 indicates that State Society of CPAs which sponsored the use of the tests in 1966 accounted for almost one-half of the total program.

As state societies account for almost one-half of the total High School Orientation Tests used, it is clear that the use of the test by high school counselors and teachers, relative to the total high school population, is nil. Many of the users in this group are found in

TABLE 15
 USERS OF THE HIGH SCHOOL ORIENTATION TESTS IN 1966

<u>Users</u>	<u>Quantity</u>	<u>Per Cent</u>
High Schools	7,400	54.0
State CPA Societies*	<u>6,300</u>	<u>46.0</u>
Total	<u>13,700</u>	<u>100.0</u>

*Kansas, Wisconsin and New Jersey

private schools. One reason for this may be the fact that the financial arrangements for the test can be more easily made in private schools than in public schools. Apparently, few, if any, public school boards have adopted the tests for the schools under their supervision.

Individual counselors and teachers become aware of the AICPA Orientation Tests through two main sources -- listing in the Psychological Corporation Catalog and announcement in the High School Kit of the Accounting Careers Council. There is some concern over the fact that the groups that would be attracted to the tests are high school teachers of bookkeeping. Most students taking high school bookkeeping are not likely to be college bound. Thus, this is not the group that will ultimately make the greatest contribution to the profession. Moreover, the program brochure states that "some course work in bookkeeping or other business subjects may help a student to do well on the tests..." A review of the test content confirms this observation.

It is clear that high school counselors are not using the tests

to any meaningful degree. Furthermore, recent study of accounting majors indicate that counselors have little impact upon a student's chosen career.¹⁴

In summary, the Accounting Orientation Test, High School Level, is little used by the counselors and teachers. The tests are more likely to appeal to the bookkeeping teacher and thus result in attracting the student whom some feel is less likely to have the abilities required for future professional success.

As it appears that the High School Program, as it is currently designed, is not making a positive contribution to the profession, no further research effort has been expended on this program. Serious consideration should be given immediately to the future of the High School Program.

¹⁴Ray M. Powell "Career Choices Among Beta Alpha Psi Members," The Accounting Review, XLI (July, 1966), p. 530. A similar conclusion is also reported by Wagner Thielens, Jr., Recruits for Accounting: How the Class of 1961 Entered the Profession (New York: Columiba University, Bureau of Applied Social Research, 1966), p. A-16.

IV. QUESTIONNAIRE RESULTS

The examination of the origin and development of the program provides perspective for evaluating the program as it exists today. Statistics concerning who uses the program and to what extent were presented in Part III. The question remains, why is the program used or not used, as the case may be. It appears that the users and non-users should be able to provide the most valid answers.

There are three basic groups into which all users or potential users may be categorized: (1) those who currently use the program; (2) those who have participated in the program in the past but did not do so in the most recent reporting year; and (3) those who, according to the Testing Project Office records, have never participated. These groups are hereinafter referred to as (1) current users, (2) past users, and (3) non-users, respectively.

It was decided to seek responses concerning the Personnel Testing Program from each of the three groups for both the College and Professional Programs. The first step was to interview a very small number, as the interview technique is time consuming, of users and non-users of the College and Professional Programs in the New York area. The purpose of these interviews was not only to obtain first hand responses concerning the problem but also to pre-test the appropriateness of the content of a mail questionnaire to be sent to a much larger group. These interviews proved extremely valuable in achieving these objectives.

After giving due consideration to the time and financial aspects of the appraisal, it was decided to limit the number of questionnaires to fifty each for the three groups--current users, past users, and non-users--in the College and Professional Programs. Thus, 150 questionnaires were mailed for each of the two programs--a total of 300. The results of the questionnaires are presented for each program. The interview responses are presented only where additional information was obtained.

College Program

In making the sample selection for survey purposes, first an effort was made to include schools at which there was an individual with whom either the Director of Education, the Director of Examinations or this investigator is acquainted. The purpose of this selection was to evoke a greater response. Also, a conscientious effort was made to include the majority of AACSB Schools. Seventy-one of the 127 AACSB Schools were included. Third, the sample was limited to four-year non-technical institutions which accounting for over 80 percent of the program's usage. These biases were built into the sample selection in order to obtain a more useful profile of the current thinking concerning the College Accounting Testing Program.

Users. Of the fifty questionnaires mailed to 1966-67 participants, 40 replies were received, all of which were usable in whole or in part. These replies constituted 80 percent of the questionnaires mailed to users of the College Accounting Testing Program.

It was recognized that a respondent's reaction to the total College Program would be in light of his own participation. Table 16 indicates that the type of participation by the respondents was in line with that of all users (see Table 5), except for the Level II Achievement Test. It is not felt, however, that this exception will discolor the evaluation of the questionnaires. As only two responding schools used the Strong Vocational Interest Blank, it is omitted from further questionnaire analysis.

It is noted that the respondents have maintained their participation in the program for a number of years--the majority for eight or more years. They are recent entrants into the program. If this sample can be taken as any indication, the program is not effectively attracting any new schools.

TABLE 16
PARTICIPATION IN COLLEGE PROGRAM BY USERS
ANSWERING QUESTIONNAIRE

<u>Number of Years Test Used Prior to 1966-67</u>	<u>Level I Achievement Test</u>	<u>Level II Achievement Test</u>	<u>Orientation Test</u>	<u>Strong Vocational Interest Blank</u>
0	3	2	2	1
1	1	1	2	0
2-3	3	4	0	0
4-5	2	2	1	0
6-7	0	1	0	0
8 or more	<u>20</u>	<u>22</u>	<u>12</u>	<u>1</u>
Total users in 1966-67	<u>29</u>	<u>32</u>	<u>17</u>	<u>2</u>

Note: Two respondents had used the Orientation Test in years prior to 1966-67 but had discontinued it.

The next section of the questionnaire attempted to discover how the tests are used by the user group. Without presenting the detail statistics here, it may be observed that the Level I Achievement Test was universally administered as it is designed to be--to students in their first or second year of accounting study. The Level II Achievement Test is given almost entirely to seniors, as it is so designed. The Orientation Test is administered at various stages of students' studies with a slight preference for "prior to first year of accounting study." Most schools administer the tests on a required basis rather than on a voluntary basis.

In order to determine some of the reasons for the schools participating in the College Accounting Testing Program, the question was asked "How were the test results used?" The respondents were asked to number their responses in order of importance. The responses are tabulated in Table 17. The basic newspaper football rating system, with modification, was used for

TABLE 17
 HOW TEST RESULTS ARE USED IN THE COLLEGE PROGRAM BY
 CURRENT PARTICIPANTS

	<u>Level I Achievement Test</u>	<u>Level II Achievement Test</u>	<u>Orientation Test</u>
Comparing achievement of school's students with those in other colleges	257	331	66
Encouraging and/or discouraging students to major in accounting	219	21	115
Student job placement purposes	116	214	63
Course content evaluation and/or development	105	110	0
For diagnostic purposes for students entering their first advanced accounting course	97	11	69
Determining students' grades	78	43	0
Scholarship or awards contests	29	42	31
Evaluating experimental teaching techniques	44	12	0
Evaluating individual teaching performance	39	19	0
Research purposes	0	31	0
Awarding credit to transfer students for prior accounting study	11	0	0

tabulation purposes. Twelve points were awarded to a first place vote-- the number one use of the test; 11 points for the second most important use; 10 points for third, etc.

Clearly, the prime reason for participating in the program is to find out how the participant's school rates against other schools. The Level I Achievement Tests is highly used for "encouraging and/or discouraging students to major in accounting," and the third most important use of the Level I tests is for "course content evaluation and/or development." Other purposes include "student job placement purposes" and "for diagnostic purposes for students entering their first accounting course." The Level II test is heavily used for student job placement purposes and for course development.

When asked about the adequacy of the tests' content, the responses were as given in Table 18. As indicated, there is general satisfaction concerning the content of the tests. Three respondents questioned the emphasis on "bookkeeping" and "bank reconciliations" of the Level I Achievement Test. These remarks appear directed toward the older Form D test as the new Form E omits bank reconciliations.

TABLE 18
COLLEGE PROGRAM TEST CONTENT EVALUATION

	Level I Achievement Test	Level II Achievement Test	Orientation Test
Excellent	6	4	4
Good	16	22	10
Barely adequate	3	5	--
Poor	--	--	--
Other comment or no answer	<u>4</u>	<u>1</u>	<u>3</u>
Total	<u>29</u>	<u>32</u>	<u>17</u>

It has been stated that the principal use of the Orientation Test in the College Program is to determine if a student's score on one of the accounting achievement tests is higher or lower than it should be if one considers the student's aptitude for accounting. With this use in mind, a question was asked to determine if indeed a comparison is made between student scores on the Level I Achievement Tests and the Orientation Tests. Of the ten respondents who indicated that they gave both tests to the same students, six said they did indeed compare the two scores for individual students. Four did not do so.

In respect to test offerings, the overwhelming number of respondents indicated that all tests in the program should be retained. Only three respondents indicated that the Level I Achievement Test should be eliminated; one said the Level II Achievement Test should be dropped; and two voted for the elimination of the Orientation Test. Nineteen respondents felt that all tests should be retained. Twelve of the 40 respondents returning questionnaires did not answer this question.

Also, 28 respondents indicated that no additional tests would be useful to them. Eight did suggest a different test than presently offered. However, no two of the suggestions were the same. Four had no opinion.

The survey also contained a question concerning methods of awarding transfer credit. Generally, most schools grant transfer credit for all prior work in accounting with a "C" or above.

However, a number of schools indicated they would not accept credit for courses beyond the elementary level for junior college transfer students. Proficiency examinations are little used for awarding transfer credit.

The respondents, almost without exception, indicated that they first became acquainted with the program through the AICPA's direct mailing announcement. With only two exceptions, the respondents rated the administration of the testing program by the Project Office as "Excellent" (31) or "Good" (7).

The price of the tests was thought to be reasonable by 35 respondents. Only three of the 39 respondents to this question (one did not answer) indicated that the price was too high. One felt the price was unusually low. Ten respondents charge the students for the tests while 27 use departmental operating funds. Three schools used funds obtained from various other sources.

With only three exceptions, the users indicated they plan to use the tests on the same basis some time during the 1967-69 academic years as they did in 1966-67. One school indicated it was dropping out of the program because of a lack of funds.

As was indicated at the beginning of this part of the questionnaire analysis, all participating schools do not use all tests in the program. Their reasons for not using a particular test are tabulated at the conclusion of the College Program questionnaire analysis.

