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THE AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS
COLLEGE ACCOUNTING TESTING PROGRAM

Bulletin No. 33

RESULTS OF THE
SPRING, 1958, COLLEGE ACCOUNTING TESTING PROGRAM

*Including a Brief Research Report on the High School
Accounting Orientation Test*

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

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COLLEGE ACCOUNTING TESTING PROGRAM

Committee on Personnel Testing

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CONTENTS

	Page
COOPERATING INSTITUTIONS	1
INTRODUCTION	3
SUMMARY OF TEST RESULTS	5
THE RELATION BETWEEN SCORES ON THE HIGH SCHOOL ORIENTATION TEST AND GRADES IN HIGH SCHOOL BUSINESS AND ACCOUNTING COURSES . . .	15

INSTITUTIONS PARTICIPATING IN 1958 SPRING PROGRAM

Adelphi College	Eastern College of Commerce and Law
A & M College of Texas	Elizabethtown College
University of Akron	Estherville Junior College
Alabama State College (Florence)	Fairfield University
University of Alabama	Fenn College
Arkansas State College	Flint College
Ashland College	Flint Junior Community College
Assumption University of Windsor	Franklin and Marshall College
Aurora College	Gallaudet College
Austin Peay State College	Gannon College
Badger Green Bay Business College	Gates College
Ball State Teachers College	Georgia State College
University of Baltimore	Grand Rapids Junior College
Bay City Junior College	Gustavus Adolphus College
Bellarmino College	Hamilton College
Beloit College	Harding College
Bentley School of Accounting & Finance	Hastings College
Bethany Nazarene College	Heald's Business College
Bismarck Junior College	Heidelberg College
Bradley University	High Point College
Bridgewater College	Hillyer College
Brigham Young University	Hofstra College
Brooklyn College	College of the Holy Cross
Burdett College	University of Houston
Butte Business College	Humboldt State College
California College of Commerce	Husson College
University of California, Los Angeles	College of Idaho
Calvin College	Idaho State College
Canisius College	University of Illinois
Carroll College	Immaculata College
Catawba College	Indiana State Teachers College
Centenary College of Louisiana	Iona College
Central Michigan College	Iowa State Teachers College
Centre College of Kentucky	State University of Iowa
Chaffey College	Ithaca College
University of Chattanooga	Jackson Junior College
Clark College	University of Kansas City
Clarkson College of Technology	Kent State University
Clemson Agricultural College	Lamar State College of Technology
Colorado College	Lawrence College
Colorado State College	Lebanon Valley College
Colorado State University	Lee College
Concord College	Lehigh University
Dana College	Lincoln University
Davidson College	University of Louisville
University of Denver	Loyola College
De Paul University	Luther College
Detroit Institute of Technology	Manhattan College
University of Detroit	Marquette University
Dickinson College	University of Maryland
Drexel Institute of Technology	University of Massachusetts
Duquesne University	Merrimack College
Durham Business College (N.C.)	Mexico City College
Durham Business College (Texas)	Miami University
East Carolina College	University of Miami

