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College accounting testing program bulletin no. 24; Results of the spring, 1955, college accounting testing program and supplementary studies, July, 1955

American Institute of Accountants. Committee on Accounting Personnel

THE AMERICAN INSTITUTE OF ACCOUNTANTS
COLLEGE ACCOUNTING TESTING PROGRAM

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Prepared by
Committee on Accounting Personnel
21 Audubon Avenue
New York 32, N. Y.

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Agricultural & Mechanical College of Texas
University of Akron
University of Alabama
American School of Business

Anderson College
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Walla Walla College
Walsh Institute of Accountancy
Washington and Lee University

State College of Washington
Wayne University
Westchester Commercial School
Western Michigan College
Westminster College

Wheaton College
Wilkes College
College of William and Mary
University of Wisconsin
University of Wyoming

One hundred and ninety colleges participated in the ninth spring College Accounting Testing Program which took place in April and May, 1955. This number was larger than that in any other program in this series except the one in 1950, in which 208 colleges took part. There was an increase of twenty-eight participating colleges, or about 17 per cent, as compared with the spring, 1954 program.

The kind and number of tests used in the spring of 1955 and in the four preceding spring testing programs are as follows:

Test	1955	1954	1953	1952	1951
Orientation Test	2,272	2,050	2,169	2,251	4,734
Achievement Test, Level I	7,182	4,925	5,580	5,713	6,916
Achievement Test, Level II	2,041	1,990	2,034	1,940	3,502
Strong Vocational Interest Blank	304	568	397	516	1,113
Total	11,799	9,533	10,180	10,420	16,265

It will be seen that the total number of tests given by the 190 participating colleges, 11,799, is considerably larger than the number in each of the last three spring programs but smaller than the number in the spring of 1951. There was an increase of 2,266 tests, or approximately 24 per cent, over the spring of 1954. The increase was particularly large for Achievement Test, Level I.

For the tests used in the current program, the percentage distribution among the different kinds of tests was as follows: Orientation Test, 19.3 per cent; Achievement Test, Level I, 60.9 per cent; Achievement Test, Level II, 17.3 per cent; Strong Vocational Interest Blank, 2.6 per cent.

The types of colleges taking part in this spring's program and the number and per cent of the colleges of each type were as follows:

Type of College	Number	Per Cent
Liberal Arts Colleges	91	47.9
Schools of Business in Universities	52	27.4
Teachers Colleges	7	3.7
Technical Colleges	15	7.9
Junior Colleges	10	5.3
Business Schools	15	7.9

Approximately three-fourths of the institutions in the participating group were universities or liberal arts colleges.

The colleges taking part in the program were distributed throughout the country. The following numbers of colleges in the different geographical regions were program participants: New England, 16; Middle Atlantic States, 49; North Central Region, 64; South, 35; West, 24; Canada, 1; and Mexico, 1. In comparison with the spring of 1954, the largest increase in participating institutions was in the North Central Region. Forty-three states were represented in the program. Pennsylvania with twenty-three participating colleges accounted for the largest number; New York was second with nineteen colleges; and Michigan was third with twelve. Ten institutions in Illinois, ten in California, and from six to nine in a number of the other states participated.

SUMMARY OF TEST RESULTS

The results of the spring, 1955, College Accounting Testing Program are shown in the form of distributions of scores of individuals and of college medians in Tables I through VIII. These tabulations are designed to serve as a basis for comparing the test results from one program to another and to enable individual colleges to compare their medians with those of other participating institutions.[1]

For the reader who is not familiar with the general form of the tables, a few explanatory comments may be helpful. The median score for this spring's program is indicated graphically by a short, horizontal line just to the right of each distribution column, and the range of the middle 50 per cent of the scores is shown by the line perpendicular to the median line. The broken line extending across each column represents the median of the group upon which the current norms are based. Summary statistics, including the number of participants, the range of scores, and the scores corresponding to the median, quartile points, and tenth and ninetieth percentiles are reported at the bottom of each table.

Some comments on the various test results are given in the following sections. It will be noted that a distinction is made between the results of the "required" and "voluntary" testings. The term "required" is used to refer to student groups in which all class members took the tests on a required basis or in which at least 90 per cent of the students participated on a voluntary basis. "Voluntary" groups are those in which less than 90 per cent of the students took the tests.