Past Users. The primary purpose for circularizing the past users of the program was to try to determine why this group became past users, i.e., why did they drop the program. In addition to this information, additional evidence was sought concerning their use of the test results when they did participate. Other selected questions which were asked of the user group were also asked of the past users.

The survey of the past users produced 31 replies, with 21 of these being usable. From a mailing of 50 questionnaires, the main reason given by the ten respondents for not completing a usable questionnaire was that the person who was responsible for the program at their school was no longer on the faculty. Parenthetically, this may be the reason why these schools dropped the program, but the question remains as to why the other faculty members do not use the test.

The past participants had not used the tests for as many years as the user group. But they had used the different tests in indential proportions as did the users, and they administered the tests at about the same stage of a student's studies as did the users. Table 19 indicates how the past users used the test results. The same system is used for ranking the reasons as was used for the user group, i.e., 12 points for the most important objective, 11 points for second, etc. It will be noted that the reasons for using the tests are not very different from those of the current user group presented in Table 17.

TABLE 19
HOW TEST RESULTS WERE USED IN THE COLLEGE PROGRAM BY
PAST PARTICIPANTS

	Level I Achievement <u>Test</u>	Level II Achievement <u>Test</u>	Orientation <u>Test</u>
Comparing achievement of your students with those in other colleges	151	174	36
Course content evaluation and/or development	55	98	0
Encouraging and/or discouraging students to major in accounting	66	51	12
Student job placement purposes	31	97	11
Evaluating individual teaching performance	31	20	0
For diagnostic purposes for students entering their first accounting course	42	11	0

Note: Only items with more than two responses were included in the above tabulation.

There was general satisfaction among the past participants concerning the content of the tests. Their evaluations of test content are tabulated in Table 20.

TABLE 20
EVALUATION OF TEST CONTENT BY PAST USERS OF
THE COLLEGE PROGRAM

	Level I Achievement <u>Test</u>	Level II Achievement <u>Test</u>	Orientation <u>Test</u>
Excellent	2	2	1
Good	9	12	4
Barely adequate	1	1	0
Poor	1	1	0
No answer	<u>2</u>	<u>1</u>	<u>2</u>
Total past users	<u>15</u>	<u>17</u>	<u>7</u>

Not a single respondent indicated that his school was using any other test as a substitute for those in the Institute's program. There were two votes for eliminating the Level I Achievement Test, four for eliminating the Orientation Test, and four respondents also indicated the Strong Vocational Interest Blank should be dropped. Eight of the 21 questionnaire respondents indicated that all tests should be retained. There were six "no answers" to this question. Only one respondent indicated that any tests should be added.

As in the case of the user group, non-users award transfer credit to students who have earned a minimum grade at the school from which he transfers. Use of proficiency examinations is practically nil.

The majority of the respondents learned of the College Accounting Testing Program through the direct mailing announcements of the Project Office.

Only one respondent of the 21 indicated that the price of the tests was too high; the remainder felt that the price was reasonable. Approximately one-third of the institutions in the past user group indicated that they charged students for the tests. The remainder paid for the tests out of their operating budgets or from funds obtained from other sources.

The past users indicated they were well satisfied with the services rendered by the Testing Project Office.

When queried about their plans for using the tests in the next two years, six respondents indicated that they plan to use the Level I Achievement Tests. Seven indicated they plan to administer the Level II Achievement Test. However, 12 of the 21 respondents (about 60 percent) indicated they did not plan to participate at all in the next two years. Their reasons for not participating are given at the conclusion of the next section of this report.

Non-users. The primary purpose of the survey of the institutions which have never participated in the College Accounting Testing Program was to ascertain why they had not participated. Of 50 questionnaires mailed, 24 replies were received. Of the 24 replies, 18 constituted usable responses (36 percent of the questionnaires mailed).

The first section of the questionnaire was designed to determine if the respondents were familiar with the program, and if so, how did they learn of the tests. Only four respondents indicated a total unfamiliarity with the program. Those who were familiar with the program had learned of the tests through the Project Office's direct mailing or through the listing in the AICPA's list of publications brochure. The respondents have not used any substitute tests for the Institute's prepared Achievement Tests or Orientation Tests. They further indicated that the addition of any tests to the program would not be useful to their schools. In addition, they indicated that the AICPA testing program may be useful to them in the same ways as the current users utilize the program.

This third group of schools indicated that they do not use proficiency examinations in any way in awarding credit to transfer students.

With two exceptions, the non-user group plan to remain non-users of the College Accounting Testing Program for the next two years. The two exceptions plan to use the entire battery in the near future. The price of the tests was generally thought to be reasonable by non-users.

Why tests are not used. With this background, it is now appropriate to examine the reasons as to why the tests are not used. The users do not participate in all phases, the past users have dropped out, and the non-users have never joined in the program. In order to determine why, without prejudicing the responses, this section of the questionnaire was designed to be open-end. These responses, including general comments about the program, are summarized in the next four tables. Appendix B contains all survey comments. For each test, the responses are divided into the three survey groups. The users' responses are their reasons for not planning to use the tests in the next two years. For the past user and non-user groups, the reasons given are both for not using the tests in the past and for not planning to do so in the future.

TABLE 21
REASONS GIVEN FOR NOT USING THE
LEVEL I ACHIEVEMENT TEST IN THE
COLLEGE PROGRAM

	<u>Users</u>	<u>Past Users</u>	<u>Non-Users</u>	<u>Total</u>
Difficulty in scheduling test	1	3	2	6
Financing the test	2	1	3	6
Inadequate accounting program	-	1	2	3
Inertia; lack of knowledge; no reason	-	1	2	3
Composition of elementary class makes test inappropriate	2	-	1	3
See no specific need	1	-	2	3
Doubt value of test	2	-	-	2
Does not parallel course structure	2	-	-	2
Out of date content	-	2	-	2
Change in administration	-	2	-	2
Lack of participation by AACSB Schools	1	-	-	1
Other reasons	1	2	-	3

TABLE 22
REASONS GIVEN FOR NOT USING THE LEVEL II
ACHIEVEMENT TEST IN THE COLLEGE PROGRAM

	<u>Users</u>	<u>Past Users</u>	<u>Non-Users</u>	<u>Total</u>
Difficulty in scheduling test for large numbers	1	4	3	8
Not desired; not aware of need; not relevant	1	3	3	7
Financing the test	1	-	3	4
Lack of interest	1	1	-	2
Unfamiliar with test; no reason	1	-	2	3
Inadequate accounting program	1	-	1	2
Small number of schools using program	1	-	-	1
Other reasons	1	2	-	3

TABLE 23
REASONS GIVEN FOR NOT USING THE ORIENTATION TEST
IN THE COLLEGE PROGRAM

	<u>Users</u>	<u>Past Users</u>	<u>Non-Users</u>	<u>Total</u>
See no need; not desired; lack of interest	6	2	3	11
Not a good measuring device	3	1	1	5
Financing the test	3	-	2	5
This or a similar test is available elsewhere on campus	3	-	1	4
Unfamiliar with test	1	-	1	2
Difficulties in scheduling test	1	-	1	2
Students are over tested	-	1	-	1
Other reasons	-	1	1	2

TABLE 24
 REASONS GIVEN FOR NOT USING THE STRONG
 VOCATIONAL INTEREST BLANK IN THE COLLEGE PROGRAM

	<u>Users</u>	<u>Past Users</u>	<u>Non-Users</u>	<u>Total</u>
This or a similar test is available elsewhere on campus	9	1	4	14
Lack of interest; see no need	6	-	-	6
Financing the test	2	-	-	2
Test not desired	2	-	-	2
No experience	2	-	-	2
Other reasons	-	2	1	3

In summarizing the total responses to the program, a number of observations are clear. First, the program has many strong supporters. Numerous schools find the program valuable for a variety of purposes. On the other hand, few schools use the full battery of tests in the College Program. And of course many schools do not participate at all.

Many of the non-participating schools have never seriously considered the test. Many gave no reasons for not participating; they had not thought about it, although they were aware of the program. Similarly, many of the respondents indicated that they were not aware of any compelling need for or benefit from participating in the program. This is evidenced in part by the replies which indicated the difficulty of scheduling the test for multiple class sections. The difficulty of scheduling a two-hour examination period for seniors to take the Level II Achievement Tests was the

primary reason given for not using this particular test. Indeed, the larger the school, the greater the problem of administering the tests.

Financing the testing program is another reason for its non-use by non-participants as well as for the failure to use the full battery of tests by the program participants. As noted earlier, the schools feel the price of the tests to be reasonable, but when hundreds of students are involved, the total cost becomes material. It seems that the users allocate their available resources to the Level I Achievement Tests; remaining resources are divided between the Level II Achievement Test and the Orientation Test. However, some respondents indicated that they questioned the validity of the Orientation Test.

The number one justification for not using the Strong Vocational Interest Blank is that it or a similar test is available elsewhere on campus. Some schools require the Strong as a part of freshman orientation. Others give it on a voluntary basis. However, few of these services have the CPA profile which is available only through the AICPA Testing Project Office. At any rate, the schools generally make a selection from the test battery. The Strong is seldom chosen for administration by Accounting Departments.

In reviewing the comments of the respondents, the lack of criticism of the test content or validity was noticeable. Apparently, there are few complaints about the tests themselves. The most frequent comment along these lines, however, was the Achievement Test are not kept current enough.

Professional Program

In the mail survey concerning the Professional Accounting Testing Program, 150 questionnaires were sent to CPA firms -- 50 to firms which had ordered the tests in 1966 or early 1967 (the so-called user group);¹⁵ 50 to firms who had ordered the tests at sometime prior to 1966 (the past user group); and 50 to firms which had never ordered any tests in the Professional Accounting Testing Program (the non-user group).

As in the College Program, in making the sample selection for the Professional Program an attempt was made to include firms with which the Director of Examinations or an Institute staff member is acquainted. In addition to the mail survey, six firms were interviewed (one a national firm), and informal discussions were held with two additional national firms¹⁶ which are substantial users of the program. To avoid duplication, the interview results are presented only where the information gained adds to the mail survey results.

¹⁵During this period, these firms had placed orders for the tests as follows: Orientation Test, 648; Level II Achievement Test, 501; Strong Vocational Interest Blank, 310; and Level I Achievement Test, 138.

¹⁶One of these two firms used approximately 800 of the Orientation and Level II Achievement Tests. The other firm used approximately 600 Level II Achievement Tests in 1966.

