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THE AMERICAN INSTITUTE OF ACCOUNTANTS
ACCOUNTING TESTING PROGRAM

Bulletin No. 5

RESULTS OF ACHIEVEMENT TESTS AND ORIENTATION TESTS
ADMINISTERED IN SCHOOLS OF BUSINESS OF
NINETY-NINE COLLEGES AND UNIVERSITIES

Spring, 1948

Prepared by
Committee on Selection of Personnel
437 West 59th Street
New York 19, N. Y.

August, 1948

21 Audubon Ave

32

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CONTENTS

	Page
I. INTRODUCTION.	1
II. SUMMARY OF TEST RESULTS	3
III. RESULTS OF ACHIEVEMENT TESTS AND ORIENTATION TESTS IN INDIVIDUAL COLLEGES	10
IV. THE FUTURE OF THE COLLEGE ACCOUNTING TESTING PROGRAM.	20

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College of William and Mary, St. Helena Extension
University of Wisconsin
Wright Junior College

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INTRODUCTION

The nature of the College Accounting Testing Program was discussed in previous bulletins issued by the Committee on Selection of Personnel. Briefly stated, the program has two main purposes. These are (1) to obtain objective information about individuals which will assist schools of business of colleges and universities in admission, placement, and guidance and (2) to provide aptitude, achievement, and interest scores on graduating seniors that will be of assistance both to individual graduates in seeking employment and to prospective employers in evaluating the candidate for employment.

A test of orientation or aptitude for accounting and two levels of achievement tests were constructed and evaluated through research extending over a period of more than three years. Two forms of each test have been developed. These tests were used in the fall and spring testing programs during the academic years 1946-47 and 1947-48, and norms for various levels of the study of accounting were prepared for them. In addition, special accounting norms were developed for twenty-seven scales of the Strong Vocational Interest Blank for Men. This interest inventory may be used at any time of the year and at any age level from approximately seventeen years upward.

The achievement tests formed the main basis of the spring, 1948, program. The Level I Achievement Test was used in first- and second-year classes and in a few groups in their third year of accounting. The Level II Achievement Test was administered to accounting seniors near the point of graduation. A considerable number of colleges also gave the Orientation Test, although the larger use of this test was in the fall. Strong Vocational Interest Blanks were filled out by a few hundred students and returned for scoring and a profile report of the results.

Since the research phase of the project was still going on, and norms for the tests were still being collected, test materials were furnished without charge to the colleges.¹ Except in the case of graduating seniors whose tests were scored free, a charge of ten cents a student was made for each Orientation or Achievement Test scored by the project office. These tests could be scored locally, if desired, and many of them were scored that way. The project office sample checked all local scoring before including the results in the norms. A charge of \$1.25 a student was made for scoring and reporting the results of the Strong blank.

The results of the Orientation Test and the Achievement Tests are reported in Sections 2 and 3. No summary of the Strong blank results is included in this bulletin. The following illustrative profile of interest scores for one student will show the type of report made on the Strong blank.

¹As explained in the last section of this bulletin, it will be necessary in future testing programs to charge colleges for the use of test materials other than those of an experimental nature.

II

SUMMARY OF TEST RESULTS

Scores obtained on the various tests employed in the spring, 1948, testing program by accounting students in the participating institutions are shown in Tables I through V. The total number of students included in each distribution is indicated at the bottom of the distribution columns, together with the range of raw scores, the medians, and the Q1 and Q3 scores. The tenth percentile and nintieth percentile scores also are indicated for each distribution. The medians and interquartile ranges are shown graphically by heavy black lines drawn adjacent to the distributions.

Achievement Tests. Table I shows the distributions of total scores on the Achievement Test, Level I, Form B. The scores are distributed separately by year of study. As in previous testing programs, wide ranges of achievement are evident. Scores for first-year accounting students on the Level I, Form B, test range from zero up to within ten points of a perfect score, this test having 178 items. The range of scores lessens somewhat with successive advance in year of study. Although there is much overlapping in the distributions, the median scores tend to increase with year of study. It is interesting to note that the upper limit of raw score range decreases with level of study. That is, the top student in the first-year distribution surpasses all of the second- and third-year groups, while the top student in the second-year distribution surpasses all of the third-year group.

Scores of seniors on the Achievement Test, Level II, are distributed in Table II. There are separate distributions for Forms A and B. Both Form A and Form B of the Level II test have 150 possible points. Although no attempt was made to equate the groups taking the separate forms, no specific selection factors operated in choice of form of the Level II test. Hence, one may infer from the differences in medians on the two forms that the Form B test may be slightly more difficult than Form A. The range of scores is considerably wider in the Form A distribution. The lowest score on this form of the test is some fifteen points less than the lowest score made on Form B, while the highest score on the II-A test is just two points less than a perfect score. Scores on the II-B test range to within twelve points of a perfect score. The wide ranges of achievement at the senior level are somewhat startling in that normal elimination throughout the four years of study is expected to limit the range of achievement by the time a full course of study is completed.

