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# THE AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS COLLEGE ACCOUNTING TESTING PROGRAM

Bulletin No. 30

# RESULTS OF THE SPRING, 1957, COLLEGE ACCOUNTING TESTING PROGRAM AND SUPPLEMENTARY STUDIES

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

July, 1957

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## INSTITUTIONS PARTICIPATING IN 1957 SPRING PROGRAM

Academy of Accountancy Adams State College A & M College of Texas University of Akron Alabama State College at Florence

University of Alabama American Institute of Business Anderson College Aquinas College Argubright College of Business Admin.

Arizona State College Arkansas State College Ashland College Assumption University of Windsor Austin Junior College

Austin Peay State College Ball State Teachers College University of Baltimore Bellarmine College Bentley School of Accounting & Finance

Berea College Bethany Nazarene College Bluefield College Briar Cliff College Bridgewater College

Brooklyn College Bryant College Buena Vista College Burdett College Butler University

University of California, Los Angeles Calvin College Canisius College Catawba College Central Michigan College

Central Missouri State College Chaffey College Charleston School of Commerce, Inc. University of Chattanooga Chico State College

Clarkson College of Technology Clemson Agricultural College Cloverland Commercial College Colorado A & M College Colorado College

Colorado State College of Education Dana College Davidson College University of Delaware University of Denver

De Paul University University of Detroit Dickinson College Drake University Drexel Institute of Technology Duff's Iron City Business Institute East Carolina College Elizabethtown College Estherville Junior College Evansville College

Fairfield University Fairleigh Dickinson University Fenn College Flint Junior College Florida Southern College

Gallaudet College Gannon College Georgia State College Golden State College Goshen College

Hanover College Harding College Heald's Business College Heidelberg College Henry Ford Community College

Hillyer College Hofstra College College of the Holy Cross Hope College University of Houston

Husson College College of Idaho Idaho State College University of Illinois Immaculata College

Iona College State University of Iowa Ithaca College Jackson Junior College Jamestown College

University of Kansas City Kent State University University of Kentucky Lamar State College of Technology La Salle College

La Verne College Lawrence College Lebanon Valley College Lee College Lehigh University

LeMoyne College University of Louisville Loyola College (Md.) Loyola University of Los Angeles Luther College

Lycoming College University of Maine Manhattan College Mankato State Teachers College Marquette University University of Maryland University of Massachusetts Merrimack College Mexico City College University of Michigan

Midwest Institute of Business Admin. Millikin University Mississippi State College University of Mississippi Moravian College

Morris Harvey College Mountain State Commercial College Muhlenberg College Muskingum College Nasson College

University of Nevada New York State Ag.-Tech. Institute New York State Teachers College Niagara University Northern Michigan College

Oberlin College Ohio Institute of Business Otero Junior College Otterbein College Pace College

College of the Pacific Pacific Lutheran College Pacific Union College Parsons College Peirce School of Business Admin.

Pennsylvania Military College University of Pennsylvania Portland University Providence College Queens College

Randolph-Macon College Regis College (Colorado) Regis College (Mass.) University of Rhode Island Rider College

Rochester Institute of Technology University of Rochester Roosevelt University Rutgers University, Sch. of Bus. Admin. Rutgers University, University College

St. Ambrose College
St. Bonaventure University
St. Francis College (N. Y.)
St. Francis College (Penna.)
St. John Fisher College
St. Joseph's College (Ind.)
St. Joseph's College (Penna.)
St. Martin's College

St. Mary's College (Calif.)