Users. The replies from the user group totaled a surprising 70 percent (35) of the questionnaires mailed. However, 17 respondents indicated that while they had ordered the tests, they had not yet used the examinations. Many indicated they intended to use the tests during the Fall, 1967 and Spring, 1968. The following analysis is based upon the 18 (34 percent) of usable replies.

The questionnaire respondents used the tests in the same proportion as the individual tests are used in the entire program by CPA and industrial firms. (Compare Table 25 below with Table 13).

TABLE 25
USE OF TESTS IN PROFESSIONAL PROGRAM BY
1966 PROGRAM PARTICIPANTS COMPLETING QUESTIONNAIRE

<u>Number of Years Test Used Prior to 1966</u>	<u>Level I Achievement Test</u>	<u>Level II Achievement Test</u>	<u>Orientation Test</u>	<u>Strong Vocational Interest Blank</u>
0	3	5	5	5
1	0	1	1	0
2-3	1	3	3	1
4-5	0	2	3	2
6-7	0	0	0	0
8 or more	3	4	3	2
No answer	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>
Total	<u><u>7</u></u>	<u><u>15</u></u>	<u><u>16</u></u>	<u><u>10</u></u>

It appears that the 1966 users of the professional program are likely to be recent entrants into the program although some firms have been using a particular test for eight or more years. But there is definitely not the staying power of the Professional Program as exists in the College Program.

It is apparent that 1966 participants used the tests primarily to evaluate prospective employees, although there was some use of the tests for appraising present employees. Table 26 presents the data provided by the respondents. Three of the four firms interviewed which participated in the program in 1966 also indicated that they administered the

TABLE 26
POSITIONS OF PERSONS TAKING TESTS IN
PROFESSIONAL PROGRAM

	Level I Achievement Test	Level II Achievement Test	Orientation Test	Strong Vocational Interest Blank
Prospective employees	4	14	15	7
Employees of firm:				
Office employees	-	-	1	-
Junior accountants		3	4	3
Semi-senior accountants	-	2	1	1
No answer	<u>3</u>	<u> </u>	<u>1</u>	<u>-</u>
Total	<u>7</u>	<u>19*</u>	<u>22*</u>	<u>11*</u>

*Some firms administered tests to more than one classification.

tests to prospective employees. However, each firm indicated that this testing was extremely limited, and they would not test prospective employees in 1967. Their reason was that (1) too much time is consumed in giving the tests and (2) the market situation for prospective employees is too tight to require a desirable applicant to take any type of test. The applicant can interview many firms which do not require this type of evaluation.

The fourth firm interviewed was a national firm. This firm indicated that it used the tests for all recently employed junior accountants. It did not administer any tests to prospective employees.

Discussions with two other national firms which are regular participants in the program revealed that they also administer the tests to recently employed junior accountants. All three national firms also indicated that the market for prospective employees was too tight to subject applicants to any type of testing at this time.

The firms responding to the mail survey, which administered the test to prospective applicants, indicated that the Achievement Test and Orientation Test were generally required while the Strong Vocational Interest Blank was generally optional. Also, a minimum score was not normally required.

Table 27 reveals how the test results were used by the 1966 participating respondents. While for the most part, the test results are appropriately used, there are some minor exceptions. Of particular interest is the use of the tests for evaluation of prior work experience. Also, the tests administered to the firms' employees are used mainly in evaluating the quality of employment results. Two national firms interviewed indicated that this is their prime use of the tests. When asked via questionnaire how helpful was each test when last used, the firms replied as noted in Table 28. The firms found the tests helpful for their purposes. Of particular benefit was the Level II Achievement Test.

Likewise, the firms were generally pleased with the test content. All respondents indicated the test content to be "excellent" or "good" with one exception. This exception was a "poor" rating for the Strong Vocational Interest Blank. A copy of this firm's comments concerning the Strong Vocational Interest Blank is included in Appendix B.

TABLE 27
USE OF TEST RESULTS BY CPA FIRMS IN 1966

<u>Prospective employees</u>	<u>Level I Achievement Test</u>	<u>Level II Achievement Test</u>	<u>Orientation Test</u>	<u>Strong Vocational Interest Blank</u>
For measuring academic achievement of applicants from schools with different academic standards	3	12	8	1
For evaluating motivation and interest of applicants	1	3	9	7
For evaluating applicants with a non-accounting major	3	6	7	4
For evaluating applicants' prior work experience	3	7	3	1
<u>Current employees</u>				
For evaluating the quality of employment results	-	3	4	3
For evaluating personnel for advancement	-	2	1	-
For employee counseling	-	3	2	2

TABLE 28
UTILITY OF TESTS TO 1966
PARTICIPATING CPAs

	Level I Achievement <u>Test</u>	Level II Achievement <u>Test</u>	Orientation <u>Test</u>	Strong Vocational <u>Interest Blank</u>
No assistance	-	-	-	-
Limited assistance	-	-	-	2
Generally helpful	3	5	9	2
Extremely helpful	1	7	3	3
No answer	<u>3</u>	<u>3</u>	<u>4</u>	<u>3</u>
Total	<u>7</u>	<u>15</u>	<u>16</u>	<u>10</u>

Eleven of the 18 firms recommended that all tests in the Professional Program be retained. Two recommended the elimination of the Level I Achievement Test, one the elimination of the Strong Blank, and four did not answer this question. Similarly, the majority of firms made no suggestions for the addition of tests to the program.

The 1966 users of the program learned of the tests, for the most part, through direct mailing announcements. Only one respondent of the 18 felt that the price of the tests was "too high". All others thought the price to be "reasonable." Eleven of the respondents indicated that the services rendered by the AICPA Testing Project Office were "excellent;" six "good;" and only one "barely adequate."

As a whole, the Professional Program users are satisfied with the tests. This conclusion is not only evident from the above comments, but is substantiated by the fact that the 1966 users almost without exception plan to continue their participation in the program in 1968-69 on the same basis as in 1966. Each respondent did not and does not

intend to use the full test battery. The reasons for not using a particular test are discussed at the conclusion of the analysis of the mail questionnaires.

Past users. Of the 50 questionnaires distributed to past participants in the Professional Program, 19 replies were received; 13 (26 percent of mailing) were usable for tabulation purposes.

The majority of past users of the program indicated that they had participated for "2-3 years" before dropping out. They had used the tests for the most part in evaluating applicants. There was only limited administration to employees. The past participants' use of the test results is similar to that of 1966 participants. With one exception, the respondents indicated that the tests were "generally helpful" or "extremely helpful." The one exception rated the use of the Level I and Level II Achievements as being of "limited assistance." All past users rated the content of the tests as being "excellent" or "good" (in almost identical proportions). The past users were not using any substitute tests for the Institute tests and unanimously agree that the addition of any tests to the program would not be helpful to their firms. One respondent indicated that all tests should be eliminated, two others indicated that the Level I Achievement Test might be dropped, and one recommended the elimination of the Strong Vocational Interest Blank. Four firms recommended the retention of all tests and five expressed no opinion on this issue.

The CPA firms, which had used the tests in the past, first became aware of the program through the Institute's direct mailing announcements. Without exception, the firms felt that the services rendered by the AICPA Testing Project Office were "excellent" or "good." Twelve of the firms consider the price of the test to be "reasonable" while one firm indicated the price to be "unusually low."

Of particular interest are the plans of the past participants for using the tests in 1968-69. Two respondents indicated plans for using the Level I Achievement Test; six the Level II Achievement Test; seven the Orientation Test; and one the Strong Blank. Only two of the thirteen firms indicated they had no plans for participating in the program in the near future. The reason for not planning to use the various tests offered in the Professional Program are summarized at the conclusion of the following section.

Non-users. Fifty questionnaires were mailed to CPA firms which have never participated in the Professional Accounting Testing Program. Twenty-six replies were received with 24 (48 percent of mailing) of these being usable for tabulation purposes. It is interesting to note that 10 (over 40 percent) of the 24 respondents were not acquainted with any of the tests in the program prior to the mail questionnaire. Those who were familiar with the program had learned of it in a variety of ways, the most frequently cited single medium being direct mailing announcements.

Without exception the 24 respondents indicated they were not using any substitute tests. However, as noted in Table 29 they did indicate that the Institute's testing program may be useful to them in a variety of ways. It is interesting to note the desire for testing the firm's employees, as evidenced by the last four items in Table 29. It is suspected that a number of other firm needs could have been listed and probably would have been checked by the respondents.

TABLE 29
HOW A TESTING PROGRAM MAY BE USEFUL
TO NON-USERS (AS INDICATED BY 21 CPA FIRMS)

<u>Possible Uses</u>	<u>No. of Responses</u>
For evaluating academic achievement of applicants from schools with different academic standards	10
For evaluating prospective employees with a non-accounting major	7
For evaluating the prior work experience of prospective employees	15
For evaluating employees for advancement	11
For evaluating the effectiveness of staff training programs	8
For evaluating the quality of employment results	7
For employee counseling	10

When asked whether they would consider the candidates' score on the various tests in discriminating between two otherwise equal individuals for employment or promotion, the 24 non-users replied as noted in Table 30. There seems to be little question in the minds of the non-users that the tests could be useful to them.

TABLE 30
 POTENTIAL USE OF TEST RESULTS FOR EMPLOYEE
 EMPLOYMENT AND PROMOTION BY
 NON- PARTICIPANTS

<u>Test</u>	<u>For Employment</u>		<u>For Promotion</u>	
	<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>No</u>
Level I Achievement Test	6	3	3	5
Level II Achievement Test	10	1	8	2
Orientation Test	9	1	6	2
Strong Vocational Interest Blank	7	2	4	3
Not familiar enough with tests to answer	10		10	

However, 16 of the 24 respondents indicated that their firm does not inquire of prospective employees whether the applicants have taken any of the tests in college.

All respondents who answered the question concerning the cost of the tests indicated that the price is "reasonable." The non-users indicated that no tests should be added to the program.

Why tests are not used. Since in general the non-users indicated that the Professional Accounting Testing Program may be useful to them, do they plan to use the tests in 1968-69? Twelve (50 percent of respondents) firms indicated their firm did plan to participate in the program in 1968-69 while 12 indicated they had no such plans. It appears that a large part, if not all, of this increased interest in the program was generated by the mail survey. It will be recalled that 40 percent of the respondents were not acquainted with the program prior to the receipt of the questionnaire. The effect of additional promotion seems clear.