Orientation Test. More than 8,000 first-year accounting students were administered the Orientation Test in the spring, 1948, program. The majority of the group took Form B of the Orientation Test. Smaller numbers of second-year students and seniors also took Form B.

Orientation Test, Form B, results are distributed in Tables III and IV. The verbal and quantitative scores are distributed separately by year of study in Table III, and total scores are distributed by year of study in Table IV. Possible ranges of scores on the Orientation Test are from zero to 100 on the verbal section, zero to 30 on the quantitative section, and zero to 130 on total score. Following the pattern of achievement test distributions, the ranges of Orientation Test scores are quite wide. The range for the first-year group on verbal score extends from

zero to 91, just nine points below a perfect score. The senior group displays an almost identical range in verbal score, while the distribution for the second-year group does not range so low, but extends to about the same upper limit as the other two groups. The entire possible range of quantitative scores is found in the distribution for first-year students. The second-year and senior distributions each range upward to perfect scores, but the poorer students in each distribution surpass the lower part of the first-year group. These wide ranges of verbal and quantitative scores are reflected in the total score distributions. It is interesting to note that although the Orientation Test is designed to measure aptitude for accounting, the median scores increase with year of study, suggesting that scores on this test are affected somewhat by extent of formal study of accounting.

Table V shows the distributions of part and total scores on Form A for the Orientation Test taken by 949 first-year accounting students in the spring, 1948, program. In comparing this table with the distributions of Form B scores, for first-year accounting students, it will be found that the median scores on the Form B test tend to run higher throughout the test. This supports the conclusion made in a previous study¹ of these two forms that the Form B test is somewhat easier.

¹"The College and Professional Accounting Testing Programs: Results of Tests in Schools of Business of Fifty-Seven Colleges and in Fifteen Public Accounting Firms" page 4.

TABLE I

DISTRIBUTIONS OF TOTAL SCORES ON ACHIEVEMENT TEST,
LEVEL I, FORM B

Score	1st year	2nd year	3rd year
177-178			
176			
172			
168	1		
164		1	
160	3	2	2
156	5	6	2
152	9	8	1
148	13	18	3
144	22	23	
140	23	23	7
136	49	40	7
132	59	42	4
128	74	58	7
124	118	58	7
120	150	86	12
116	182	91	11
112	230	95	8
108	282	93	20
104	355	107	15
100	451	89	11
96	483	100	11
92	481	107	12
88	543	97	6
84	524	92	11
80	571	81	7
76	568	74	6
72	544	79	6
68	504	73	8
64	510	69	1
60	416	55	6
56	436	43	
52	349	37	4
48	301	34	1
44	292	38	
40	269	19	1
36	240	22	1
32	162	11	
28	129	7	
24	105	4	
20	71	3	
16	61	2	
12	38	4	
8	12	3	
4	10		
0-3	6		
Total	9651	1894	198
Q3	96.8	115.3	120.8
Md	78.6	95.7	105.9
Q1	59.4	74.5	87.1
Range	0-168	9-164	38-161
10%ile	41.9	56.5	70.9
90%ile	111.6	130.2	137.3

TABLE II

DISTRIBUTIONS OF TOTAL SCORES ON ACHIEVEMENT TESTS,
LEVEL II, FORM A, AND LEVEL II, FORM B (SENIORS)

Score	II-A	II-B
150		
147	1	
144		
141	2	
138	3	1
135	6	1
132	12	4
129	16	5
126	18	8
123	11	6
120	18	12
117	20	17
114	17	27
111	18	32
108	28	33
105	22	36
102	20	42
99	26	46
96	25	40
93	31	47
90	31	62
87	29	54
84	19	47
81	21	48
78	22	49
75	29	38
72	22	38
69	11	45
66	21	37
63	15	34
60	11	27
57	19	16
54	10	19
51	10	14
48	16	21
45	10	13
42	9	18
39	6	7
36	11	6
33	9	4
30	5	2
27	5	1
24	1	
21	3	
18	2	
15	3	1
12	1	
9	1	
6	3	
3		
0-2	1	
Total	653	958
Q3	109.0	101.0
Mid	90.1	86.6
Q1	67.8	70.3
Range	1-148	16-138
10%ile	46.6	55.4
90%ile	124.4	112.6