Achievement Test, Level I.- It is noteworthy that the substantial increase (46 per cent) in the number of students taking the Level I Achievement Test this spring is accompanied by a general rise in the median scores on this test. At each level of study - first, second, and third years - both required and voluntary groups have median scores that exceed those of the corresponding groups in the 1953 spring program, as will be seen from Tables I and II. Where the test was taken on a required basis, the largest gains over last year's medians were registered by the second-year students, while the voluntary groups show the largest increase in median score at the first-year level. For both groups of participants, the second-year medians are distinctly higher than those at the first-year level, but there is relatively little difference between the second- and third-year medians.

Since a selective factor is apt to play a role when students are permitted to take the accounting tests on a voluntary basis, the results of such testings are not included in the program norms. It might be expected that the better-qualified students would be the ones who would elect to take the examinations. There is some evidence of this in the scores at the first-year level, where the median for the voluntary group is about 12 raw score points above that of the required group. However, the difference is very slight at the second-year level, and it is actually in favor of the required group for the third year of study.

While it is informative to make comparisons on the basis of median scores, the large amount of variability reflected by the distribution of scores at each level of study should not be overlooked. In most cases, the scores extend over the greater part of the total possible range. Many students at the first-year level have scores above the third-year median, while a number of individuals who are classified as third-year students rank below the first-year median.

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[1]Any participating college may obtain, on request, a confidential copy of this bulletin marked to show the placement of its medians in the distributions.

Achievement Test, Level II.- The results of the Achievement Test, Level II, Form A (four-hour form) and of Form D (two-hour form) are shown in Tables III and IV. The Level II test is recommended for use at the senior level, but some colleges administer it to second and third year students.

It will be observed from Table III that the medians for the seniors who took Form A are just slightly above the norm group median, which is based on the results of the combined spring programs of 1949, 1951, and 1953. On Form D, at the senior level, the medians for the required group are somewhat below the medians for the combined spring programs of 1952, 1953, and 1954, while the medians of the voluntary participants are above these norm medians.

The distributions for the combined second and third year classes that were tested with the Level II Achievement Test are given in Table IV. The medians of these groups on Form D are considerably below those of the seniors, whose results were mentioned in connection with the discussion of Table III. In comparison with the norm median based on the three preceding spring programs, the medians of the required group this year are slightly higher, but the students in the voluntary group fall below this norm level in median score.

Orientation Test.- Orientation Test results for first-year students are shown in Tables V and VI, and those for second-year students are given in Tables VII and VIII. It will be noted from Table V that the students in the required group at the first-year level have median scores on all three scales that very closely approximate the norm medians, which are based on the scores of students tested in the past three combined spring programs. Likewise, the medians of the students in the voluntary participation group are quite close to the norm medians. The medians for the latter group on all three scales of the Orientation Test are just slightly above those of this year's required group.

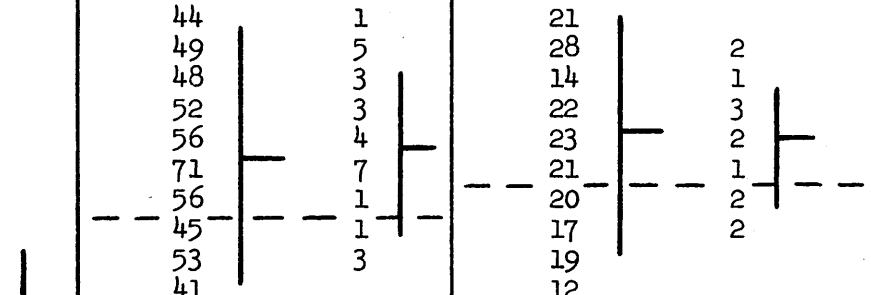
The group of second-year students in the required testing classification is just about at the norm median on the verbal scale, but it is a few points below the norm medians on the quantitative and total scales. Where the Orientation Test was taken on a voluntary basis, the medians of the individual scores of second-year students tested this spring are noticeably above the norm medians on each of the three scales.

In general, the results based on required testing — that is, where at least 90 per cent of the students in the classes took the tests — show an increase in the median accounting achievement level of students at the first, second, and third-year levels. The medians of the seniors who were tested this year on a required basis were above the established norm on Form A of the Level II Achievement Test, but below the norm level on the shorter form, Form D. As the Orientation Test results are quite similar to those obtained in the past three combined spring programs, with respect to required testing, there is no indication of a change in the aptitude level of accounting students who take part in the Institute's testing programs. The differences between the results of required and voluntary testings are not large, but they tend to be in favor of the groups of voluntary participants on most of the tests.