With this background, it now is appropriate to examine the central issue--why do CPA firms not use various tests in the program. This part of the questionnaire was open-end in an attempt to elicit unbiased responses. All responses are presented in the Appendix B.

It is apparent that few of the firms have given any real thought as to why they do not participate in the program. Participants, for the most part, did not give a reason for not using the other tests in the battery.

The most revealing, and perhaps useful, data are provided by the non-user group. In Table 31, the reasons for their non-participation are summarized. While these data are inconclusive to some degree, it is apparent that the reason for a number of local firms not participating is their lack of familiarity with the program. Many of the non-users plan to be users as a result of the survey. This investigation,

TABLE 31
REASONS WHY CPA FIRMS DO NOT PARTICIPATE IN
PROFESSIONAL TESTING PROGRAM

<u>Reasons Given</u>	<u>Number of Times Item Mentioned</u>
"Not familiar with program"	6
"Have own methods of evaluation"	3
"Low turnover"	2
"Tests inappropriate for needs"	2
"Do not have an examiner"	2
"Have no reason"	2
"Not prepared to administer tests"	1
"Poor results"	1

particularly the interviews, brought out another, perhaps more significant, point as to the programs' non-use. Many employees simply feel that the market for prospective employees is so limited that they do not wish to frighten any applicant away with a test.

To sum up, the following list seems to reflect the basic reasons for CPA firms not participating in the Professional Accounting Testing Program and/or using the tests as an aid in employee selection.

1. The demand for accounting college graduates far exceeds the supply; therefore, each firm feels that it cannot impose a test upon applicants.
2. Unfamiliarity of firms with tests, particularly the regional and local firms.
3. Firms feel that the tests do not make a positive contribution to their recruitment efforts (unaware of need or potential benefit).
4. Some firms question the ability of the tests to serve as valid predictors of professional success.

The responses to the individual tests should also be considered.

Most CPA firms do not employ individuals for which the Level I Achievement is applicable. Therefore there is little need for this test by CPA firms.

There is some concern over the length of the Level II Achievement Test.

A one-hour examination is preferred by many. No strong conviction about the Orientation Test was uncovered. Some firms question the usefulness of the Strong Vocational Interest Blank.

And of course, most participating firms feel that to give the entire test battery--or even more than one or two tests--is too time consuming. As a result, they most often select the Level II Achievement Test and perhaps the Orientation Test.

On the other hand, as the questionnaire quotations in Appendix B indicate, the Professional Program has many advocates. The Level II Achievement Tests and the Orientation test particularly make a valuable contribution to the recruitment efforts of a number of firms.

V. SUMMARY AND FURTHER CONSIDERATIONS

This final part of the investigation is devoted to a brief synthesis of the previous sections of this report and the posing of issues which seem appropriate for the Subcommittee to consider and resolve. All findings of this report are not repeated here--only the most significant items which seem to bear most heavily and directly upon the suggested issues.

The Personnel Testing Program has been in operation since 1946. An investment of over \$100,000 was required to launch the program with subsidies required almost annually until 1965. Presently, the program is on a self-sustaining basis except for the preparation of the Achievement and Orientation Tests. The Institute's staff is responsible for this phase of the program. While the program has grown over the years, it has not kept pace with the growth of the profession.

The High School Program

The High School Orientation Test seems to have been added to the program in 1953 as an after-thought. There was no clear-cut objective in mind when this test was issued. It has been justified as a recruiting device. However, there seems to be a number of compelling reasons why the continuation of this program should be seriously questioned.

1. The test is little used (7,400 by the High Schools in 1966), particularly when the high school population is considered. This is true despite the fact that in 1966-67 approximately 13,500 announcements of the program were distributed to high school teachers and counselors through the Accounting Careers Council.

2. The test seems to have appeal to high school bookkeeping teachers. The caliber of students needed by the accounting profession for the future is not likely to come by the high school bookkeeping route. Indeed, effective recruitment must be accomplished outside of the high school commercial courses.
3. Numerous research studies have pointed up the ineffectiveness of high school counselors in influencing or guiding a student in determining his career choice.
4. There are a variety of other tests available on the high school level which may be more appropriate for measuring potential in accounting. Some of these include the Differential Aptitude Tests (provides profiles for verbal reasoning and numerical ability); Otis-Lennon Mental Ability Tests; the Stanford Achievement Test battery which offers, among others, an achievement test for mathematics and one for business and economics; California Achievement Test (emphasis on arithmetic and bookkeeping; General Scholarship Test for High School Seniors (Ohio Scholarship Tests); The Iowa Tests of Educational Development: Test 4, Ability To Do Quantitative Thinking; College Qualifications Tests (verbal, numerical, and information--published by The Psychological Corporation); and of course there is a host of bookkeeping achievement tests available. In short, there is a plethora of tests available for the

high school student. Many of these, such as the mathematics tests, may be more effective recruiters, in terms of quality, for the accounting profession.

The questions then are: What are the objectives of the High School Program? Is it accomplishing these objectives? Should the program be discontinued? If not, what can be done to increase its effectiveness?

The College Program

The current objectives of the College Program may be summarized as being: to assist in recruitment, including guidance and counseling, of students; to assist in the placement of college accounting graduates; and to assist colleges and universities in comparing the achievement of their students with those in other schools. In 1966-67 over 30,000 students participated in the testing program with over one-half of these taking the Level I Achievement Test. To varying degrees, the test results are used in a manner compatible with the objectives of the program. However, it can not be denied that many schools are not aware of any benefit which may be derived from participating in the program.

The primary reason for the larger institutions not participating (although 38 percent of the AACSB schools did participate in 1966-67) is the difficulty of scheduling a common examination for several hundred students. Many schools also indicate that the funding of the program is a difficulty. For these reasons, the schools that do choose to participate do so on a selective basis; that is, they use only one or two of the tests in the complete battery.

It seems appropriate at this stage of the development of the College Accounting Testing Program to consider the following questions, among others:

1. What should be the objectives of the program? Are there new objectives which might be served by the Program?
2. What type of tests (achievement, aptitude, or intelligence) are appropriate to achieve the proposed objectives of the testing program?
3. Are all of the present tests useful in achieving the proposed objectives, considering present usage? Which, if any, should be eliminated? Should any tests be added?
4. If the Level II Achievement Test is to be continued, should consideration be given to offering a one-hour or 50-minute test?
5. What can be done to encourage wider participation in the program, especially among the larger schools? Should the program be promoted? If so, how?
6. What additional steps can be taken to increase the overall effectiveness of the program? For example, should the price differential between the college and professional programs be stressed to encourage greater college participation?
7. Should Council's resolution to explore the possibility of using the testing program in screening students for graduate school be absolved?

The Professional Program

The primary objective of the Professional Accounting Testing Program is to assist accountants in selecting new staff members. Additional objectives are to assist accounting firms in retention and promotion of employees.

In reviewing the usage of each examination it is readily apparent that CPA firms are not using the tests on a widespread basis. Interviews and discussions with CPA firms, including three national firms which are substantial users of the program, indicate that the primary reason for their lack of use of the program as a employee selection device is that the market for prospective employees is too tight to subject the applicant to testing. It is said that any applicant can find a job without being tested. However, these firms do use the program as a post-employment device to evaluate the quality of their personnel recruiting efforts over time.

However, the questionnaire responses of firms which used the tests in 1966 indicate that their primary use of the program is in the selection of employees. All indications are that this is the primary purpose for participating in the program by industrial firms, too.

Few firms which have participated in the program use the full battery of tests. The main reason is the time factor involved for the candidate. Therefore, firms select only one or two tests -- usually the Level II Achievement Test and possibly the Orientation Test.

Of no small consequence is the number of firms responding to the survey which indicated they were not familiar with the program. Furthermore, 50 percent of the non-users replying to the questionnaire indicate that they plan to participate in the program during 1968-69.

Therefore, unfamiliarity with the program seems to be a reason for many of the smaller firms not participating. They feel that the program does not have utility for their needs.

Turning to an assessment of the Professional Accounting Program, there are a number of questions which should be considered and for which concrete answers should be formulated. These include:

1. What should be the objectives of the program? Are the original objectives still valid? Are there new objectives which might be served by the program?
2. What type of tests (achievement, aptitude, or intelligence) are appropriate to achieve the proposed objectives of the testing program?
3. Are all of the present tests useful in achieving the proposed objectives, considering present usage? Which tests, if any, should be eliminated? Should any tests be added?
4. What can be done to encourage wider participation in the program by CPAs? Should the program be promoted? If so, how?
5. Should the program be promoted for use by industrial firms? By governmental agencies?

General Considerations

Turning to the total testing program, its effectiveness is determined in a large measure by the content of the tests. Not only must the tests be statistically reliable and valid, they must also be current. In recent years, the program has suffered from the deficiency of being outdated. Therefore, the following administrative issues should be resolved without further delay.

1. Who should be charged with the preparation and revision of the tests? An Institute staff member? An outside consultant? How is test preparation and revision to be financed?
2. What should be the basic resource for test content? Final examinations of colleges? Textbooks? Problems in accounting practice?
3. Who should have the final authority for approving a test for its content?
4. How often should the tests be revised?

Resolution of the questions posed here will contribute greatly to improving the operational effectiveness of the Personnel Testing Program.

A P P E N D I X

EDUCATION & PROFESSIONAL TRAINING

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AICPA Tests as Predictors Of Professional Success

A new study has confirmed other more limited surveys made in the past in showing that the American Institute's Testing Program can be used as an indicator of potential for professional success. The study, researched by Dr. ROBERT D. NORTH, AICPA Testing Project Office, consisted mainly of comparing ratings in firms with percentile ranks in tests. Most of the employees covered by the survey were junior accountants, but some were semi-seniors, seniors, managers or partners. For information about obtaining the tests, write to the AICPA Testing Project Office, 304 E. 45th St., New York, N.Y. 10017.

THE study was begun in 1964 by Dr. Edward S. Lynn, CPA, then the Insti-

tute's director of education, and the Institute's subcommittee on personnel testing, chaired by David W. Thompson, CPA, partner in charge of personnel of Peat, Marwick, Mitchell & Co. Professor Charles L. Savage, CPA, chairman of the business division of St. Francis College, New York City, assisted in collecting data.

Data were obtained for more than 500 employed accountants in four national firms, and for more than 1,000 accountants in 224 smaller firms, representing 41 states and the District of Columbia. Of the 276 firms invited, 81 per cent participated.

The following tables show relationships between percentile ranks on the tests (orientation and achievement, unless otherwise noted) and ratings by the four national firms that were studied.