TABLE III
 DISTRIBUTIONS OF SCORES ON PART I, VERBAL, AND PART II, QUANTITATIVE,
 ON ORIENTATION TEST, FORM B

Score	V E R B A L			Score	Q U A N T I T A T I V E		
	1st yr.	2nd yr.	Senior		1st yr.	2nd yr.	Senior
99-100							
96							
93							
90	4	1	2	30	18	2	4
87	12	3	4	29	25	2	7
84	25	1	4	28	72	2	6
81	25	4	4	27	40	3	7
78	48	4	7	26	81	10	9
75	70	4	12	25	147	15	16
72	95	9	13	24	194	8	16
69	132	8	13	23	257	8	18
66	133	8	20	22	234	9	17
63	192	11	14	21	272	13	30
60	220	18	17	20	319	14	20
57	214	10	20	19	339	18	14
54	330	11	16	18	383	9	13
51	335	11	20	17	368	7	14
48	395	15	14	16	405	12	17
45	464	19	14	15	411	12	12
42	444	14	7	14	471	13	6
39	475	8	14	13	433	17	6
36	517	5	13	12	463	8	8
33	498	9	9	11	381	4	2
30	483	6	7	10	402	4	5
27	427	8	5	9	345	2	6
24	372	4	4	8	331	3	3
21	376	3	2	7	247	1	2
18	276	4	3	6	180	3	1
15	221	1	2	5	132		2
12	177			4	94		2
9	112		1	3	69		
6	74		1	2	42		
3	38			1	24		
0-2	12		1	0	17		
Total	7196	199	263	Total	7196	199	263
Q3	51.3	63.9	68.0	Q3	19.6	23.0	24.0
Md	39.1	52.0	56.7	Md	14.9	19.3	20.9
Q1	28.0	42.4	43.6	Q1	10.8	14.6	16.6
Range	0-91	15-90	0-90	Range	0-30	6-30	4-30
10%ile	18.9	30.0	33.1	10%ile	7.7	12.4	12.4
90%ile	63.3	74.0	76.7	90%ile	23.4	25.9	26.7

TABLE IV

DISTRIBUTIONS OF TOTAL SCORES ON ORIENTATION TEST, FORM B

Score	1st year	2nd year	Seniors
128-130			
124			1
120			5
116	6	1	5
112	12	2	5
108	25	2	5
104	32	5	5
100	49	8	12
96	79	4	15
92	116	6	13
88	159	11	19
84	187	12	16
80	204	11	21
76	276	14	28
72	343	19	18
68	376	14	14
64	447	18	13
60	487	17	18
56	514	12	12
52	564	15	14
48	515	4	7
44	539	6	11
40	490	7	2
36	433	6	3
32	353		2
28	334	5	3
24	247		2
20	171		1
16	131		1
12	57		1
8	33		
4	14		1
0-3	3		
Total	7196	199	263
Q3	68.7	84.4	89.9
Md	54.0	70.7	77.2
Q1	40.2	58.3	61.3
Range	2-117	29-119	5-120
10%ile	28.8	45.3	47.7
90%ile	82.9	98.1	100.6

TABLE V

DISTRIBUTIONS OF SCORES ON PART I, VERBAL, AND PART II, QUANTITATIVE,
AND TOTAL OF ORIENTATION TEST, FORM A (FIRST YEAR)

Score	VERBAL	Score	QUANTITATIVE	Score	TOTAL
99-100				128-130	
96				124	
93				120	
90	1	30	2	116	
87	1	29	5	112	2
84	3	28	4	108	2
81	1	27	7	104	2
78	2	26	4	100	1
75	5	25	13	96	10
72	7	24	14	92	8
69	15	23	11	88	9
66	17	22	16	84	17
63	15	21	28	80	20
60	16	20	29	76	15
57	23	19	42	72	31
54	34	18	53	68	43
51	38	17	53	64	58
48	48	16	61	60	58
45	55	15	95	56	61
42	54	14	68	52	72
39	60	13	70	48	81
36	64	12	70	44	79
33	81	11	71	40	78
30	73	10	47	36	73
27	72	9	42	32	71
24	75	8	39	28	59
21	53	7	32	24	44
18	58	6	21	20	25
15	40	5	18	16	18
12	14	4	12	12	4
9	17	3	9	8	6
6	4	2	6	4	1
3	2	1	7	0-3	1
0-2	1	0			
Total	949	Total	949	Total	949
Q3	47.4	Q3	16.8	Q3	62.7
Md	35.4	Md	13.4	Md	48.8
Q1	23.9	Q1	10.1	Q1	36.5
Range	2-91	Range	0-29	Range	2-113
10%ile	18.9	10%ile	6.7	10%ile	27.6
90%ile	58.4	90%ile	20.3	90%ile	74.9

III

RESULTS OF ACHIEVEMENT TESTS AND ORIENTATION TESTS IN INDIVIDUAL COLLEGES

Tables VI through XIV show the scores of the students in the participating institutions on the Achievement Tests and the Orientation Test, distributed separately by college. Distributions are identified by code numbers at the top of the tables. Each college is informed of its own code number. The same code number applies throughout all the tables in which the college appears.