TABLE I

DISTRIBUTIONS OF SCORES AND COLLEGE MEDIANS ON ACHIEVEMENT TEST, LEVEL I, FORM B, IN CLASSES WHERE THE TEST WAS REQUIRED OR WHERE 90 PER CENT OF THE STUDENTS, OR MORE, TOOK IT ON A VOLUNTARY BASIS

	FIRST YEAR		SECOND YEAR		THIRD YEAR	
Score	Scores of Individuals	Medians of Colleges	Scores of Individuals	Medians of Colleges	Scores of Individuals	Medians of Colleges
177-178						
176						
172			1		1	
168						
164			1		2	
160			3		1	
156	4		6		5	
152	3		4		2	
148	7		6		2	
144	7		15		1	
140	25		10		3	
136	21		21		10	
132	31		21		8	
128	38		24		6	
124	59		27		13	
120	71		40	1	12	
116	93		44	1	21	
112	119		49	5	28	2
108	156		48	3	14	1
104	172	3	52	3	22	3
100	236	4	56	4	23	2
96	235	3	71	7	21	1
92	230	5	56	1	20	2
88	270	4	45	1	17	2
84	283	12	53	3	19	
80	307	13	41		12	
76	322	10	42	2	10	1
72	276	7	30	1	13	1
68	286	9	22	1	11	
64	257	7	27	1	4	
60	232	6	16	1	6	
56	215	4	22		6	
52	233	1	13		4	
48	194	2	7		3	
44	183	4	5			
40	166	2	8		3	
36	134		1		1	
32	119	1	7		1	
28	66		2			
24	62		4		1	
20	40		1		2	
16	34		2			
12	18					
8	21					
4	12					
0-3	7					
Total	5244	97	903	35	328	15
Q3	95.4	86.3	115.8	109.7	117.0	107.0
Md	76.8	78.2	98.7	99.7	101.7	101.0
Q1	56.4	66.4	81.6	87.7	85.1	91.5
Range	0-158	34.0-107.0	19-172	62.0-121.0	21-174	73.3-114.5
10 %ile	40.3	54.8	64.3	74.0	68.7	78.0
90 %ile	110.8	96.4	131.6	114.8	133.1	113.0



----Medians, spring program, 1953

TABLE II

DISTRIBUTIONS OF SCORES AND COLLEGE MEDIANS ON ACHIEVEMENT TEST, LEVEL I, FORM B, IN CLASSES WHERE LESS THAN 90 PER CENT OF THE STUDENTS VOLUNTARILY TOOK THE TEST

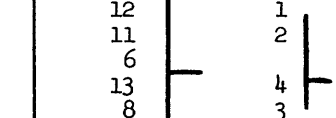
	FIRST YEAR		SECOND YEAR		THIRD YEAR	
Score	Scores of Individuals	Medians of Colleges	Scores of Individuals	Medians of Colleges	Scores of Individuals	Medians of Colleges
177-178						
176						
172						
168						
164						
160					1	
156	2		7			
152	1					
148						
144	3		2		2	
140	4		2		2	
136	2		5		2	
132	4		7		3	1
128	6		4	1		
124	8		5	1		
120	16	1	3		2	1
116	15		5		1	
112	13		6		1	
108	22	1	8	3	2	
104	24		6		2	
100	21	1	4	1	2	
96	22	2	6	1	2	
92	25	1	8	1	2	1
88	21	4	4		2	
84	22	2	6		4	1
80	26	2	5		2	
76	22		5	1	1	
72	18	1	3		1	
68	18		4			
64	16	1	2	1	1	
60	14	2	1		2	
56	16		6	1		
52	11		2		2	
48	13		4		1	
44	8		1		2	
40	4		3			
36	5		3			
32	1					
28	3					
24			1			
20	1		1			
16	1		1			
12						
8						
4	1					
0-3						
Total	409	18	130	11	42	4
Q3	107.0	97.0	123.3		123.0	
Md	88.9	89.0	99.3	102.0	98.0	
Q1	69.8	81.0	76.4		81.0	
Range	7-158	60.0-121.0	15-159	58.0-130.0	44-161	86.0-133.0
10 %ile	53.4	63.6	51.0		54.4	
90 %ile	121.3	108.8	138.4		141.6	