Midland College	San Diego Junior College
Midwest Institute of Business Admin.	San Diego State College
Millikin University	City College of San Francisco
Milton College	University of San Francisco
University of Mississippi	University of Santa Clara
Mormouth College	University of Scranton
Moravian College	Seton Hall University
Muhlenberg College	Siena College
Muskingum College	Skagit Valley College
Nasson College	University of South Dakota
University of Nevada	Southern Illinois University
New York State Ag.-Tech. Institute	Southwestern Louisiana Institute
New York State Teachers College	Spencerian College
New York University	Spring Hill College
Niagara University	Stevens Business College
North Carolina College	Stevens Henager School of Business
University of North Carolina	Stonehill College
Northern State Teachers College	Strayer College of Accountancy
University of Omaha	Susquehanna University
Otero Junior College	Syracuse University
Pace College	Taft College
College of the Pacific	Tarkio College
Pacific Union College	Taylor University
Peirce School of Business Admin.	Temple University
Pennsylvania Military College	Texas College of Arts & Industries
University of Pennsylvania	Texas Christian University
Portland University	Texas Lutheran College
Providence College	Texas Technological College
Queens College	Union College
Regis College	Union Junior College
University of Rhode Island	Upper Iowa University
University of Richmond	Upsala College
Rider College	Virginia Junior College
Riverside City College	Virginia Polytechnic Institute
Rochester Institute of Technology	University of Virginia
University of Rochester	Vocational Technical Institute
Roosevelt University	of Southern Illinois University
Rutgers University Sch. of Bus. Admin.	Wake Forest College
Rutgers University, University College	Walla Walla College
St. Ambrose College	Walsh Institute of Accountancy
St. Francis College (N.Y.)	Washington & Lee University
St. Francis College (Pa.)	Wayne State University
St. John Fisher College	West Texas State College
St. John's College (Kansas)	West Virginia University
St. John's University (N.Y.)	Western Michigan University
St. Joseph's College	Wheaton College
St. Martin's College	College of William and Mary
St. Mary's College (Cal.)	Wilmington College
St. Mary's University (Texas)	University of Wisconsin - Milwaukee
St. Michael's College	Wisconsin State College
St. Norbert College	College of Wooster
St. Vincent College	University of Wyoming
Sam Houston State Teachers College	

INTRODUCTION

The twelfth annual spring College Accounting Testing Program, conducted in April and May of 1958, was the second-largest spring program in recent years. A total of 214 colleges and universities participated and administered 13,654 tests. The quantities of tests used and corresponding figures for the past four years are shown below.

	1958	1957	1956	1955	1954
Orientation Test	1,214	1,112	2,215	2,272	2,050
Achievement Test, Level I	9,559	8,660	10,424	7,182	4,925
Achievement Test, Level II	2,729	2,716	2,350	2,041	1,990
Strong Interest Blank	152	284	318	304	569
Total	13,654	12,772	15,307	11,799	9,534

In terms of the volume of tests administered, the program was about 7 per cent larger than that of 1957 and within 11 per cent of the size of the 1956 program. Most of the tests used this spring were the recommended forms, which were administered to regular accounting classes, but the total shown above also includes 575 tests that were administered for special purposes, such as candidate screening.

The Level I Achievement Test accounted for 70 per cent of the total volume. Of these, 5,061, or 53 per cent, were fifty-minute forms and 4,498, or 47 per cent, were two-hour forms. Approximately 20 per cent of the tests were Level II Achievement Tests, with the two-hour forms leading the four-hour forms by a ratio of about 3 to 1. Orientation Tests (9 per cent) and the Strong Vocational Interest Blank (1 per cent) comprised the balance of the volume. The tests were used in about the same proportions as in the 1957 spring program, except that the short form of the Level I tests proved to be more popular than the two-hour form this year.

With respect to the type of institutions participating, the 1958 spring program rather closely paralleled the pattern of the previous year. A slight decrease in the percentage of liberal arts colleges was offset by a proportional increase in the number of participating schools of business in universities, so that these two classifications combined again accounted for about 77 per cent of the total group. Business schools, junior colleges, technical colleges, and teachers colleges made up the other 23 per cent, as shown in the tabulation below.

Type of College	1958 Spring Program		1957 Spring Program	
	Number	Per Cent	Number	Per Cent
Liberal Arts Colleges	102	47.7	110	50.7
Schools of Business in Universities	62	29.0	58	26.7
Business Schools	17	7.9	17	7.8
Junior Colleges	15	7.0	12	5.5
Technical Colleges	11	5.1	14	6.5
Teachers Colleges	7	3.3	6	2.8
Total	214	100.0	217	100.0

All regions of the country were represented in the program again this spring, with the North Central region continuing to lead with about 30 per cent of the participating institutions. The regional distributions in the 1957 and 1958 spring programs are compared in the following table. In both programs, almost a fourth of the participating colleges were in the Middle Atlantic region, and almost as many were in the South. The West was next in order this spring, with approximately 15 per cent of the total, followed by New England with six and one-half per cent. Canada and Mexico were again represented by one college each.