As with the summary distributions, the individual college distributions are in terms of raw scores listed near the margins of each chart. The medians and the upper and lower limits of the middle 50 per cent of the distribution of scores for the entire group of students at each tabular division are shown by broken horizontal lines across the table. The median and interquartile range for each individual distribution can be compared readily with these "national" norms. As in the summary distribution table, the short solid horizontal line adjacent to the distribution locates the median, while the vertical solid line marks the range of scores for the middle 50 per cent. The total number of students included in each distribution, the range of raw scores, the median, the Q1 and the Q3 scores are listed under each distribution.

Individual distributions of scores on Achievement Test, Level I, Form B, are shown in Tables VI through VIII, for first-, second-, and third-year students, respectively. Distributions of scores of seniors on Achievement Test, Level II, are shown in Tables IX and X. Table IX shows results for Form A and Table X indicates results for Form B of the Level II test. Distributions of scores of first-year accounting students on the Orientation Test are shown in Tables XI and XIV. The results for Form B of this test are distributed in Table XI by individual schools, while Table XIV shows individual distributions for Form A of the test. Orientation Test, Form B, results for second-year students and seniors are shown in Tables XII and XIII, respectively.

Since it is recognized that each participating institution will be interested in determining the standing of its own students at each year of study with respect to the other colleges participating in the program, every effort has been made to eliminate elements of selection in testing students at a particular school. While there are some instances of testing on a voluntary basis, the large majority of distributions represent complete testing of all students at the particular level of study. Some element of selection may be injected when testing is on a voluntary basis in that poorer students may not wish to submit to testing. In general, however, comparisons yielded by these tables conform with results of various studies of differences in aptitude and achievement among schools and colleges widely distributed geographically.

TABLE VII
DISTRIBUTIONS OF SCORES MADE ON ACHIEVEMENT TEST, LEVEL I, FORM B, BY SECOND-YEAR STUDENTS OF ACCOUNTING IN TWENTY COLLEGES

	2	64	12	15	66	65	30	28	36	34	67	58	52	39	54	37	44	62	63	68		
177-178																						177-178
176																						176
172																						172
168																						168
164			1																			164
160			1														1					160
156	1		2		1	1							1									156
152		1	2		1							1									2	152
148		2	3	2	2			2			2					3					148	
144	2	4	3		6		1	1			1		2			1					144	
140		2	7	1	4		3	2		1											140	
136	5	2	7	3	11			3			2	1									136	
132	3	3	9	5	4	1	1	4			2	3	4								132	
128	4	4	8	3	7	1	5	1			1	1	4	1	1	2					128	
124	3	3	7		6	1	5	1			1	1	1	2					1		124	
120	6	1	10	1	11	3	2	5		1	5	5	6		3	8				1	120	
116	1	5	10	4	16	2	3	2			6	4	9		3	5			1		116	
112	2	6	12	7	7	2	4	2			5	4	7		2	7				2	112	
108	1	2	10	3	9	2	2	2		2	6	6	3		3	10		1		1	108	
104	2	2	10	1	9	2	7	4		2	7	3	5		5	5					104	
100		3	3		3		7	6			5	8	8		3	3				2	100	
96	1	1	4	1	3		3	7		2	4	5	11		1	3			1	1	96	
92		1	3		7		5	1		3	1	15	5		4	11		4		4	92	
88			3		6	1	6	5		1	2	6	10		3	5		1		5	88	
84	1		1		3		3	6			1	5	8		2	15		2	1	8	84	
80			1		1		4	4		1	4	6	7		2	6				5	80	
76							2	1			3	6	8		3	7		3	1	3	76	
72			1		1	1	2	1		2	6	2	4		5	8		1	1	3	72	
68			1		2			4		1	6	6	7		3	7			1	3	68	
64	1		1				2	1		1	4	2	4		4	9		2	4	2	64	
60							1	3			2	6	7		2	4			2	3	60	
56			1								2	1	3		1	5		2		4	56	
52												1	5		1	4		2		4	52	
48											4		2		3	6				7	48	
44								1			1		2			1			1	7	44	
40									2		2					2		1		6	40	
36									2			1	2		1	2		1		2	36	
32											1		1					1		2	32	
28																1				5	28	
24																				2	24	
20																				1	20	
16																				1	16	
12														1						2	12	
8															1						8	
4																					4	
0-3																					0-3	
Total	33	42	121	31	120	17	68	68	31	21	128	85	137	48	52	149	535	21	20	87	Total	
Q3	135.7	137.0	134.1	134.6	131.4	123.7	120.0	120.8	114.5	103.0	110.0	110.5	111.7	105.6	104.0	107.8	104.2	92.8	92.0	85.6	Q3	
Md	126.0	124.0	119.8	119.5	118.3	117.0	103.4	96.6	95.3	94.0	93.9	93.0	91.0	89.3	87.3	87.3	84.9	78.0	67.0	60.7	Md	
Q1	117.0	113.0	108.5	113.6	105.8	108.5	90.0	85.1	63.5	82.3	77.1	77.5	72.3	68.0	73.6	69.9	67.1	58.5	60.0	44.4	Q1	
Range	64-158	93-153	56-164	97-151	68-158	74-156	62-144	45-149	37-140	68-120	32-150	37-153	15-156	38-129	9-128	30-150	10-160	36-108	36-124	14-134	Range	

*Distributions of less than fifteen cases were excluded.