National Firm A

Percentile Ranks on the Tests	Per Cent of Total Group	Ratings (Per Cent)		
		Below Average	Average	Above Average
75-100 on both	14	—	13	87
75-100 on one, lower on other	33	3	25	72
50-74 on both	12	8	23	69
50-74 on one, lower on other	20	14	41	45
1-49 on both	21	4	61	35
Total Group	100	5	34	61

National Firm B

Percentile Ranks on the Tests	Per Cent of Total Group	Ratings (Per Cent)			
		Below Average	Average	Above Average	Superior
75-100 on both	16	19	14	35	32
75-100 on one, lower on other	29	15	21	45	19
50-74 on both	9	15	25	45	15
50-74 on one, lower on other	23	35	32	29	4
1-49 on both	23	37	33	28	2
Total Group	100	25	26	36	13

National Firm C

Percentile Ranks on the Tests	Per Cent of Total Group	Ratings (Per Cent)		
		Below Average	Average	Above Average
75-100 on both	15	15	48	37
75-100 on one, lower on other	30	13	55	32
50-74 on both	10	6	65	29
50-74 on one, lower on other	26	28	54	18
1-49 on both	19	27	49	24
Total Group	100	19	54	27

National Firm D

Percentile Ranks* on Achievement Test	Per Cent of Total Group	Ratings (Per Cent)			
		Below Average	Average	Above Average	Superior
95-100	17	—	20	56	24
75-94	42	2	25	52	21
25-74	36	11	50	35	4
0-24	5	25	50	25	—
Total Group	100	6	35	45	14

*College senior norms

The Smaller Firms

Percentile Ranks on the Tests	Per Cent of Total Group	Ratings (Per Cent)		
		Below Average	Average	Above Average
75-100 on both	9	12	34	54
75-100 on one, lower on other	25	11	43	46
50-74 on both	8	24	46	30
50-74 on one, lower on other	20	26	49	25
25-49 on both	7	30	50	20
25-49 on one, lower on other	15	34	53	13
1-24 on both	16	58	35	7
Total Group	100	28	44	28

The preceding table shows the relationship between the test ranks (orientation and achievement of 677 junior accountants in the 224 smaller firms that were surveyed.

The orientation test is essentially a measure of intelligence slanted toward business. It tests both verbal

and quantitative ability, and a high score in one may be offset by a low score in the other. This is one illustration of the need for firms to analyze test scores in detail when evaluating the potentials of individuals. Thus, it is possible to make even more dependable use of the tests than the

overall scores in the tables indicate. Also, the achievement test is principally a test of technical ability. No one claims that both tests together evaluate all those personal attributes possessed by, say, a hypothetical average of successful CPAs.

However, the tables do show that a firm of CPAs can use test scores to minimize the chance of error in hiring new men. If good judgment is added to the test scores, this chance of error should be quite small indeed.

Validity of the AICPA Accounting Aptitude and Achievement Tests
as Predictors of Success in the Accounting Profession

by
Robert D. North

New evidence of the validities of the AICPA Accounting Orientation Test and Level II Accounting Achievement Test has recently become available through two national research studies. One of these deals with CPA examination success and the other concerns professional success of staff members in accounting firms. Summaries of the findings are reported here, and more detailed information about the results will be given in forthcoming issues of the Journal of Accountancy or in other publications of the American Institute of Certified Public Accountants.

Relation of the Test Scores to CPA Examination Success

A new Uniform Statistical Information Questionnaire was developed last year through the cooperation of the State Boards of Accountancy, the Association of CPA Examiners, and the AICPA. This questionnaire was filled out by 11,280 candidates in 43 states at the November, 1964, sitting. Among the data obtained from this questionnaire was information about whether or not the candidate has taken the AICPA Orientation or Achievement Test, or both. Some 783 candidates reported they had taken the Orientation Test and 1,510 indicated that they had taken the Level II Achievement Test as college seniors. Records of their scores were obtained from the AICPA Testing Project Office. While these candidates are not necessarily a representative sampling of the total group of candidates, the relation of their test scores to the CPA examination results, as shown in Table 1, may nevertheless be of interest.

Table 1

Relation of Test Scores to CPA Examination Success

Orientation Test Percentile	No. of Cand.	CPA Exam. Results		Level II Achievement Test Percentile	No. of Cand.	CPA Exam. Results	
		Per Cent Passed or Conditioned	Per Cent Given No Credit			Per Cent Passed or Conditioned	Per Cent Given No Credit
90-99	234	64	36	90-99	360	74	26
75-89	165	55	45	75-89	401	55	45
50-74	192	46	54	50-74	407	45	55
25-49	109	40	60	25-49	227	30	70
0-24	83	30	70	0-24	115	23	77
Total Group	783	51	49	Total Group	1,510	50	50

Information about the candidate's status on the CPA examinations was obtained from the State Boards of Accountancy. For this brief analysis, all candidates who passed one or more subjects at the November, 1964, sitting have been included in one classification, designated as "passed or conditioned." The other

classification consists of the candidates who did not receive "conditioned" credit for any subjects at the November, 1964, sitting.

In the total group of candidates who had taken the Orientation Test, 51 per cent were passed or conditioned. Among those who ranked at or above the 90th percentile on the college senior Orientation Test norms, however, 64 per cent were passed or conditioned. The percentage of successful candidates dropped to 30 for those who fell below the 25th percentile on the test norms. In other words the chances of a candidate's being partially or completely successful on the CPA examinations apparently are about six to four in his favor if he ranks in the top tenth of the Orientation Test norms, but about seven to three against him if he ranks in the lowest quarter of those norms.

The relation between the Level II Achievement Test percentiles and CPA examination success for the larger group of 1,510 candidates is still more substantial. Among the candidates who were in the top tenth of the Level II Achievement Test norms, 74 per cent were passed or conditioned, as compared with 50 per cent for the group as a whole that took the Achievement Test, and 23 per cent for those who ranked below the 25th percentile on this test. By inference from these data, the odds for partial or complete success on the CPA examination seems to be about three to one in favor of a candidate who ranks in the top tenth of the Achievement Test norms and about three to one against a candidate who is in the lowest quarter of these norms.

On both the Orientation and Achievement Test norms, the 80th percentile appears to be the approximate point corresponding to a 50-50 chance of partial or complete success on the CPA examination.

Among the candidates who took the Orientation Test, 39 passed all four subjects at their first sitting. Their median Orientation Test percentile was 92, as compared with a median of 67 for the 385 candidates who did not receive any conditioning credit and who had taken the Orientation Test. Achievement Test results were available for 84 candidates who passed all four subjects at their first sitting, and their median Achievement Test percentile was 91. For the 750 candidates who did not receive any conditioning credit and for whom Achievement Test data were available, the Achievement Test median was 59.

These findings indicate that about half of the candidates who rank in the top eight or nine per cent of the Orientation or Achievement Test norms are able to pass all four subjects at their first sitting.

Relation of the Test Scores to Professional Success in Accounting Firms

In the other study conducted during the past year, junior staff members of four of the national accounting firms and of 224 local and regional firms were rated for their over-all value. Since a full report of these results is scheduled for publication in an early issue of the Journal of Accountancy, only a part of the findings will be reported here.

One of the national firms had administered Form C of the Level II Achievement Test to the junior accountants who were on its staff in 1959. College senior norms, which are very similar to junior accountants norms, were used for evaluating the scores. Over-all value ratings were given in four categories--below-average, average, above-average, and superior. The ratings were as of 1964, or as of the last year of employment if the accountant had left the firm. The relation between the Achievement Test percentiles and the staff ratings is shown in Table 2.

Table 2

Ratings by Achievement Test Ranks in a National Firm

Percentile Ranks* on Achievement Test	Per Cent of Total Group	Ratings (Per Cent)			
		Below Average	Average	Above Average	Superior
95-100	17	--	20	56	24
75-94	42	2	25	52	21
25-74	36	11	50	35	4
0-24	5	25	50	25	--
Total Group	100	6	35	45	14

*College senior norms

In this firm's total group of more than one hundred accountants who were included in the study, only 14 per cent were rated superior. This top rating went to 24 per cent of the men who had Achievement Test percentiles in the range of 95-100, however, and to 21 per cent of those in the percentile range of 75-94. None of the men who ranked in the lowest quarter of the Achievement Test norms received superior ratings. Below-average ratings were given to 6 per cent of the total group, but to none of the men in the top 5 per cent of the Achievement Test norms, and to only 2 per cent of those in the percentile range of 75-94. In contrast, 25 per cent of the men who ranked in the lowest quarter of the Achievement Test norms received below-average ratings.

Test scores and staff ratings were obtained for 677 junior accountants in local and regional firms in 41 states and the District of Columbia. The relation of the Orientation and Level II, Form E, Achievement Test percentiles, in combination, to the staff ratings is shown in Table 3.

Table 3

Ratings by Test Ranks of 677 Junior Accountants in the Smaller Firms

Percentile Ranks on the Test	Per Cent of Total Group	Ratings (Per Cent)		
		Below Average	Average	Above Average
75-100 on both	9	12	34	54
75-100 on one, lower on other	25	11	43	46
50-74 on both	8	24	46	30
50-74 on one, lower on other	20	26	49	25
25-49	7	30	50	20
25-49 on one, lower on other	15	34	53	13
1-24 on both	16	58	35	7
Total Group	100	28	44	28

There is quite a marked contrast between the distribution of ratings of the men who ranked in the top quarter of the norms of both tests and of those who ranked in the lowest quarter of both norms. Of the top-quarter men, 54 per cent were rated above-average and only 12 per cent below-average. On the other hand, only 7 per cent of the men who ranked in the lowest quarter of the norms of both tests were rated above-average, while 58 per cent were rated below-average.

The results of these two studies indicate that the AICPA Orientation and Achievement Tests have substantial value as indicators of potential success on the CPA examination and in the profession of public accounting.

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APPENDIX B

QUESTIONNAIRE COMMENTS

College Accounting Testing Program

The following quotations are taken directly from the returned questionnaires without editing. All respondents did not answer this section of the questionnaire. An asterisk identifies comments of AACSB schools.