<u>Region</u>	<u>1958 Spring Program</u>		<u>1957 Spring Program</u>	
	<u>Number</u>	<u>Per Cent</u>	<u>Number</u>	<u>Per Cent</u>
New England	14	6.5	15	6.9
Middle Atlantic	51	23.8	54	24.9
North Central	65	30.4	66	30.4
South	49	22.9	44	20.3
West	33	15.4	35	16.1
Canada	1	0.5	1	0.5
Mexico	1	0.5	1	0.5
Philippines	-	-	1	0.5
Total	214	100.0	217	100.0

Forty-three states were represented, which is the same number as a year ago. New York and Pennsylvania once more supplied the greatest number of participating institutions, with 21 and 20 colleges, respectively. The next five states in the order of the number of colleges represented were: California, 15; Michigan, 12; Texas, 11; Illinois and Wisconsin, 10 each.

The statistics of program participation as given in these bulletins are not always final totals, since some colleges occasionally return their tests to the Project Office too late to be included in the bulletin tabulations. By way of a summary of the 1957-58 College Accounting Testing Program, it might be mentioned that the final total of the number of tests administered in the fall and midyear programs was 12,294 tests, which, together with the total to date for the spring program, gives an over-all sum of 25,948 tests administered in the three programs of the year. This is just 3 per cent less than the comparable figure for the 1956-57 academic year.

Colleges may be interested in knowing that there are signs of increasing usage of the test results by public accounting firms, business and industrial organizations, and governmental agencies. During the past dozen years, a considerable amount of evidence of the validity of the tests has been compiled, both by the Project Office and by personnel officers in various firms, but the use of the test results for employee selection has been somewhat restricted because of the limited supply of job applicants in relation to the number of positions that were to be filled. Some employers are now finding that they are in a position to be more selective in their recruiting procedures, and they are consequently beginning to rely more heavily on tests as one of the bases for screening applicants. The testing Project Office is continuing its policy of making the college program results available to prospective employers upon authorization of the applicant concerned.

Colleges and universities participating in the testing program are invited to submit any suggestions they may have to offer regarding ways in which the tests or program might be made more valuable to them.

SUMMARY OF TEST RESULTS

Distributions of scores and college medians on the tests used in the 1958 spring program are shown in the tables on the following pages.¹ Norm medians based on test results from previous programs are also indicated to serve as a basis for comparison.

The statistics reported at the foot of each table give the number of participants, medians, and ranges of scores. The quartiles and 10th and 90th percentile points are also shown, except where there are less than fifteen frequencies in the distributions. Program medians are represented graphically by short, horizontal lines at the middle of the distribution columns, and the ranges of the middle half of the scores are marked by the vertical lines parallel to the distributions of frequencies.

A brief review of the test results follows:

Achievement Test, Level I, Form A-S. - As shown in Table I, the median score of the 4,006 first-year students in sixty-eight institutions on this test is about a point above the norm median that is based on the combined results of the 1956 and 1957 spring programs. The frequencies cover the complete range of possible scores. At the second-year level, the median score is just a little more than a point above the median of the first-year students, and it is about six points below the median of second-year students for the past two spring programs. In the distribution of medians of colleges, however, the median for the second-year group is fairly close to the norm median. Evidently the median of the scores of the individual students was pulled down by relatively low scores in a few of the participating institutions.

Achievement Test, Level I, Form A. - On the two-hour form of the Level I Achievement Test, the median score of the 3,442 first-year students tested on a "required" basis and that of the smaller group of students tested on a voluntary basis are slightly above the norm median (Table II). The results for the second- and third-year students tested this spring with this Achievement Test are quite favorable, since about two-thirds of both groups have scores above the norm medians (Table III).