TABLE VIII

DISTRIBUTIONS OF SCORES MADE ON ACHIEVEMENT TEST, LEVEL I, FORM B, BY THIRD-YEAR STUDENTS OF ACCOUNTING IN NINE COLLEGES

	2	65	69	64	30	37	8	54	21	
177-178										177-178
176										176
172										172
168										168
164										164
160	1				1					160
156	1					1				156
152		1								152
148						2		1		148
144										144
140		1		1	1	3			1	140
136	1	1		1	3			1		136
132		1	1	1	1					132
128					3	1		2	1	128
124					1	3		1	2	124
120		2		3	4	2		1	2	120
116	1			2	1	2	1	3	1	116
112					2	1		1	4	112
108					3	5		5	7	108
104				1	2	5		3	4	104
100		1		2	2			2	4	100
96					2	1	1	4	3	96
92					1	2		5	4	92
88	1							1	4	88
84						2		3	6	84
80						1		1	5	80
76						2		2	2	76
72								2	4	72
68						2		1	5	68
64								1		64
60						1		1	4	60
56										56
52					1			2	1	52
48									1	48
44										44
40						1				40
36					1					36
32										32
28										28
24										24
20										20
16										16
12										12
8										8
4										4
0-3										0-3
Total	5	7	1	11	29	37	2	43	63	Total
Q3					130.3	124.7		111.4	108.1	Q3
Md	138.0	134.0		120.7	118.0	109.2		98.5	91.5	Md
Q1					104.5	92.5		85.0	77.5	Q1
Range	89-160	103-152	132	102-143	38-161	41-158	98-119	53-151	48-140	Range

TABLE IX
DISTRIBUTIONS OF SCORES MADE ON ACHIEVEMENT TEST, LEVEL II, FORM A, BY SENIORS IN ACCOUNTING IN TWENTY-EIGHT COLLEGES

	70	35	3	64	65	32	6	44	9	71	37	72	2	30	7	49	38	69	19	10	53	73	50	74	33	68	45	36	150	
150																													150	
147																														147
144																														144
141																														141
138	1			1											1						1								138	
135	1			2											1						1								135	
132				4		1	1			1		1											1						132	
129				6	1																								129	
126		2		2		1									1	1					1						1		126	
123	1			3								2			2					1	2						1		123	
120	1			2						1											1								120	
117	1			2							1		1							1	2								117	
114				2							1										2								114	
111		1		2			2								1					5							1		111	
108	1			4								3	1		1					1	1								108	
105	1			6			1				3				2						2								105	
102				2	1					2		3			1						1								102	
99				3			1			1		2			2						1						2		99	
96				3	1	2	1			3		4			1						2							2	96	
93		2		3	1					2		1			1						2								93	
90				2						1		2			3						3								90	
87				2						2		3			3						2								87	
84				1						2		1			1						5								84	
81	1			3						1		1			1						2								81	
78		1		2						1		2			2						1						1		78	
75				5		1				1		3			1						1								75	
72				2						2		1			2						1								72	
69							2			3		2			1						2								69	
66				1						1		3			2						1								66	
63				3						1		1			1						2								63	
60		1		1						1		1			1						3								60	
57				2						1					1						1								57	
54				3						1		1			1						2								54	
51				1						1					1						1								51	
48				1	1					1					1						1								48	
45						1						1			1					5	1								45	
42												1			2					1	1								42	
39				1											1						3								39	
36										1					1						2								36	
33															1						1								33	
30										1		1									1								30	
27												1									1								27	
24												1									1								24	
21										1																	2		21	
18																													18	
15																						1							15	
12																						1							12	
9																													9	
6																													6	
3																													3	
0-2																													0-2	
Total	7	12	14	75	7	8	9	7	35	12	24	38	5	26	27	22	7	11	23	90	19	55	10	64	8	13	29	16	Total	
Q3				121.9					114.9		106.5	111.5		107.3	109.7	111.8			99.8	103.9	93.8	96.8		92.0			83.3	84.0	Q3	
Md	121.5	120.0	118.5	104.3	103.5	102.0	100.5	100.5	99.8	99.0	96.0	93.0	91.5	91.5	90.5	90.0	88.5	87.8	87.8	84.9	82.5	80.3	76.5	76.3	70.5	67.5	65.3	51.0	Md	
Q1				77.3					74.8		81.0	76.5		74.3	70.1	64.5			65.3	60.8	56.3	53.6		59.4			39.8	37.5	Q1	
Range	82-140	60-130	90-137	44-139	50-130	47-133	72-134	59-122	23-132	31-132	27-134	8-134	75-111	39-141	35-130	17-128	76-127	50-125	34-128	27-142	15-138	14-129	7-135	20-133	38-107	11-127	13-114	1-95	Range	

*Distributions of less than five cases were excluded.