Level I Achievement Test

Why 1966-67 college program participants do not use test

- "No specific need."
- *"Decision made several years ago not to use this test. The faculty doubted its useful value; we had problems with administration and found the terminology out of date."
- *"Test doesn't parallel our course."
- *"We abandoned this a long time ago as we do not have jurisdiction over students during first two years; and we do not believe it serves our needs."
- *"(1) Lack of adequate participation of AACSB schools; (2) Cost; (3) Difficulty in scheduling and administering tests."
- *"Too few of the students completing Acc. 112 do not plan to major in accounting. Therefore, results not too meaningful."
- *"The staff feels that an objective test is inadequate to test an integrated understanding of methodology and the reasons therefore -- the theory."
- *"Never used it."
- "Test does not fit our sequence of courses (i.e., we have a one semester principles course followed by intermediate)."
- *"Over 750 students are enrolled in our principles course in the undergraduate program which makes the cost prohibitive."

Why past program participants do not use test

- "Test does not recognize new approach to teaching elementary accounting and new material which is now being taught. Students using a traditional text tend to do much better; out of date terminology."
- "Scheduling difficulties."
- "I feel that students take enough tests of this type already."
- *"Difficulty in grouping students at the stipulated levels."
- "Change in administration."
- "Change in administration and funds not in budget."
- "Inadequate accounting program."

- "Requires valuable class time; students not motivated to make necessary effort to perform well."
- "Too procedurally orientated."
- *"Enrollment in classes became so large and with so many sections, the organization for giving and reporting the examination became so much effort that it was dropped. Inertia. We're interested in beginning again."

Why non-participants do not use test

- "We do not offer a major in accounting."
- "Cost; accounting majors are mixed with non-majors in classes."
- "Do not know. Based on my observation as a new teacher it was due to ignorance concerning the tests and lack of desire."
- *"Reluctance on part of older members of staff; also difficulty in scheduling time when all students could take test at same time."
- *"We consider our examination program as adequate."
 - "Our curriculum is not set up to permit the examination at an early level. We only have three hours of introductory accounting."
- *"No provision for bearing the costs of the tests."
 - "No specific reason."
 - "Time schedule."

Level II Achievement Test

Why 1966-67 program participants do not use test

- "The college does not offer sufficient accounting courses to warrant scheduling this test; we have no major in accounting."
- *"Not desired."
- *"Finances."
- *"Have trouble getting a representative group together for a 2-hour period at night."
- *"No experience."
- *"Lack of interest on part of students and recruiters and small number of schools using test and concern about comparability."
- *"Not particularly appropriate; would be given only to a small group."

Why past program participants do not use test

- "Scheduling difficulties."

- "The test tended to discourage some students that I feel will be successful in industry."
- *"Difficulty in grouping students at the stipulated levels."
- "They were not mandatory, and few students exhibited interest."
- "Change in administration."
- "Schedule time not convenient at present."
- "Not aware of need."
- "Not relevant."
- *"Seniors scattered in so many different sections of courses that it was difficult to get them together for a two-hour exam. Work schedules of students added to difficulty of scheduling test."
- "Lack of incentive."
- "Faculty members responsible overlooked deadline for ordering tests."

Why non-participants do not use test

- "We do not offer a major in accounting."
- "Cost."
- "Ignorance and lack of desire."
- *"Too many students."
- *"We consider our examination program as adequate."
- "Unable to include the time in our schedule, students not interested in doing it at another time."
- *"No provision for bearing the costs of the tests."
- "No specific reason."
- "Time schedule."

Orientation Test

Why 1966-67 program participants do not use test

- "No experience."
- "Our experience shows that it is not a good barometer of one's aptitude for accounting."
- "We used it for many years but have discontinued using it. It takes one class period and can tend to discourage a student who otherwise would have a better attitude toward accounting."
- "Cost and budget."
- "We don't feel we have the need for it."
- *"Not desired."
- *"We see no need for this."
- "Lack of funds."
- *"We found that the varied backgrounds can distort the results somewhat. We have no allowances in the budget for this."
- *"University gives this."
- *"No compelling need, I guess."
- "Similar tests are given to entering freshman by university."
- *"Conversion to quarter system has not provided a one hour period for the test so far."

- "We do not have contact with beginning students soon enough."
- "Use guidance center and counseling service."
- *"Lack of student interest."
- *"Recommended for students who need help selecting a major."
- *"Of little value to us."

Why past program participants do not use test

- "I feel the students take enough tests of this type already."
- *"No apparent benefit from use."
- "Limited use of results."
- "Not aware of need."
- "Doesn't fit our program."

Why non-participants do not use test

- "Not acquainted with it."
- "Very similar to placement exams given entering freshmen. Would not be enough value to justify expense."
- *"We doubt that tests of this type indicate anything except the two extremes -- good and bad -- which are obvious with an examination process."
- "I am opposed to the use of these tests, basically."
- "Lack of faculty interest."
- *"No provision for bearing the costs of the tests."
- "No specific reason."
- "Time schedule."

Strong Vocational Interest Blank

Why 1966-67 program participants do not use test

- "No experience."
- "Lack of interest by faculty."
- "No specific need."
- "Used for all entering freshmen during Orientation Week in September of each school year."
- "Cost, interest and budget."
- "Students can take this in our Testing Services Bureau."
- *"Not desired."
- *"Most students strongly committed to business and accounting major."
- *"This is handled by our testing and counseling service."
- *"Given by our vocational guidance bureau."
- "Lack of funds."

- "This is an individual matter for students and should not be paid out of department funds."
- *"We have a centralized testing bureau that provides counseling, guidance, etc. We chose not to do this within the department for the large number of students we have."
 - *"University gives this."
"Available on campus."
 - *"Given in Testing Service elsewhere on campus."
 - *"No compelling need, I guess."
 - *"No specific reason."
"Similar tests are given to entering freshmen by university."
 - *"Never used it."
 - *"Recommended for students who need help selecting a major."
 - *"Of little value to us."

Why past program participants do not use test

- "I feel that students take enough of this type of test already."
"Available in Vocational Department."
"Doesn't fit our program."

Why non-participants do not use test

- "Is used by our testing service under direction of our counseling service."
"Given by Testing Office now to all freshmen."
"Available in the college testing office."
"No objections."
*"This or a comparable inventory form is being used by our Guidance Center."
"Time schedule."

General Comments:

1966 Program Participants

- *"The Institute should set a minimum as to the number of students that may take the test in order that school comparisons are not biased."
- *"Our interest in the program was to compare our performance with other somewhat comparable schools. We wanted to see norms for Big Eight, Big Ten, AACSB Schools, etc. We were disappointed to find that the number of these schools that participate is very small."
- *"Each test serves a valuable purpose for the customer of this service. We in no way are criticizing or grading unfairly (or otherwise) the AICPA testing efforts that we do not use. A very rounded testing program should be continued."
"We frequently question why our students do not seem to perform as well in the classroom discussions and on our

exams as on Institute Tests. Could the Institute Test be too easy? Or is the competition weak? Perhaps junior colleges and business should be separated from four year institutions when comparisons are prepared."

"Since the tests are used primarily for placement purposes, our department feels that the scores on AICPA tests rate undue importance in the minds of many interviewers. To overcome this shortcoming, the tests are not being given. Of secondary importance is the cost which is borne exclusively by the departmental operating budget."

"It seems that more of the big schools should be using the service."

"The testing program has been meaningful to us. Many students seem to appreciate knowing their achievement in accounting in relation to others in the nation. I would like to see continuance of the testing program."

*"I am a firm believer in the Institute's testing program, but some of my colleagues apparently are not. I guess financing the tests without charging the students has been our biggest problem."

*"We would be interested in contributing suggestions to revise the existing examinations and to create new ones."

Past Program Participants

*"Before I joined the staff they were tried and voted upon. Majority wished to drop (the test)."

"After reading through the tests, I felt that to have my students do well in them, to maximize the usefulness, I would probably have to teach toward the tests which I believe is a poor policy. The tests are slanted too much toward public accounting in my opinion. We do not teach a CPA curriculum even though our students are eligible to sit for CPA exams if they take proper course work."

*"As a general statement, students are everywhere over-tested and in my opinion ought to complain. We require the Graduate Records Exam of all seniors and that is enough."

"I personally am in favor of using the tests and hope to arrange to do so next year."

"We presently plan to administer the tests in 1968."

"We will use the Level II in 1968."

*"See no need (to participate)."

*"I believe the tests should be revised and continued."

"The Program is good and I would like to see further development. I think the accounting profession should 'foot the bill' as its contribution toward helping 'recruit' new members of the profession."

"I would like to use the tests but majority of departmental faculty oppose."

"Decision made by vote of faculty (not to participate in future.)"

Non-Participants

*"Even if no costs were to be involved, I am not certain that we would feel that the time and trouble involved in giving the tests relative to the possible benefits warrant use of the tests."

"I have been interested in some of the tests for some time; but without much reason, have felt that they would be more expense and trouble than they are worth."

"I would be interested in receiving from you full information regarding the tests, their usefulness and value from your standpoint."

*"Never felt the need for any of them."

*"The cost for some 1,100 to 1,500 students is prohibitive."

"I feel that the use of such tests is conducive to the practice of instructors pointing their class work toward the examinations, at the expense of other more meaningful procedures. They feel that is a grading of their teaching effectiveness, rather than a grading of the students' achievement."

"The tests are extremely useful in counseling the student and in raising the level and tone of academic competence. Furthermore, too many students and faculty think of accounting as bookkeeping which any dumbskull could pass but the use of the achievement tests creates a changed climate of opinion in a hurry."

*"The tests are not appropriate for our school (Graduate School)."

*"We are a graduate school only."

"We hope to use the Level I and II tests next Spring."

"We are considering the use of the program in the near future."

"We do not use tests of this kind because most of the CPA offices here have their own placement tests."

"We are in the process of eliminating our Accounting major and hence, no longer engage in this kind of testing."

"All (tests) are being considered for possible use in 1967-68 or later."

"I feel that a testing program such as the one you order would be very beneficial to this college. I will talk with the administration and make every attempt to get the testing program started. We are currently trying to upgrade the accounting department."

*"Our school has experimented with these materials on repeated occasions but have found that they do not fit our particular need. This may be because of the peculiar, if not unique, nature of our required accounting course. I am sure the Institute's services in this area has been very successful in many accounting programs in schools across the country."

- "Tests used in courses have seemed both necessary and sufficient; time for additional testing is not available."
*"College does not budget funds for the above tests."

Professional Accounting Testing Program

Level I Achievement Test

Why 1966 program participants do not use test

- "Level too low for our use of hiring junior accountants."
"Do not believe it applies to persons we are hiring."
"Below standard for our employees."
"We have used this test mainly for testing employees who have previously taken the Level II test."
"We find Level II serves our purpose better, with a minimum amount of time (the total time covered by Level II and Orientation is three hours which fits in nicely to our hiring practices)."
"We are not interested in employing anyone who is not capable of Level II testing."
"Appears to be overlapping test with Level II."