----Medians, spring program, 1953

TABLE III

DISTRIBUTIONS OF SCORES OF SENIOR ACCOUNTING STUDENTS AND MEDIAN SCORES OF SENIOR CLASSES ON ACHIEVEMENT TEST, LEVEL II, FORMS D AND A

	FORM D REQUIRED*		FORM D VOLUNTARY^{x}		FORM A REQUIRED*		
Score	Scores of Individuals	Medians of Colleges	Scores of Individuals	Medians of Colleges	Score	Scores of Individuals	Medians of Colleges
100	1				150		
98	2				147		
96	6		2		144	1	
94	6				141		
92	5		2		138	1	
90	19		7		135	3	
88	13		3		132	5	
86	15		7		129	10	
84	19		8		126	6	
82	27		6		123	9	1
80	19		8		120	7	
78	41	1	11		117	10	
76	24		7	2	114	10	
74	24		7	1	111	9	
72	49	1	12		108	11	
70	36	3	3		105	14	1
68	30		12	1	102	12	3
66	41	4	11	2	99	12	1
64	26		6		96	20	3
62	34	3	13	4	93	25	3
60	45	4	8	3	90	16	
58	37	4	8		87	11	1
56	25	1	4		84	8	
54	51	3	13		81	10	1
52	28		5		78	18	1
50	30	7	3		75	11	1
48	33		7		72	14	2
46	44	3	2		69	11	1
44	33	2	5		66	8	
42	33	1	5	1	63	7	2
40	34	3	6	1	60	9	
38	39	1	9	1	57	7	
36	24		2		54	3	
34	23		4		51	6	
32	24	2	6		48	6	
30	24	1	1		45	7	
28	12		3		42	6	
26	28		3		39		
24	15		1		36	5	
22	13				33	3	
20	9		1		30	1	
18	16	3	1		27		
16	13		1		24	1	
14	11		1		21		
12	14				18		
10	9		1		15		
8	10				12		
6	8		1		9		
4	3				6		
2	3				3		
0-1	2				0-2		
Total	1130	47	226	16	Total	333	21
Q3	71.3	62.2	77.3	68.0	Q3	107.7	101.3
Md	55.2	54.3	63.8	63.0	Md	92.7	94.5
Q1	39.1	44.8	49.0	60.7	Q1	72.7	75.8
Range	0-100	18.0-79.0	7-96	39.0-77.7	Range	26-146	63.0-124.5
10 %ile	24.3	32.7	35.3	41.2	10 %ile	53.2	69.3
90 %ile	82.0	70.2	85.6	76.4	90 %ile	123.6	104.9



----Median, combined spring programs, 1952, 1953, 1954

----Median, combined spring programs, 1949, 1951, 1953

*Colleges testing on required basis plus classes in which 90 per cent or more of the students voluntarily took test

xColleges having classes in which less than 90 per cent took test

DISTRIBUTIONS OF SCORES AND COLLEGE MEDIANS OF COMBINED SECOND AND THIRD YEAR CLASSES ON ACHIEVEMENT TEST, LEVEL II, FORM D

Score	REQUIRED* Scores of Individuals	REQUIRED* Medians of Colleges	VOLUNTARYx Scores of Individuals	VOLUNTARYx Medians of Colleges
100				
98	1			
96				
94				
92				
90	1			
88	1			
86	1			
84	2		1	
82	2			
80	1			
78	3		1	
76	1		1	
74			2	
72	1			
70	2			
68	4		2	
66	4		1	
64	3			
62	4		2	
60	6		1	
58	6	1		
56	5	1	3	
54	4		1	
52	6		2	
50	7	1	2	
48	3	2	2	
46	1	1		
44	6	1	4	
42	9		1	
40	10	1		
38	5	2	2	
36	7	1	1	1
34	4	1	2	
32	9	1	2	1
30	7		1	
28	5	1	3	1
26	3		2	1
24	3		1	1
22	2		1	
20	3		3	
18	4		1	
16	4		4	
14	2		1	
12	2		4	
10	5		2	
8	5			
6			2	
4				
2			1	
0-1	3		1	
Total	167	14	60	5
Q3	58.4		54.0	
Md	42.1	43.0	35.0	29.0
Q1	30.2		18.0	
Range	0-98	29.0-58.0	0-84	24.0-37.0
10 %ile	15.7		12.0	
90 %ile	69.7		69.0	