TABLE I
DISTRIBUTIONS OF SCORES MADE ON ACHIEVEMENT TEST, LEVEL II, FORM B, BY SENIORS IN ACCOUNTING IN THIRTY-THREE COLLEGES

	1	25	75	76	37	77	48	44	15	40	12	69	78	70	79	28	80	21	9	66	61	6	7	10	51	45	54	49	24	50	81	22	82		
150																																			150
147																																			147
144																																			144
141																																			141
138																1																			138
135																																			135
132																																			132
129																																			129
126																																			126
123																																			123
120																																			120
117																																			117
114																																			114
111																																			111
108																																			108
105																																			105
102																																			102
99																																			99
96																																			96
93																																			93
90																																			90
87																																			87
84																																			84
81																																			81
78																																			78
75																																			75
72																																			72
69																																			69
66																																			66
63																																			63
60																																			60
57																																			57
54																																			54
51																																			51
48																																			48
45																																			45
42																																			42
39																																			39
36																																			36
33																																			33
30																																			30
27																																			27
24																																			24
21																																			21
18																																			18
15																																			15
12																																			12
9																																			9
6																																			6
3																																			3
0-2																																			0-2
Total	8	31	33	10	23	39	16	7	15	17	70	9	16	5	24	33	17	47	32	100	27	8	27	82	17	30	33	21	14	17	25	50	34	Total	
Q3		112.3	113.6		109.9	105.2	108.0		114.4	107.3	106.5		97.5		103.5	106.1	101.6	107.3	103.5	96.0	89.3			90.9	98.3	92.3	102.8	92.6	86.3	86.3	79.3	69.5		Q3	
Md	105.0	104.3	100.5	100.5	99.4	97.9	97.5	96.8	94.5	94.5	93.6	92.5	91.5	91.5	91.2	89.3	89.3	88.5	88.5	87.3	84.8	84.0		83.3	83.0	82.5	82.5	80.6	78.8	76.5	73.5	66.0	54.8	Md	
Q1		89.6	88.9		91.1	85.1	72.0		80.8	84.8	77.7		79.0		82.5	67.3	69.8	74.1	69.0	78.0	65.1			69.8	70.1	54.8	67.5	70.4	63.8	61.3	50.3	55.5	42.8		Q1
Range	84-113	44-126	44-125	80-128	64-127	60-122	44-112	78-127	78-123	70-118	51-133	72-119	61-119	60-112	36-121	34-138	54-123	46-133	44-129	41-116	40-118	76-110	47-121	41-130	34-129	42-116	56-113	33-130	55-133	49-109	43-116	27-115	16-93	Range	

*Distributions of less than five cases were excluded.

TABLE XI

DISTRIBUTIONS OF SCORES MADE ON ORIENTATION TEST, FORM B, BY FIRST-YEAR STUDENTS OF ACCOUNTING IN THIRTY-FIVE COLLEGES

	83	23	2	31	84	9	80	43	3	64	19	24	7	8	85	86	75	59	87	42	6	5	44	34	68	46	61	36	10	40	88	55	33	18	54			
128-130																																					128-130	
124																																					124	
120																																					120	
116	3				1																																116	
112	6	1																																			112	
108	9	1		1	4																																108	
104	11			1	4																																104	
100	20	2		2	3																																100	
96	22	1		1	7	2																															96	
92	35			3	12	6																															92	
88	36	4		2	9	10																															88	
84	46	3		3	10	13																															84	
80	43	1		7	11	15																															80	
76	51	3		2	11	21																															76	
72	58	4		7	17	14																															72	
68	52	6		3	16	24																															68	
64	41	3		6	18	25																															64	
60	35	3		9	30	24																															60	
56	33	4		4	15	31																															56	
52	29	2		9	22	26																															52	
48	18	6		5	11	13																															48	
44	12	3		2	10	17																															44	
40	6	2		2	8	9																															40	
36	6	1		2	6	4																															36	
32	1	1			4	4																															32	
28	1	3			5	1																															28	
24																																						24
20				1	1																																	20
16					3																																	16
12	1																																				12	
8																																						8
4																																						4
0-3																																						0-3
Total	575	54	72	237	261	176	126	67	297	456	26	24	104	60	821	33	538	98	879	46	218	21	266	36	78	138	130	43	472	59	277	27	78	254	135	Total		
Q3	87.8	79.3	81.1	80.3	76.7	74.8	74.0	75.5	72.8	73.7	82.0	80.0	73.8	68.0	64.0	63.7	69.4	66.8	62.7	58.5	60.6	63.5	62.2	56.0	58.9	61.2	59.1	60.5	56.3	55.4	53.1	58.5	46.8	51.0	52.2	Q3		
Md	75.6	66.7	65.3	64.8	64.2	63.2	62.4	61.2	61.1	61.1	60.0	58.0	57.9	55.0	53.7	52.7	52.2	50.7	50.1	48.0	47.6	47.3	46.3	46.0	45.8	44.8	44.0	43.8	43.6	42.8	39.7	39.6	37.5	35.3	34.7	Md		
Q1	64.2	50.3	54.7	54.0	54.7	53.9	50.0	50.7	48.0	47.5	45.0	45.3	47.5	43.3	44.4	35.0	39.9	40.2	38.0	37.7	37.8	33.7	34.2	36.0	31.5	30.7	33.3	35.0	32.8	29.8	28.7	31.0	28.3	22.6	23.2	Q1		
Range	44-117	28-112	22-109	17-111	30-117	31-100	18-107	15-102	25-113	14-113	22-97	29-94	27-116	26-97	8-110	17-93	4-117	18-99	8-114	14-91	7-99	20-96	9-95	21-94	13-83	5-104	14-81	12-102	6-113	11-91	5-105	16-94	2-78	3-93	2-104	Range		