Achievement Test, Level II, Forms B and D. - The Level II Achievement Test results for the second- and third-year groups are shown in Table IV in combined distributions, since relatively few students are tested at these intermediate levels. The median score of the 309 students who took Form D on a "required" basis is almost up to the norm median for the combined spring programs of 1954 through 1957. For the eighty-three second- and third-year students who took Form B of the Level II test, the median is substantially above the norm median. Almost three-fourths of the students in this small group have scores in the upper half of the norms.

In all, 2,176 seniors took the Level II Achievement Test this spring (Table V). The majority of them took Form D, a two-hour form, on a "required" basis. For these 1,397 seniors, the median score is about three and one-half

¹A participating institution may obtain a confidential copy of this bulletin marked to show the placement of its own medians in the distributions.

points below the norm median, based on the 1956 and 1957 spring programs. The smaller group of 184 seniors who took Form D on a voluntary basis have a median score which is very close to the norm median. On Form B, a four-hour form of the Level II Achievement Test, the median score of 595 seniors is slightly above the norm median.

Orientation Test, Form A. - While the Orientation Test is used predominantly in the fall program, a few colleges each year use this test in the spring. These aptitude test results for first-year students are reported in Tables VI and VII. In the case of the group of 578 students in eleven institutions who took the test on a "required" basis, the verbal, quantitative, and total score medians are consistently above the norm medians. Approximately two-thirds of the first-year students in this group have total scores above the norm median. The medians for the 154 first-year students in eight institutions where the test was administered on a voluntary basis are quite close to the norm medians on the verbal and total score scales, but on the quantitative scale the group median is two and one-half points above the norm median.

Summary. - The median scores for a total group of 7,448 first-year students on Forms A and A-S of the Level I Achievement Test this spring were slightly above the corresponding norm medians. Smaller groups of second- and third-year students who took the Level I test surpassed the norm medians on Form A of the test, while the Form A-S median for second-year students was substantially below the norm median. The program median for seniors on the Level II, Form D, Achievement Test is a few points below the norm median, while the Form B median for seniors is slightly above the norm median. At the second- and third-year levels, the Level II, Form D, median fell just below the norm median, but the Form B median for students at these intermediate grade levels was well above the norm median. Small groups of students who took the Level I and Level II Achievement Tests on a voluntary basis had medians that were quite close to the corresponding norm medians. Orientation Test results for a group of 578 first-year students indicated that this group was somewhat superior to the corresponding groups tested in the past three spring programs. Overall, the accounting test results in colleges this spring are not very different from those obtained in the spring programs of 1956 and 1957.

TABLE I

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

Score	FIRST YEAR		SECOND YEAR	
	Scores of Individuals	Medians of Colleges	Scores of Individuals	Medians of Colleges
60	8		1	
58	11		4	
56	30		10	
54	42		14	
52	69		27	
50	73		24	
48	145	1	39	2
46	135		23	1
44	195		41	2
42	215	2	22	2
40	266	3	33	2
38	215	5	27	
36	282	12	35	1
34	228	8	26	1
32	261	8	32	
30	240	6	30	1
28	253	9	38	2
26	198	1	29	1
24	208	7	29	1
22	146	2	26	
20	184	2	27	1
18	131	1	21	1
16	115		16	
14	92	1	15	
12	102		18	
10	46		10	
8	51		10	
6	19		6	
4	19		3	
2	14		2	
0-1	13		2	
Total	4006	68	640	18
Q3	41.4	37.0	45.1	44.5
Md	33.3	33.3	34.5	39.0
Q1	24.7	28.7	24.3	28.5
Range	0-60	15.5-48.2	0-60	19.7-48.4
10 %ile	16.8	24.2	15.7	21.6
90 %ile	47.7	39.7	51.3	48.2