----Median, combined spring programs, 1952, 1953, 1954

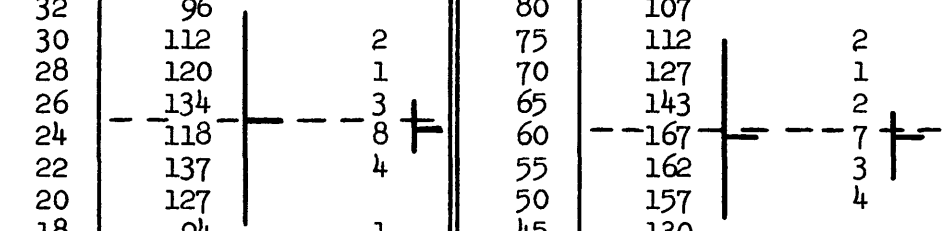
*Colleges testing on required basis plus classes in which 90 per cent or more of the students voluntarily took the test

xColleges having classes in which less than 90 per cent of the students took the test

TABLE V

DISTRIBUTIONS OF SCORES AND COLLEGE MEDIANS ON ORIENTATION TEST, FORM A, IN FIRST YEAR CLASSES WHERE THE TEST WAS REQUIRED OR WHERE 90 PER CENT OR MORE TOOK IT ON A VOLUNTARY BASIS

VERBAL			QUANTITATIVE			TOTAL		
Score	Scores of Individuals	Medians of Colleges	Score	Scores of Individuals	Medians of Colleges	Score	Scores of Individuals	Medians of Colleges
99-100								
96						160		
93						155		
90			60			150		
87			58	2		145		
84	2		56	2		140		
81	2		54	8		135	1	
78	7		52	9		130	3	
75	6		50	9		125	3	
72	9		48	11		120	3	
69	9		46	24		115	12	
66	12		44	20		110	12	
63	32		42	31		105	23	
60	35		40	49		100	24	
57	47		38	59		95	34	
54	55		36	55		90	40	
51	64		34	65		85	73	
48	66		32	96		80	107	
45	101	1	30	112	2	75	112	2
42	116	2	28	120	1	70	127	1
39	147	3	26	134	3	65	143	2
36	138	6	24	118	8	60	167	7
33	146	2	22	137	4	55	162	3
30	116	1	20	127		50	157	4
27	153	3	18	94	1	45	130	
24	106	2	16	96		40	108	
21	96		14	58		35	78	1
18	76		12	62	1	30	49	
15	52		10	51		25	39	
12	26		8	36		20	20	
9	14		6	28		15	13	
6	13		4	18		10	7	
3	4		2	7		5	5	
0-2	4		0-1	16		0-4	2	
Total	1654	20	Total	1654	20	Total	1654	20
Q3	46.0	40.0	Q3	32.6	26.7	Q3	76.5	65.0
Md	36.5	37.0	Md	25.6	25.0	Md	61.7	61.4
Q1	27.4	30.0	Q1	18.9	23.5	Q1	48.6	55.0
Range	0-86	24.5-45.0	Range	0-58	12.7-31.2	Range	4-139	36.7-76.4
10 %ile	20.1	27.0	10 %ile	12.3	21.0	10 %ile	36.9	51.3
90 %ile	56.8	43.5	90 %ile	40.0	30.0	90 %ile	89.3	75.0



----Medians, combined spring programs, 1952, 1953, 1954

TABLE VI

DISTRIBUTIONS OF SCORES AND COLLEGE MEDIANS ON ORIENTATION TEST, FORM A, IN FIRST YEAR CLASSES WHERE LESS THAN 90 PER CENT OF THE STUDENTS VOLUNTARILY TOOK THE TEST

VERBAL			QUANTITATIVE			TOTAL		
Score	Scores of Individuals	Medians of Colleges	Score	Scores of Individuals	Medians of Colleges	Score	Scores of Individuals	Medians of Colleges
99-100								
96						160		
93						155		
90			60			150		
87			58			145		
84	2		56			140		
81			54	1		135		
78	3		52			130	1	
75	5		50	1		125	2	
72			48	3		120	2	
69	3		46	5		115	1	
66	2		44	2		110	1	
63	7		42	3		105	3	
60	7		40	3		100	9	
57	4		38	7		95	7	
54	6		36	12		90	6	
51	12		34	16	1	85	13	1
48	12	2	32	10		80	9	
45	14		30	10	1	75	13	
42	13	1	28	18		70	23	3
39	10	1	26	14	3	65	18	1
36	19	2	24	15		60	17	2
33	15	1	22	17	1	55	14	
30	7	1	20	13		50	18	1
27	17		18	9	2	45	7	
24	16		16	11		40	13	
21	6	1	14	10	1	35	5	
18	5		12	2		30	3	1
15	5		10	5		25	7	
12	5		8			20	3	
9	2		6	4		15	3	
6			4	1		10		
3	1		2	2		5	1	
0-2	1		0-1	5		0-4		
Total	199	9	Total	199	9	Total	199	9
Q3	51.3		Q3	34.4		Q3	82.4	
Md	39.2	38.3	Md	26.8	26.3	Md	67.4	67.5
Q1	28.5		Q1	20.1		Q1	52.2	
Range	1-85	22.0-50.3	Range	0-55	14.7-35.2	Range	7-131	30.0-85.0
10 %ile	21.5		10 %ile	14.2		10 %ile	37.9	
90 %ile	63.9		90 %ile	39.5		90 %ile	99.4	