*Distributions of less than fifteen cases were excluded.

TABLE XII
 DISTRIBUTIONS OF SCORES MADE ON ORIENTATION TEST, FORM B, BY SECOND-
 YEAR STUDENTS OF ACCOUNTING IN EIGHT COLLEGES

	2	84	80	65	8	36	34	55	
128-130									128-130
124									124
120									120
116				1					116
112	1	1							112
108		1		1					108
104	3		1		1				104
100	4	2				2			100
96	1	1			1	1			96
92	2	2		1		1			92
88	4	4	1	1		1			88
84	3	4			1	1	1	1	84
80	1	6	1	1		1			80
76	1	9				1	2	1	76
72	2	9	3	2		1	2		72
68	1	5		4	1	2	1		68
64	5	4	1	3	1	2	2		64
60		7	1	2	1	3	3		60
56	2	2			1	4	2		56
52	2	3	2		1	2	2	3	52
48			2				2		48
44		1				3	1	1	44
40	1			2	1	1		2	40
36						3	2	1	36
32									32
28				1	1	2	1		28
24									24
20									20
16									16
12									12
8									8
4									4
0-3									0-3
Total	33	61	12	19	10	31	21	9	Total
Q3	99.0	79.8		81.0		77.0	71.0		Q3
Md	86.0	71.8	70.0	69.5	64.0	60.7	60.7	52.7	Md
Q1	66.6	66.3		63.5		46.3	50.5		Q1
Range	42-113	44-115	49-105	31-119	29-104	29-102	29-86	36-85	Range

*Distributions of less than five cases were excluded.

TABLE XIII

DISTRIBUTIONS OF SCORES MADE ON ORIENTATION TEST, FORM B, BY SENIORS IN ACCOUNTING IN TEN COLLEGES

	44	21	76	19	78	64	32	45	24	82		
128-130											128-130	
124											124	
120		1									120	
116											116	
112		5									112	
108	1	1				1	1	1			108	
104		3			1	1					104	
100	3	3	1			2		2			100	
96	2	2	2	1	2	2		2			96	
92	2	2		2	2	2		2			92	
88	---	6	---	1	4	---	---	4	---	2	---	88
84	3	3		2	1	3	1	2			84	
80	1	5	3		1	4		2	1	3	80	
76	---	6	---	1	4	---	---	6	---	2	---	76
72	1	3		3	3	1	2	2	1	1	72	
68		1			1	5	1	3	1	2	68	
64	1	1	1		3	3		1	1	2	64	
60	---	1	---	1	2	---	2	5	---	1	---	60
56		1				4		2	2	3	56	
52	1	1		2		1	1	6	1	1	52	
48				1				5		1	48	
44		2				2		2	1	4	44	
40								1		1	40	
36										3	36	
32									1	1	32	
28										3	28	
24										2	24	
20										1	20	
16										1	16	
12										1	12	
8											8	
4										1	4	
0-3											0-3	
Total	15	47	8	14	24	37	8	48	14	34	Total	
Q3	100.3	101.7			91.0	87.7		86.0		67.0	Q3	
Md	93.0	87.3	82.7	82.0	79.0	74.0	72.0	70.7	68.0	47.0	Md	
Q1	83.0	77.2			72.0	63.0		54.7		31.3	Q1	
Range	54-108	44-120	65-101	48-97	62-104	45-110	54-108	43-109	33-88	5-88	Range	

*Distributions of less than five cases were excluded.