----Median, combined spring programs, 1956, 1957

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

Score	FIRST YEAR		SECOND YEAR		THIRD YEAR	
	Scores of Individuals	Medians of Colleges	Scores of Individuals	Medians of Colleges	Scores of Individuals	Medians of Colleges
120						
117						
114	1		1			
111	1		2			
108			2			
105	2		7		3	
102	8		8		2	
99	12		9		4	
96	12		9		5	
93	22		28	1	5	
90	26		27		8	
87	28		21	1	4	
84	61		34		10	1
81	66		29	1	9	
78	76		30	3	5	1
75	109	2	36	4	10	1
72	127		35	6	7	2
69	151	2	40	1	8	1
66	161	2	31	1	8	1
63	200	4	30		6	
60	211	5	33	1	3	
57	208	8	24		6	
54	229	10	25	3	5	
51	231	7	12		2	
48	205	8	13	2	1	
45	195	5	14		4	
42	193	5	12			
39	182	4	7		3	
36	134	2	3			
33	123		4		1	
30	114	1	4			
27	80	1	4			
24	80	1			1	
21	57		2			
18	37		1			
15	30					
12	22		1			
9	14					
6	14					
3	8					
0-2	12					
Total	3442	67	538	24	120	7
Q3	66.0	59.3	85.2	78.0	87.8	
Md	53.9	53.8	72.8	74.0	76.5	74.3
Q1	41.2	46.7	60.8	64.5	65.0	
Range	0-116	25.5-75.0	13-115	49.5-93.0	24-107	66.0-85.9
10 %ile	29.6	40.3	48.4	54.4	54.0	
90 %ile	77.2	65.5	94.3	82.8	97.2	

----Median, combined spring programs, 1954, 1956, 1957

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

Score	Scores of Individuals	Medians of Colleges
120		
117		
114		
111		
108		
105	1	
102	1	
99	2	
96	2	
93	1	
90	3	
87	2	
84	5	
81	8	
78	6	
75	10	
72	9	1
69	11	1
66	12	
63	14	
60	10	1
57	12	1
54	14	
51	18	4
48	16	1
45	10	
42	17	1
39	9	
36	11	
33	12	
30	7	
27	6	
24	6	
21	5	
18	7	
15	2	
12	1	
9		
6		
3	1	
0-2	1	
Total	252	10
Q3	68.5	
Md	53.5	53.3
Q1	40.3	
Range	2-106	42.4-74.3
10 %ile	28.1	
90 %ile	80.9	

---Median, combined spring programs, 1952, 1954, 1956

TABLE IV

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

Score	FORM D REQUIRED*		Score	FORM B REQUIRED*	
	Scores of Individuals	Medians of Colleges		Scores of Individuals	Medians of Colleges
100			150		
98			147		
96			144		
94			141		
92	1		138		
90	1		135		
88	2		132		
86	2		129		
84	4		126		
82	2		123		
80	1		120	3	
78	3		117		
76	3		114		
74	5		111	1	
72	9		108	1	
70	3		105	1	
68	1		102	5	
66	7		99	1	
64	5		96	2	
62	12		93	7	
60	14	1	90	3	
58	7	2	87	1	
56	10	1	84	4	2
54	12	1	81	6	
52	9	2	78	12	1
50	3		75	5	1
48	7		72	3	1
46	10	3	69		
44	8	1	66	1	
42	13		63	4	
40	16	2	60	3	
38	10	2	57	5	1
36	9	1	54	3	
34	13	2	51	3	
32	13	2	48	4	
30	11	1	45	1	
28	16	1	42	1	
26	7		39	1	
24	8		36		
22	5		33		
20	10		30	1	
18	3	1	27	1	
16	5		24		
14	7		21		
12	5		18		
10	6		15		
8	1		12		
6	4		9		
4	3		6		
2	1		3		
0-1	2		0-2		
Total	309	23	Total	83	6
Q3	59.4	53.3	Q3	93.1	
Md	41.9	41.5	Md	79.4	78.0
Q1	29.3	34.8	Q1	60.8	
Range	0-93	19.5-61.0	Range	27-122	57.0-85.5
10 %ile	16.8	30.6	10 %ile	50.5	
90 %ile	72.5	58.7	90 %ile	103.6	