----Medians, combined spring programs, 1952, 1953, 1954

TABLE VII

DISTRIBUTIONS OF SCORES AND COLLEGE MEDIANS ON ORIENTATION TEST, FORM A, IN SECOND YEAR CLASSES WHERE THE TEST WAS REQUIRED OR WHERE 90 PER CENT OR MORE TOOK IT ON A VOLUNTARY BASIS

VERBAL			QUANTITATIVE			TOTAL		
Score	Scores of Individuals	Medians of Colleges	Score	Scores of Individuals	Medians of Colleges	Score	Scores of Individuals	Medians of Colleges
99-100								
96						160		
93						155		
90			60			150		
87			58			145		
84			56			140		
81	1		54	3		135		
78			52	2		130		
75	1		50	3		125	1	
72	3		48	1		120		
69	1		46	1		115	2	
66	1		44	1		110	1	
63	3		42	5		105	2	
60			40	3	1	100	5	
57	6		38	4		95		
54	7		36	5	1	90	6	
51	2		34	6		85	5	
48	12	1	32	9		80	16	1
45	13		30	15	2	75	10	2
42	14	2	28	13	2	70	14	1
39	11	3	26	9		65	13	2
36	9		24	7	3	60	13	3
33	12	3	22	9		55	14	
30	9		20	5		50	11	
27	11		18	8		45	7	
24	5		16	8		40	7	
21	5		14	5		35	6	
18	7		12	6		30	2	
15	2		10	2		25	1	
12	1		8	3		20	1	
9	1		6	2		15		
6			4	1		10		
3			2	1		5		
0-2			0-1			0-4		
Total	137	9	Total	137	9	Total	137	9
Q3	48.7		Q3	33.9		Q3	81.2	
Md	40.8	40.5	Md	28.4	29.5	Md	67.5	68.8
Q1	30.8		Q1	19.6		Q1	54.7	
Range	11-81	33.0-48.5	Range	3-54	24.7-41.0	Range	21-129	61.3-80.0
10 %ile	22.6		10 %ile	13.6		10 %ile	42.6	
90 %ile	58.2		90 %ile	42.9		90 %ile	92.8	

----Medians, combined spring programs, 1952, 1953, 1954

TABLE VIII

DISTRIBUTIONS OF SCORES AND COLLEGE MEDIANS ON ORIENTATION TEST, FORM A, IN SECOND YEAR CLASSES WHERE LESS THAN 90 PER CENT OF THE STUDENTS VOLUNTARILY TOOK THE TEST

VERBAL			QUANTITATIVE			TOTAL		
Score	Scores of Individuals	Medians of Colleges	Score	Scores of Individuals	Medians of Colleges	Score	Scores of Individuals	Medians of Colleges
99-100								
96						160		
93						155		
90			60			150		
87			58			145		
84			56			140		
81			54	2		135		
78			52	1		130		
75			50	1		125		
72			48	3		120		
69			46	2		115	1	
66	1		44			110	2	
63	2		42	2		105	2	
60	2		40	4	1	100	3	1
57	2	1	38	6	2	95	2	
54	5		36	3		90	3	
51	6		34	6	1	85	8	1
48	3		32	5	1	80	3	
45	3	1	30	2		75	7	2
42	3		28	1		70	6	1
39	1		26	1		65	1	
36	6	3	24	3		60	1	
33	2		22	2		55	1	
30	3		20	1		50	2	
27	2		18	2		45	4	
24	2		16			40	1	
21	2		14			35		
18			12			30		
15	2		10			25		
12			8			20		
9			6			15		
6			4			10		
3			2			5		
0-2			0-1			0-4		
Total	47	5	Total	47	5	Total	47	5
Q3	54.2		Q3	41.6		Q3	92.1	
Md	45.5	38.5	Md	36.3	38.5	Md	80.8	78.8
Q1	34.1		Q1	31.8		Q1	71.5	
Range	16-67	36.8-57.8	Range	19-55	33.0-41.0	Range	41-115	71.3-102.5
10 %ile	25.1		10 %ile	23.7		10 %ile	49.6	
90 %ile	60.5		90 %ile	49.5		90 %ile	105.8	