TABLE XIV

DISTRIBUTIONS OF SCORES MADE ON ORIENTATION TEST, FORM A, BY FIRST-YEAR STUDENTS OF ACCOUNTING IN FOUR COLLEGES

	11	71	10	89	
128-130					128-130
124					124
120					120
116					116
112	1	1			112
108	1	1			108
104	1	1			104
100	1				100
96	3	4	3		96
92	2	5	1		92
88	1	4	4		88
84	3	6	7	1	84
80	3	12	5		80
76	5	5	5		76
72	7	6	16	2	72
68	9	20	12	2	68
64	16	23	17	2	64
60	22	19	17		60
56	16	26	18	1	56
52	9	33	30		52
48	13	19	48	1	48
44	11	20	46	2	44
40	7	23	46	2	40
36	5	18	45	5	36
32	7	14	44	6	32
28	7	8	39	5	28
24	1	9	25	9	24
20		6	14	5	20
16		1	13	4	16
12		1	2	1	12
8		1	1	4	8
4				1	4
0-3				1	0-3
Total	151	286	458	54	Total
Q3	67.8	66.9	54.7	39.6	Q3
Md	59.9	54.8	44.0	29.6	Md
Q1	47.9	42.3	33.9	22.0	Q1
Range	27-113	10-112	11-99	2-86	Range

IV

THE FUTURE OF THE COLLEGE ACCOUNTING TESTING PROGRAM

Evidence of growing interest in the College Accounting Testing Program is shown by the number of participating colleges in the fall and spring testing during the last two-year period. The number of colleges taking part was as follows:

Fall, 1946	29
Spring, 1947	57
Fall, 1947	50
Spring, 1948	99

A total of approximately 78,000 tests were administered to accounting students during this period.

From the beginning of the project until June, 1948, major emphasis was on test construction and validation and on research. As a result of contributions from accounting firms and the American Institute of Accountants, money was available for support of this phase of the project. Since the tests were experimental and since norms were being developed for them, it seemed desirable to encourage college participation by making the test materials available without charge. The fact that the experimental work with objective tests in the accounting field had been subsidized by voluntary contributions made it financially feasible to follow the procedure of distributing the test materials free of charge and of making only a nominal charge for scoring services.

By June, 1948, the larger share of the experimental and research work in test development had been completed. It was realized that new forms of the Orientation and Achievement Tests would have to be constructed and validated at intervals, but it was felt that a satisfactory general pattern for these tests had been evolved.

At the same time, it became evident that the fund created by the accounting firms and the Institute for research and test development would soon be exhausted, and that sources of additional income would need to be sought or the project abandoned. The Committee felt that it was not advisable to ask either the Institute or the firms for additional help — at least not until further evidence was available concerning the valuation placed upon the tests by the colleges and the firms that were potential users.

Since the testing program has now entered what is primarily a service phase and since continuing financial support is not otherwise available, it will be necessary for the service program to pay its own way. A certain amount remains from contributions received, and this fund will be used to pay part of the cost of the program during the next year or two. But in the fairly near future, the testing program must either become self-supporting or be given up.

There are three potential sources of income for the project, and it is believed that each of these should be drawn upon for a portion of the financial support, if the tests are regarded by the users themselves as sufficiently worthwhile to be continued. The three sources are (1) colleges using the tests in placement, guidance, and evaluation of individual students, (2) seniors graduating from accounting courses who will soon be seeking employment, and (3) public accounting firms and business and industrial organizations employing accountants in considerable numbers.

In the opinion of the Committee, the charge to employers for the use of the tests at the point of employment should be substantial. A plan is already in operation under which employers pay costs ranging from five dollars an individual for the use of the Orientation and Achievement Tests without scoring services to twelve dollars for test materials, scoring, and a complete report of the results of the Orientation Test, Achievement Test, and interest test. While fairly extensive use of the tests by employers may be anticipated in the immediate future, the Committee regards the program primarily a College Accounting Testing Program, and it is hoped that eventually nearly all graduates of accounting courses will have had the tests and will be able to carry with them to employers certified reports of the test results.

The Committee is especially desirous of encouraging the use of the tests for selection and guidance in colleges and, to that end, is keeping the charges as low as possible. The charge to colleges for the use of the Orientation Test and the Achievement Tests will be comparable to that for tests obtained from other publishers for use in guidance. The costs will be fifteen cents a student for the use of the test materials of each type. The scoring charge, ten cents a test, will be the same as it has been in the past. The charge for the Level II Achievement Test taken by graduating seniors will be larger, since the report of test results will include a certified report which the individual may show to prospective employers. The announcements of the fall and spring testing programs in the colleges for the academic year, 1948-49, will contain detailed information concerning procedures of handling the tests, including costs.

The future of the College Accounting Testing Program depends largely upon the success of the project office, the colleges, and employers in public accounting firms and in business and industry in developing cooperative arrangements which will make the tests of maximum value to all concerned and will place the project on a sound financial footing. The marked and growing interest in the tests on the part of both colleges and employers is favorable to the continuance of the program on a self-supporting basis.