Why past program participants do not use test

- "Not needed."
"Not applicable."
"No need."
"Academic record is as reliable as test."
"Have never used."
"We do not have the form. Achievement level is too low to assist in evaluating any applicants we would consider."

Why non-participants do not use test

- "Takes too long for prospective employees."
"We consider this a test for second year college students."
"Not familiar with tests."
"Do not hire at this level."
"We do not consider the Level I test applicable to graduate accountants already practicing."

Level II Achievement Test

Why 1966 program participants do not use test

- "Generally, a person capable of taking this test has had a good scholastic record or employment status."

Why past program participants do not use test

"Not needed."

"No need."

"Academic record is as reliable as test."

"No employees hired in 1966. Will use if we get prospective employees whom we are interested in."

"Time limitation."

Why non-participants do not use test

"Takes too long for prospective employees."

"We plan to ask some part-time student employees to take this test."

"Extreme reaction on part of many applicants. They feel testing is an infringement."

Orientation Test

Why 1966 program participants do not use test

See General Comments

Comments of past program participants

"Not needed."

"No employees hired in 1966. Will use if we get prospective employees whom we are interested in."

Why non-participants do not use test

"We do not know whether or not we will use. We plan to discuss the question at a partner's meeting."

"Not familiar with tests."

"Extreme reaction on part of many applicants. They feel that testing is an infringement."

Strong Vocational Interest Blank

Why 1966 program participants do not use test

"See letter attached. I doubt the validity of a test that is 20-30 years old."

"We found this, though informative, not to be complete enough nor accurate enough analysis of desire or need. There did not seem to be enough correlation with ability and desire to make this that worthwhile to give under our time limitations."

"Do not contemplate employing anyone who is a non-accounting graduate."

Why past program participants do not use test

- "Not needed."
- "Lack of experience -- may use on test basis."
- "Do not like delay in receiving results."
- "Don't see need."
- "No employees hired in 1966. Will use if we get prospective employees whom we are interest in."
- "We do not have it because of the delays inherent in outside scoring."

Why non-participants do not use test

- "Lack of familiarity. Will discuss its use at a partners' meeting."
- "Not familiar with tests."
- "Extreme reaction on part of many applicants. They feel that testing is an infringement."
- "We feel that this test does not have a specific application in a firm as small as ours."

General Comments

1966 program participants

- "Our firm has found the tests extremely helpful in determining if we should hire an employee. Although we do not use the test (Level II) as a definite determining factor of hiring or not hiring, it is a strong guide in the decision."
- "Tests seem to be helpful -- especially in confirming our impressions -- Plan a complete testing of all personnel not previously tested."
- "The size of our firm precludes extensive use of the tests. The Orientation Test has been helpful when hiring. A one-hour achievement test would be much more helpful to us in hiring."
- "We found a direct correlation to competence in almost all tested areas with the score achieved (Level II and Orientation Test)."
- "We feel that Level II Achievement Test serves our purposes for examining potential employees, generally recent college graduates."
- "All tests are not given to each person. Decision is made after an interview. The tests chosen are those we feel additional information is needed for evaluation. This almost always includes the Vocational Interest Blank."

Past program participants

- "We put our reliance on the college or university where the person graduated, the recommendations of the professors, grades, and most of all the personal interviews. They have proven their ability to comprehend technical subjects by majoring in accountancy and receiving a degree from an accredited college or university."
- "Did not take on any new employees in 1966. After initial test, do not test our staff."
- "Helped determine knowledge and speed where heavy workload is anticipated, speed is important."
- "We have found the tests extremely useful on the few times that we have administered them in forming an opinion (1) to employ an individual (2) to dismiss an individual due to insufficient potential."
- "For the number of college graduates who wish to work for a small firm and to demand for all college graduates, we do not believe a more extensive program is warranted at this time."
- "We have used tests in past and may again in the future. We do not give test to all new employees, but rather use it for periodic evaluation of personnel. Tests do not always indicate "practical" knowledge of accounting and general competence. Lack of turnover in our office does not require yearly evaluations and testing."

Non-participants

- "We have our own methods of evaluating prospective and present personnel."
- "No particular reason. Many of our prospective employees graduate from Midland College where these tests are used."
- "We are primarily interested in testing applicants for employment, mostly not college graduates. Our first interest is in aptitude and next in achievement. Ideally, we would like a battery that would take one hour or less, and one which could be scored locally and quickly. We estimate we would use about six per year, or possibly less. We have a rather low employee turnover, but are inclined to take a look at many applicants when we have an opening."
- "The turnover among the employees of our small firm has been extremely low during the past ten years, therefore we have never used the testing program. We are willing to give the program a chance by using it as the occasion may arise in the future. Please be kind enough to mail us the necessary forms for submitting an examiner application."
- "Never felt that we were prepared to administer the tests."
- "We have wanted to use this for several years but are now giving our first tests and plan to continue to use them to evaluate the present level of learning or knowledge and future capabilities."
- "I have not heard of local firms our size using the tests: also I am somewhat unfamiliar with the details of the tests"

(indicating lack of interest?) I am inclined to believe that the promotion of the tests have been too stereotyped. I would be interested incase results in our size firm and in our locality."

"Inexcusable ignorance of the tests and the absence of any personnel program adhered to consistently. We have become painfully aware of our failures in the field of personnel procurement and training. Familiarity with your testing program is knowledge we wish to obtain. I shall take the necessary steps to become familiar."

"I was not familiar with these tests until I received this questionnaire. Prospective use of the tests seems ideal."

"Lack of knowledge of tests."

"We feel that by close observation of our staff and their performance we can more effectively evaluate their productive capacities. We also rely on college grades in hiring personnel as well as visits with their professors."

"We are considering the possible use of these tests as a post-employment evaluation."

"Did not think of using it. We should use the tests, however, it seems that in our area not much has been said about them and we have not thought about them."

"We have never made them (the tests) available. We do not usually hire more than one employee per year."

"Our testing has been done by the Psychology Department of the (local) university."

"No excuse; order will follow as soon as arrangements can be made."

"We used to use these tests regularly (through a local accounting school). We discontinued because we found that poor results usually indicated or were synonymous with a poor man; however good results did not always indicate a good man -- all in all it seemed inconclusive. We do plan to re-evaluate our policy re: not using these tests. We agree with the intent and theory of their use. Perhaps we were dampened unfortunately in our prior experience."

"Last summer, after the AICPA's direct mailing announcement, we decided that we would like to have these tests available. However, in view of the fact that there is presently no examiner in this city, we asked the state society if it desired to cooperate by securing the appointment of a person who would be allowed to give the tests for all the CPA firms in the area. The society has not yet given its decision. In any event, our present plan is to use the tests."

"Lack of familiarity."

"To answer your question, we have not used these tests because we are unable to interpret them or draw any meaningful conclusion from the results of the tests. Perhaps if a firm was large enough that they had dozens of tests each year and some specialists on the staff who were familiar with the tests they would be able to draw useful conclusions. But I think for the small practitioner the tests are useless." (See letter in appendix).

ELMER FOX & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

WICHITA PLAZA BUILDING

WICHITA, KANSAS 67202

WICHITA-EL DORADO
KANSAS CITY-ST. LOUIS
DENVER-OMAHA
TULSA-DALLAS
SAN FRANCISCO
SALT LAKE CITY
LOS ANGELES

November 13, 1967

Mr. Doyle Z. Williams, Manager
Special Educational Projects
American Institute of Certified
Public Accountants
666 Fifth Avenue
New York, N. Y. 10019

Dear Mr. Williams:

I am returning at this time your questionnaire on the Professional Accounting Testing Program. I also received your follow-up letter since, frankly, I had a hard time with the questionnaire and put it to one side.

You indicated in your letter that we used the testing program in 1966. Actually, our first experience with the test was in 1967 as far as the firm is concerned. As a result, throughout your questionnaire I have changed 1966 to read 1967.

Like most questionnaires, some parts were difficult to answer. We do not use these tests for prospective employees except that on only one occasion I administered this test to prove fairly conclusively that a man who dropped in to see us was not as qualified as other people in the office thought he was. We do not intend to use this test on prospective employees.

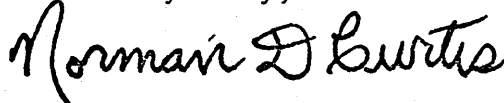
You will note that I am considering dropping the Strong Vocational Interest Test. Frankly, I do not believe that a test as old as this one is still valid. My reason for feeling this way is that in Part 3 under Amusements at least two publications are mentioned which, to the best of my knowledge, have not been published for thirty years. In addition, under Part 6 the names chosen to represent certain fields of interest brought back to my mind names that I had not heard in years. I am sure that if these names seem strange to me they would be absolutely mysterious to young people in their early twenties. Charles Dana Gibson, for example, flourished prior to 1900 and there are very few people left who even remember the Gibson girls.

Mr. Doyle Z. Williams, Manager
Page 2 - November 13, 1967

With the many, many changes in our society just in the last five years the test seems almost archaic.

I hope that the balance of my replies to your questionnaire will be of value to you.

Yours very truly,

A handwritten signature in cursive script that reads "Norman D. Curtis". The signature is written in black ink and is positioned above the typed name.

Director of Personnel

NDCurtis:nb
Enc.



AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS

TESTING PROJECT OFFICE
304 E. 45th STREET
NEW YORK, N. Y. 10017
212 ORegon 9-7070

December 1, 1967

Mr. Norman D. Curtis
Director of Personnel
Elmer Fox & Company
Wichita Plaza Building
Wichita, Kansas 67202

Dear Mr. Curtis:

Mr. Doyle Williams has brought your letter of November 13th to my attention for a reply to your comments about the Strong Vocational Interest Blank.

Your criticisms of the form of the Strong inventory that we have been using in the Professional Accounting Testing Program are well justified. A new edition of this inventory was published last year, and we hope to substitute it for the older form in the program within a year. A copy of the 1966 form is enclosed. I believe you will find that the outmoded terminology and references have been eliminated from this new form.

Before we adopt the new form for the program, we would like to arrange a special administration of it that will yield score profiles for a group of 1,000 certified public accountants who are satisfied with the profession as their career choice. The proposal for conducting this research study has been drafted for the Sub-committee on Personnel Testing to consider at its next meeting, which is scheduled to be held in February. If the proposal is approved, we will start the study without delay.