----Medians, combined spring programs, 1952, 1953, 1954

AN EVALUATION OF THE APTITUDE OF CERTAIN COLLEGE ACCOUNTING STUDENT GROUPS IN TERMS OF NORMS FOR COLLEGE STUDENTS IN GENERAL

by Robert D. North

As a means of appraising the caliber of students who are being attracted to the accounting profession, it is worth while to try to determine how accounting students compare with college students in general in terms of academic ability. Some information on this question may be obtained through the use of tables from which Orientation Test scores may be interpreted in terms of approximate percentiles for college freshmen on the American Council on Education Psychological Examination.[1]

In this brief study, the freshman Orientation Test medians of groups of students majoring in accounting at certain institutions are evaluated in terms of the medians for the national norm group of freshmen in general on the American Council examination. While it would be preferable to make the aptitude comparisons entirely at the college senior level, this cannot be done because aptitude test data for the general college population at the senior level are not available.

The data in this report are based on the test results of all colleges that administered the accounting Achievement Test to seniors in the 1953 and 1954 spring programs, and that also tested the same students in their first year of accounting study with the Orientation Test in the fall programs of 1949 and 1950. The number of students tested, the approximate A.C.E. Psychological Examination equivalent percentiles of the first-year Orientation Test medians, and the median percentiles on the Level II Achievement Test are shown below.

1953 Accounting Seniors

College Code No.	Number of Students	Approximate A.C.E. Exam. Equivalents of First-Year Orientation Test Medians			Median Percentile on Level II Achievement Test
		Verbal	Quant.	Total	
1	14	48	66	64	82
2	11	46	72	51	79
3	85	79	85	84	79
4	9	60	75	73	68
5	9	50	85	71	60
6	10	54	83	69	45
7	10	50	56	43	15

1954 Accounting Seniors

8	11	62	63	61	65
3	66	79	85	85	63
1	15	44	75	62	60
9	10	44	83	59	50
2	11	62	53	64	47
10	21	60	59	56	13
Median	11	54	75	64	60

[1]The project office gratefully acknowledges the cooperation of the following institutions in supplying the necessary data for establishing these tables: University of Arizona, Bowling Green State University, Drake University, Kent State University, University of Pittsburgh, and Virginia Polytechnic Institute.

The thirteen groups of students for which data are shown represent only ten colleges and universities, as three institutions are included in both the 1953 and 1954 classifications. The senior accounting students in these institutions, as a group, were evidently somewhat superior to those in the total group of institutions that participated in the 1953 and 1954 accounting testing programs at the senior level, since the median Achievement Test score of the thirteen groups was at the 60th percentile. Only four of the Achievement Test medians of the thirteen groups of students were below the 50th percentile.

It will be noted from the last row of the table that according to the A.C.E. Psychological Examination percentile equivalents of the median Orientation Test scores, the combined groups, as college freshmen, ranked at the 54th percentile in verbal ability, at the 75th percentile in quantitative ability, and at the 64th percentile on the total American Council examination scale. Thus, these accounting seniors, as a group, were a few points above the national norm in verbal ability, but they were distinctly superior in numerical ability.

With respect to the median scores of the thirteen groups, it will be seen that the nine groups that rated average or above on the accounting Achievement Test all ranked above the 60th percentile in numerical aptitude and above the 50th percentile on the A.C.E. examination total scale. Four of these nine groups fell somewhat below average in verbal aptitude, although none of these medians was below the 44th percentile.

Of the four groups that were below average on the Level II Achievement Test, none was below average in either verbal or quantitative aptitude, and only one (No. 7) was below the 50th percentile on the total scale of the A.C.E. Psychological Examination. This group had a median percentile of 43 on the A.C.E. total scale and a median percentile rank of 15 on the accounting Achievement Test.