St. Mary's University (Texas) St. Michael's College St. Norbert College St. Vincent College Sam Houston State Teachers College San Diego State College City College of San Francisco San Francisco State College University of San Francisco University of Scranton Seton Hall University Shasta College Siena College Silliman University Skagit Valley Junior College University of South Dakota Southern Illinois University Vocational Technical Institute of Southern Illinois University Southwestern Louisiana Institute Spring Hill College Strayer College of Accountancy Susquehanna University Syracuse University Taft College Temple University Texas College of Arts & Industries Texas Christian University Texas Western College Tri-State College Union College Union Junior College Villa Madonna College Villanova University Virginia Junior College Virginia Polytechnic Institute University of Virginia Wake Forest College Walla Walla College Walsh Institute of Accountancy Washington and Lee University State College of Washington Wayne State University West Texas State College Westchester Business School Western Michigan University Wheaton College Wilkes College College of William and Mary Wisconsin State College University of Wisconsin (Madison) University of Wisconsin (Milwaukee)

College of Wooster

University of Wyoming

#### INTRODUCTION

In the eleventh spring College Accounting Testing Program, which took place in April and May, 1957, the number of participating colleges was 217, which was two colleges less than in the spring of 1956 and twenty-seven more than in the spring of 1955.

The numbers of tests used this spring as compared with the five preceding spring programs were as follows:

Test	<u>1957</u>	1956	1955	<u>1954</u>	1953	1952
Orientation Test Achievement Test, Level I Achievement Test, Level II Strong Interest Blank	1,112 8,660 2,716 284	2,215 10,424 2,350 318	2,272 7,182 2,041 304	2,050 4,925 1,990 569	2,169 5,580 2,034 397	2,251 5,713 1,940 1,113
Total	12,772	15,307	11,799	9,533	10,180	10,420

The total number of tests used in the spring of 1957 was 2,535 less than the number in 1956 and 973 more than in 1955. The decrease in number of tests used this spring as compared with last spring may be due to the fact that the charge for Project Office scoring and reporting was increased from 35 to 50 cents per test this year. It is interesting to note that while the use of the Orientation Test, the Level I Achievement Test, and the Strong blank was smaller in the spring of 1957 than it was a year ago, the use of Achievement Test, Level II, was somewhat larger than in 1956 and the preceding spring program. The increased use of the Level II test may reflect the present great interest which employers have in college seniors and the need for upto-date information on the attainment of graduating seniors. It probably also reflects, to some extent, increased size of greduating classes.

The percentage distribution among the tests used in the spring, 1957 program was as follows: Orientation Test, 8.7 per cent; Level I Achievement Test, 67.8 per cent; Level II Achievement Test, 21.3 per cent; and Strong Vocational Interest Blank, 2.2 per cent. The two-hour form of the Level I test accounted for 36.5 per cent of the total, and the fifty-minute form for 31.3 per cent.

The following tabulation shows the number of each kind of college participating in this spring's program and the per cent of the total number of participants which this number represents.

Type of College	Number	Per Cent
Liberal Arts Colleges	110	50.7
Schools of Business in Universities	58	26.7
Teachers Colleges	6	2.8
Technical Colleges	14	6.4
Junior Colleges	12	5.5
Business Schools	17	7.8

There has been little change in the percentages for the different kinds of participating institutions during the last several spring programs. More than three-fourths of the colleges taking part continue to be either liberal arts colleges or universities. As in preceding spring programs, the participating colleges are spread over a wide geographical area. The distribution according to region is as follows:

Number	Per Cent
15	6.9
54	24.9
66	30.4
44	20.3
35	16.1
1	0.5
1	0.5
1	0.5
	<u>Number</u> 54 66 44 35 1 1 1

Forty-three of the forty-eight states were represented by one or more participating colleges. Pennsylvania again stood first with twenty-three participating colleges, and New York State with twenty-one colleges again had the second-largest number. Other states with ten or more participating colleges were: California, sixteen; Michigan, fifteen; and Texas, ten.

In contrast to the spring program, there were small increases in the fall and midyear programs during this school year, as reported in Bulletins 28 and 29. The total number of tests serviced by the Project Office for colleges during the three programs was 26,270, as compared with 27,962 last year. The decrease in number of tests administered was 1,692, or approximately six per cent. It is believed that, in view of the rise in service charge, participation in the College Accounting Testing Program during this academic year compared as favorably as could be expected with earlier participation, and that increased use may be anticipated when colleges have had an opportunity to adjust their testing budgets to the increased charge which was necessitated by the general rise in costs for personnel and materials needed to carry on testing services. The tables on the following pages contain the distributions of scores and college medians for the various tests that were recommended for use in the 1957 spring program.<sup>1</sup> At the bottom of each distribution column are statistics on the number of participants, range of scores, medians, quartiles, and the 10th and 90th percentile points.