----Median, combined spring
programs, 1954 through 1957

----Median, combined spring
programs, 1950 through 1957

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

DISTRIBUTIONS OF SCORES AND COLLEGE MEDIANS ON ACHIEVEMENT TEST,
 LEVEL II, FORMS D AND B, IN SENIOR CLASSES

Score	FORM D REQUIRED*		FORM D VOLUNTARY ^x		Score	FORM B REQUIRED*	
	Scores of Individuals	Medians of Colleges	Scores of Individuals	Medians of Colleges		Scores of Individuals	Medians of Colleges
100	1				150		
98					147		
96	5		1		144	1	
94	6		1		141		
92	3		1		138		
90	18		1		135	2	
88	19		3		132	1	
86	18		4	1	129	1	
84	30		3		126	3	
82	23		5		123	1	
80	25		3		120	3	
78	55	1	3		117	5	
76	28	2	1		114	12	
74	39		4		111	6	
72	46	2	5		108	15	
70	43	1	5		105	17	
68	33		5	2	102	20	
66	47	3	7		99	36	1
64	39		12	1	96	34	
62	54	2	6	1	93	28	4
60	64		14	3	90	35	3
58	45	2	6		87	41	3
56	46	4	9	1	84	38	4
54	62	8	5	1	81	46	3
52	47	4	2	1	78	42	1
50	49	5	8		75	24	1
48	62	6	10		72	24	1
46	32	4	5	1	69	22	2
44	40	2	6		66	26	2
42	55		8	1	63	24	1
40	23	1	1		60	21	
38	38	1	4		57	12	
36	31	1	3		54	13	
34	36	1	3		51	11	
32	28		5		48	6	
30	39	2	9		45	6	
28	27	1	3		42	5	
26	19		4		39	6	
24	16				36	2	
22	14		3		33	1	
20	14		3		30	1	
18	17		1		27	2	
16	11	1			24	2	
14	11				21		
12	10		1		18		
10	7				15		
8	4		1		12		
6	4				9		
4	2				6		
2	4				3		
0-1	8				0-2		
Total	1397	54	184	13	Total	595	26
Q3	70.5	57.8	67.7		Q3	96.7	91.5
Md	54.6	53.0	57.6	61.0	Md	84.1	85.5
Q1	40.8	47.8	43.3		Q1	70.5	76.5
Range	0-100	17.0-79.0	9-97	43.8-86.3	Range	26-145	63.3-99.4
10 %ile	27.9	36.8	30.5		10 %ile	58.1	68.4
90 %ile	80.7	71.2	82.2		90 %ile	106.3	94.8

---Median, combined spring programs, 1956, 1957

 ---Median, combined spring
 programs, 1954, 1956, 1957

 *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 VI

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	1					155		
90			60	1		150		
87			58	1		145		
84	1		56	1		140	1	
81			54	5		135		
78	1		52	8		130	1	
75	2		50	1		125	1	
72	4		48	6		120	2	
69	9		46	18		115	7	
66	8		44	15		110	6	
63	10		42	20		105	10	
60	16		40	18		100	20	
57	28		38	32		95	29	
54	23		36	28		90	25	
51	33		34	41		85	43	
48	40	1	32	41	1	80	41	
45	39		30	37	1	75	43	2
42	56	2	28	44	1	70	61	2
39	58	3	26	43	3	65	64	2
36	49		24	44	2	60	52	
33	38	2	22	41	1	55	47	2
30	48		20	33	1	50	34	
27	43		18	26		45	37	1
24	20	1	16	12		40	18	1
21	13	2	14	17		35	8	
18	11		12	12	1	30	6	1
15	9		10	7		25	7	
12	7		8	13		20	7	
9	9		6	2		15	4	
6	1		4	4		10	2	
3	1		2	2		5	2	
0-2			0-1	5		0-4		
Total	578	11	Total	578	11	Total	578	11
Q3	50.4		Q3	37.7		Q3	85.1	
Md	41.1	39.5	Md	29.3	26.3	Md	70.1	66.3
Q1	31.9		Q1	22.6		Q1	57.1	
Range	4-94	21.0-48.4	Range	0-60	12.5-33.8	Range	5-142	32.5-77.4
10 %ile	25.0		10 %ile	15.5		10 %ile	45.5	
90 %ile	59.4		90 %ile	43.8		90 %ile	98.3	