In summary, this limited study involving 282 accounting seniors in ten colleges and universities indicates that these students, as a group, were fully as superior to the national median on the A.C.E. Psychological Examination total scale in their freshman year as they were, as seniors, to the median for accounting seniors on the Level II test. They were well above the average college freshman in numerical aptitude, and slightly above average in verbal aptitude, according to the A.C.E. Psychological Examination equivalents of their first-year Orientation Test medians.

The general conclusion suggested by this report is that college students who major in accounting and attain average-or-better scores on the Level II Achievement Test in the College Accounting Testing Program come from a freshman group that is superior in numerical aptitude and is at least up to the national average in general academic aptitude.

A NOTE ON THE CORRELATION OF THE HIGH SCHOOL ACCOUNTING ORIENTATION TEST WITH GRADES IN A HIGH SCHOOL BOOKKEEPING COURSE

by Arthur E. Traxler

After the college and professional accounting testing programs had been carried on for several years, it was decided to make available at the high school level a test somewhat similar to the college level Orientation Test. It was thought that such a test could serve as a screening device and as a basis for the guidance of high school seniors planning to major in accounting in college. Accordingly, a High School Accounting Orientation Test was prepared and was released for use starting in the fall of 1953. This test exists in two comparable forms--S and T--each of which calls for forty minutes of working time. Each form contains three parts: (1) the vocabulary of business, accounting, and finance; (2) arithmetic reasoning; and (3) accounting problems.

Previous studies have indicated that the Spearman-Brown reliability of the total score on the High School Accounting Orientation Test is approximately .90, that the correlation of the high school level test with the college level Orientation Test is in the neighborhood of .80, and that the correlations between this high school test and such measures of intelligence as the Otis Self-Administering Test of Mental Ability and the American Council on Education Psychological Examination fall within the range of .60 to .70. On the whole, these data are favorable to the test.

In March, 1955, the High School Accounting Orientation Test, Form S, was administered to thirty-six students in the second semester of second-year bookkeeping in a public high school.[1] The scores obtained by these pupils on the three parts of the test and their total scores were correlated with first semester grades and with grades on a bookkeeping test which the instructor of the class had given in order to help in determining the grades of these pupils for the first marking period of the second semester. It was necessary to use in the correlations grades which had already been assigned in order to avoid the possibility of obtaining spuriously high correlations through the influence of the results of the Orientation Test on the grades. The correlations are shown in Table IX.

TABLE IX

CORRELATIONS OF SCORES ON HIGH SCHOOL ACCOUNTING ORIENTATION TEST WITH GRADES IN SECOND-YEAR BOOKKEEPING FOR THIRTY-SIX STUDENTS

Orientation Test	First Semester Bookkeeping Grades		Current Bookkeeping Test	
	r	P.E.	r	P.E.
Part I	.46	± .09	.52	± .08
Part II	.59	± .07	.51	± .08
Part III	.49	± .09	.60	± .07
Total Score	.59	± .07	.64	± .07

[1]Appreciation is expressed for the cooperation of Mr. Chester F. Trost of the Washington High School in Milwaukee, Wisconsin, in supplying data for this report.

All the correlation coefficients shown in the table are positive and statistically significant in that they are more than four times their probable errors. The correlations are not especially high, but they seem as high as one would expect in view of the fact that the Orientation Test is designed to measure general ability in the field of accounting, whereas the grades are based upon specific learning, knowledge, and understanding of bookkeeping operations.

It may be of interest to compare these correlations with correlations between the college level Orientation and Achievement Test scores. The medians of the correlations between the college level Orientation Test and the Achievement Test, Level I, for first-year accounting students in fifteen colleges are as follows: verbal vs. Level I, .40; quantitative vs. Level I, .46; Orientation Test total vs. Level I, .48. It will be observed that, at least for this one class of high school pupils, the correlations of the High School Accounting Orientation Test with grades in bookkeeping and with scores on a bookkeeping test are higher than the medians of the correlations between the college level Orientation Test and Achievement Test scores obtained from college students.

It may be pointed out that extremely high correlations between the high school Orientation Test and bookkeeping grades would not be favorable to the usefulness of the test. If correlations of this kind approached unity, they would suggest that the test did not provide any counseling information that was not already obtainable from the school grades.

As soon as sufficient data are available, it will be desirable to study the value of the High School Accounting Orientation Test for predicting success in the study of accounting and in employment in accounting positions as compared with other predictive measures such as grades in high school bookkeeping.