We appreciate your interest in the Professional Accounting Testing Program.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "R. North", is written over the typed name.

Robert D. North
Manager
Professional Accounting Testing Program

RDN/lo
Enclosure

cc: Mr. Doyle Williams

REA AND ASSOCIATES

CERTIFIED PUBLIC ACCOUNTANTS

P. O. BOX 526 • 122 - 4TH STREET N. W.

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WILLIAM R. FLEMING JR., C. P. A.

RALPH J. BUTERBAUGH
PAUL E. BOEHK, C. P. A.
GENE FLOWERS, C. P. A.
DONALD SULLIVAN, C. P. A.

November 13, 1967

Mr. Doyle Z. Williams, Manager
Special Educational Projects
American Institute of CPA's
666 Fifth Avenue
New York, New York 10019

Dear Mr. Williams:

The questionnaire you mentioned in your letter of November 8th was received some time ago and was not answered because I didn't know how to answer it. While I have known about the tests you mentioned, we have never given but one here in our office and that was the Strong Vocational Interest test. We used it once on a young intern, but never used it again because to us the results of the test were rather meaningless.

I am enclosing a sheet where I have listed the results of all the tests that have been given at the Staff Training Program, under the sponsorship of the Professional Development Division, and as you can see these were from 1961 up to date.

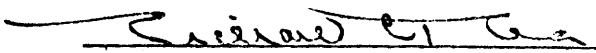
In studying these results I am again unable to draw any conclusions.

The last staff man who took these tests just this summer is the last one on the list and the report from the Professional Development Director is enclosed herewith.

The Director was impressed, but when I discussed these tests with the staff man he said he had taken the examination at least once before and some parts of it twice when he was in college. Consequently, I have to mentally discount the flattering remarks that the Director made.

To answer your question, we have not used these tests because we are unable to interpret them or draw any meaningful conclusions from the results of the tests. Perhaps if a firm was large enough that they had dozens of tests each year and some specialists on the staff who were familiar with the tests they would be able to draw useful conclusions. But I think for the small practitioner the tests are useless.

Very truly yours,


Richard C. Rea

RCR:mls
Enc.

THE LOUISIANA CERTIFIED PUBLIC ACCOUNTANT
August, 1967

Accounting Advances at Northwestern State College of Louisiana

Three years ago, the accounting faculty at Northwestern began a program similar to that which has been recommended in the recent study published by the American Institute of Certified Public Accountants. This program includes an intensive and continuing review of the accounting curriculum with the objectives of:

- (1) improving academic performance in accountancy;
- (2) maintaining an educational program designed to produce a well-rounded graduate.

With these objectives in mind, the accounting faculty revised Northwestern's program to stress four areas: curriculum, performance evaluation, English proficiency, and instruction. Certain structural changes were made by the college in order to carry out this program including the establishment of a School of Business with a Department of Accounting, as well as Departments of Business Administration, Economics, and Business Education and Office Administration.

Curriculum

The course requirements of the revised curriculum in accounting are as follows:

Freshman Year	Hours
English	6
Mathematics (unspecified)	6
Science	6
Psychology	3
Speech	3
Health, P.E., Electives	9

Sophomore Year

English	3
Statistics	3
Elementary Accounting	6
Economics	6
Science	6
Business Communications	3
Electives and P.E.	5

Junior Year	Hours
Intermediate Accounting	6
Income Tax	3
Accounting elective	3
Management	3
Marketing	3
Money and Banking	3
Business Law	3
Data Processing	3
Electives	6

Senior Year	Hours
Advanced Accounting	3
Cost Accounting	3
Auditing	3
Finance	3
Report Writing	2
Electives	17

The program includes a broad liberal arts exposure — especially in areas critical to accounting performance. It requires 14 hours of written English (including Business Communications and Report Writing), 3 hours of oral English (Speech), 6 hours of mathematics and 12 hours of science. In addition, the student is required to take courses in statistics, commercial law, economics, management, marketing, and finance.

The first six hours of accounting are devoted to principles of financial accounting. Four class hours per week, consisting of both lecture and laboratory

hours, are devoted to this introductory course. **Intensive drill in basic accounting techniques is required of the student.** In the junior-senior years the student devotes his time to an intensive study of specific accounting areas. These include 6 hours of intermediate accounting and a 3-hour course in each of the following: cost and advanced accounting, income taxes, auditing, and an accounting elective.

Performance Evaluation

In reviewing the accounting curriculum, the Northwestern faculty recognized the need for an objective performance evaluation of accounting majors in addition to classroom grades. Thus, a program of continuous evaluation was designed using tests compiled by the American Institute of Certified Public Accountants. Accounting majors take the Institute's orientation examination in accountancy after completing 3 hours of the introductory course. After 6 hours they take Level I and when senior rank is attained, Level II. These examinations not only measure student performance but provide the basis for a continuous review of the accounting program as a whole.

English Proficiency

Since written and oral communication play such an important part in any professional or business career, one of the faculty's greatest concerns is English proficiency. The result, as set forth above, is an increased English requirement amounting to over 13% of the student's total degree hours. In addition, accounting majors are advised

to elect advanced grammar, discussion questions (graded for construction as well as content) are included on examinations, and consideration is being given to junior English examinations.

Instruction

Inasmuch as Northwestern began as a teacher's college, concern for proper instruction played an important role in the faculty review. The current shortage of qualified and experienced teachers made this a major concern. The problem was resolved by:

- (1) emphasis upon classroom teaching
- (2) assignment of experienced teachers to basic courses, and
- (3) use of student tutors.

Thus, Northwestern hopes to attain better performance and greater interest in accounting.

M. B. A. Program

Along with the revised Accounting curriculum, a Master of Business Administration program was instituted in the Spring Semester of 1967. This program allows students to concentrate in any business field offered at Northwestern including accounting. A basic core of 15 hours in accounting, finance, marketing, economics, and research methodology is required — all other subjects may be elected with approval of the graduate faculty.

With the above changes, Northwestern expects to attain more proficient graduates in accounting and its other rapidly advancing business areas.

NORM DATA
COLLEGE ACCOUNTING TESTING PROGRAM
as of November 30, 1967

FALL PROGRAM

<u>Test</u>	<u>Colleges</u>	<u>Students</u>	<u>Year of Study</u>	<u>Years</u>
O-B	78	19,654	1st yr.	Fall 1964-66
O-B	17	488	2nd yr.	Fall 1960-66
O-B	13	389	3rd yr.	Fall 1960
O-B	21	529	Senior	Fall 1960
II-E	45	1,152	Senior	Fall 1960-66
II-E	19	616	Comb. 2nd & 3rd yr	Fall 1960-66
I-D	15	597	1st yr.	Fall 1965-66
I-D-S	26	1,647	1st yr.	Fall 1965-66
I-D-S	10	226	2nd yr.	Fall 1965-66

NOTE: The norms for the Fall Program will be updated to include the 1967 participation as soon as the present program ends.

MIDYEAR PROGRAM

<u>Test</u>	<u>Colleges</u>	<u>Students</u>	<u>Year of Study</u>	<u>Years</u>
O-C	44	5,712	1st yr.	Mid 1963-67
O-C	9	552	2nd yr.	Mid 1961-67
O-C	11	245	3rd yr.	Mid 1961-67
O-C	15	183	Senior	Mid 1961-67
II-E	84	3,874	Senior	Mid 1961-67
II-E	47	992	Comb. 2nd & 3rd yr.	Mid 1961-67

<u>Test</u>	<u>Colleges</u>	<u>Students</u>	<u>Year of Study</u>	<u>Years</u>
I-D	12	359	1st yr.	Midyear 1967
I-D-S	26	2,165	1st yr.	Midyear 1967

SPRING PROGRAM

<u>Test</u>	<u>Colleges</u>	<u>Students</u>	<u>Year of Study</u>	<u>Years</u>
O-A	65	6,587	1st yr.	Spring 1962-67
O-A	23	403	Comb. 2nd & 3rd yr.	Spring 1961-67
O-A	19	325	Seniors	Spring 1961-67
II-F	155	7,488	Seniors	Spring 1964-67
II-F	110	3,504	Comb. 2nd & 3rd yr.	Spring 1964-67
II-B	60	3,426	Seniors	Spring 1960-67
**II-E	79	2,111	Seniors	Spring 1960-61
II-E	31	475	Comb. 2nd & 3rd yr.	Spring 1960-61
**I-D	77	5,933	1st yr.	Spring 1965-66
I-D	35	1,087	2nd yr.	Spring 1965-66
I-D	10	136	3rd yr.	Spring 1965-66
**I-D-S	65	5,989	1st yr.	Spring 1966
I-D-S	16	388	2nd yr.	Spring 1966
I-E	51	3,242	1st yr.	Spring 1967
I-E	19	553	Comb. 2nd & 3rd yr.	Spring 1967
I-E-S	89	6,930	1st yr.	Spring 1967
I-E-S	16	457	2nd yr.	Spring 1967
I-E-S	6	116	3rd yr.	Spring 1967

** Not used in Spring.

NORM DATA
 PROFESSIONAL ACCOUNTING TESTING PROGRAM
 as of November 22, 1967

PROFESSIONAL PROGRAM

<u>Test</u>	<u>Participants</u>	<u>Group</u>	<u>Years</u>
O-A	1,505	*Jr. Emp. Accts.	1961
O-A	255	*Semi-Senior Emp.	1961
O-A	200	*Senior Employed	1961
O-A	62	*Partners, Mgrs. & Others	1961
O-A	2,022	*Total Employed	1961
O-A	304	College Seniors	1961-66
O-A	368	Comb. 2nd & 3rd Year College	1961-66
O-A	5,654	1st Yr. College	1962-66
<hr/>			
II-E	1,508	*Jr. Emp. Accts.	1961
II-E	254	*Semi-Senior Emp.	1961
II-E	192	*Senior Employed	1961
II-E	63	*Partners, Mgrs. & Others	1961
II-E	2,017	*Total Employed	1961
II-E	1,328	College Seniors	1961-66
<hr/>			
I-D	5,933	1st Yr. College	1965-66
I-D	1,087	2nd Yr. College	1965-66
I-D	136	3rd Yr. College	1965-66
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I-D-S	4,270	1st Yr. College	1966
I-D-S	297	Comb. 2nd & 3rd Year College	1966

* Norms established in 1961 Staff Testing Program by 1 large firm and 346 small firms.