---Medians, combined spring programs, 1955, 1956, 1957

TABLE VII

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

Score	VERBAL		Score	QUANTITATIVE		Score	TOTAL	
	Scores of Individuals	Medians of Colleges		Scores of Individuals	Medians of Colleges		Scores of Individuals	Medians of Colleges
99-100								
96						160		
93						155		
90			60			150		
87			58			145		
84	2		56			140		
81	1		54	1		135		
78	1		52	2		130	2	
75			50	6		125	1	
72	2		48	3		120	2	
69	1		46	2		115	1	
66			44	5		110	3	
63	3		42	4		105	2	
60	6		40	5		100	3	
57	4		38	7	1	95	6	
54	3		36	9		90	5	
51	4	1	34	5	1	85	4	
48	8		32	12	2	80	6	1
45	10		30	10		75	13	1
42	12	1	28	9		70	13	
39	8	2	26	5		65	13	1
36	16		24	12	1	60	18	2
33	10	1	22	7		55	14	
30	14	2	20	12	1	50	9	2
27	11		18	9	2	45	14	
24	12		16	5		40	11	1
21	17	1	14	11		35	11	
18	4		12	9		30	1	
15	3		10	2		25	1	
12	1		8	1		20		
9			6			15	1	
6	1		4			10		
3			2	1		5		
0-2			0-1			0-4		
Total	154	8	Total	154	8	Total	154	8
Q3	47.0		Q3	37.2		Q3	78.7	
Md	36.8	37.5	Md	28.7	29.0	Md	64.2	62.5
Q1	27.1		Q1	20.1		Q1	49.8	
Range	6-86	23.5-52.5	Range	3-54	19.0-39.0	Range	16-134	41.3-82.5
10 %ile	22.1		10 %ile	14.4		10 %ile	40.6	
90 %ile	60.3		90 %ile	45.4		90 %ile	98.8	

---Medians, combined spring programs, 1955, 1956, 1957

THE RELATION BETWEEN SCORES ON THE HIGH SCHOOL ORIENTATION TEST
AND GRADES IN HIGH SCHOOL BUSINESS AND ACCOUNTING COURSES

By

Robert D. North

In a program sponsored by the Committee on Cooperation with Educational Institutions of the Kansas Society of Certified Public Accountants, the High School Orientation Test was administered to 1,266 pupils in twenty-nine Kansas high schools this spring. The test results will be used by the high school counselors in their guidance work with the pupils, and by the Project Office in its continuing research studies on the test. One phase of this research, involving correlations between the test scores and certain business course grades has just been completed, and the results are reported in this article.

Validity data for the High School Orientation Test are difficult to obtain, since the process of collecting criterion information about the later success of the individuals in college accounting study and professional practice requires time-consuming follow-up studies in widespread geographical regions. The relation between the test scores and high school course grades may give some indication of the significance of the scores, however. If the Orientation Test is actually a measure of aptitude for learning in the accounting area, then it is to be expected that the scores would have a higher correlation with grades in high school accounting courses than with grades in other high school business courses.

Relatively few high schools offer courses in accounting, but three of the schools that participated in the Kansas program this spring do so. The correlation between the total scores on the High School Orientation Test, Form S, and grades in these courses is shown in Table VIII. The correlations of the scores with grades in bookkeeping, shorthand, and business arithmetic courses are also given in the table to serve as a basis for comparison. In each instance, final grades for the fall semester courses were used, so there is no possibility that the test scores influenced the teachers' grading decisions.

TABLE VIII

CORRELATIONS BETWEEN TOTAL SCORES ON HIGH SCHOOL ORIENTATION TEST, FORM S,
AND GRADES IN CERTAIN HIGH SCHOOL COURSES

Course	Grade Level	Number of Schools	Number of Pupils	<u>r</u>
Accounting	11-12	3	63	.73
Bookkeeping	10-12	5	383	.48
Shorthand	11-12	1	61	.39
Business Arithmetic	10-12	4	318	.30

It will be observed from the table that the correlation between the Orientation Test total scores and the accounting grades for the group of sixty-three pupils in three schools is .73. The size of this correlation coefficient indicates that there is a very substantial relation between the test scores and the accounting grades. The correlations between the test scores and the grades in bookkeeping, shorthand, and business arithmetic courses are in the range of .30 to .48. While these correlations are high enough to indicate that there is a significant degree of relationship between the scores and the grades, they

are substantially lower than the correlations obtained for the accounting course grades. Evidently the type of aptitude measured by the High School Orientation Test is more directly related to success in the study of accounting than to success in bookkeeping, shorthand, and business arithmetic courses.

Since the class grades used in this analysis were based on courses taken before the Orientation Test was administered, the question might be raised as to whether the test might reflect knowledge of accounting principles, rather than aptitude for learning accounting. The test was, of course, designed to be an aptitude measure, and the items presumably can be answered by students who have not had any formal training in accounting. The distribution of scores for the various groups of pupils in the Kansas high schools tends to support this presumption. Some pupils who had taken only the bookkeeping or shorthand courses obtained Orientation Test scores in the top tenth of the norms, ranging up to a percentile rating of 98. Among the pupils who had taken a semester of accounting, the percentiles ranged from 1 to 100, while the pupils who had been enrolled in business arithmetic courses had percentiles in the range of 1 to 86.

The extent of relation between the percentile ratings on the Orientation Test and the accounting course grades for the group of sixty-three pupils is depicted in Table IX. The percentile ratings are based on norms for high school seniors, since this is the only level of norms that is available for the test. More than 90 per cent of the pupils in the Kansas accounting group were seniors. As will be seen from the table, thirteen of the sixteen pupils who had received A's in the accounting course had percentile ratings in the top quarter of the Orientation Test norms. No student who had received an accounting grade of A ranked in the lower half of the test norms. On the other hand, all seven pupils who had grades of D in the accounting course had aptitude test percentile ratings below 50. Eleven, or almost half of the students who had received B in the accounting course, had Orientation Test percentile ratings in the range of 50 to 74. The majority of the C students--eleven out of sixteen--had aptitude percentile ratings in the range of 25 to 74. No student whose Orientation Test total score fell in the lowest quarter of the norms had received an accounting course grade above C.

TABLE IX

RELATION BETWEEN PERCENTILE RATINGS ON HIGH SCHOOL ORIENTATION TEST, FORM S,
AND ACCOUNTING COURSE GRADES IN THREE HIGH SCHOOLS

Orientation Test Percentile Rating	N	Semester Grade in Accounting Course			
		D	C	B	A
75-100	23		2	8	13
50-74	20		6	11	3
25-49	14	4	5	5	
0-24	6	3	3		
Total	63	7	16	24	16

In summary, this brief analysis of data obtained from a group of Kansas high schools this spring shows that there is a substantial relation between the High School Orientation Test scores and grades in accounting courses taken by the pupils a semester earlier. The relation between the test scores and grades in bookkeeping, shorthand, and business arithmetic courses is somewhat lower, but statistically significant. These findings indicate that the High School Orientation Test is an appropriate measure of ability to learn accounting, in so far as high school accounting course grades may be regarded as a suitable criterion, and that the test may also have some utility as a measure of aptitude in other business areas.