The program medians are indicated graphically by short, horizontal lines, and the norm medians, based on the results of previous programs, are represented by the broken lines extending across the distribution columns. The ranges of the middle 50 per cent of the scores in this program are marked by the vertical lines.

Where there are a sufficient number of cases, the results of tests administered on a voluntary participation basis are shown separately. For purposes of classification, a test is considered to have been administered on a voluntary participation basis when less than 90 per cent of the students in a given class took the test.

An overview of the test results is given in the paragraphs below.

Achievement Test, Level I.- Form A-S, a fifty-minute form of the I-A test, was introduced in the 1956 spring program and was used for the second time this spring. The results for first- and second-year students are shown in Table I. At the first-year level, the 1957 median for the group of 3,557 students is two and one-half raw score points above the 1956 median. The median for the 340 second-year students is not quite a point above the corresponding median of last spring. At both levels, the scores extend over the complete range of sixty points.

On the two-hour Form A of the Level I Achievement Test, the median score for 3,166 first-year students tested this spring is almost two points above the norm median, which is based on the combined results of the spring programs of 1952, 1954, and 1956. The medians for the smaller groups of second- and third-year students are somewhat less favorable, falling below the corresponding norm medians by a fraction of a point at the second-year level and by about four and a half points at the third-year level. These results are shown in Table II. In ten colleges, the Level I, Form A, test was administered to a total group of 252 first-year students on a voluntary participation basis. As will be seen from Table III, approximately two-thirds of these students have scores above the norm median.

The reprinted edition of the I-A test that was used this spring incorporated some changes in terminology and dates, which were made to bring the test up to date. The format of Part IV was also revised in this edition, with a view to improving its readability. Evidently these modifications did not have any pronounced effect on the test results this spring, as compared with previous years, judging from the relative standing of the medians of the groups tested on a required participation basis.

<sup>1</sup>A participating institution may obtain a confidential copy of this bulletin marked to show the placement of its own medians in the distributions. The scores of the 374 students at the second- and third-year levels who took Form D of the Level II Achievement Test on a required participation basis are widely distributed, and the group median is about a point and a half below the norm median for the combined spring programs of 1952 through 1956. The median of the small group of sixty-seven students at the same grade level who took the test on a voluntary participation basis is substantially higher than that of the group tested on a required participation basis, and about three-quarters of the voluntary participants rank above the norm median (Table IV).

The results for seniors on the Level II Achievement Tests are shown in Table V. On both the two-hour Form D and the four-hour Form B, the medians of the senior groups that were tested on a required participation basis are quite close to the norm medians. The group of 125 seniors tested with Form D on a voluntary participation basis has a median score which is about four and one-half points above the norm median.

Orientation Test. - Although the Achievement Tests are stressed in the spring program, the Orientation Test is also offered for use when a measure of aptitude is desired. This spring, Form A of the Orientation Test was administered to a sufficient number of first-year students to justify the preparation of distribution tables as shown in Tables VI and VII. In the case of the 562 students tested on a required participation basis, the verbal median is about equal to the norm median, which is based on the combined results of the spring programs of 1954-56. The quantitative median of this group is almost three points above the corresponding norm median, and the total score median exceeds the norm median by about three and one-half points. The medians for the group of 155 first-year students tested on a voluntary participation basis are within a point or two of those of the required participation group.

Summary.- In the main, the 1957 spring program medians for the groups tested on a required participation basis are quite close to the norm medians derived from the results of spring programs of recent years. In relation to these norm medians, there are differences in favor of the first-year groups this spring on both the fifty-minute and two-hour forms of the Level I test and on the quantitative and total score scales of the Orientation Test. The medians for the third-year group on the I-A test and the median for the combined second- and third-year group on the two-hour form of the Level II test are somewhat below the corresponding norm medians. With respect to the groups tested on a voluntary participation basis, the median of the first-year group on the I-A test and the median of the combined second- and third-year group on the II-D test are substantially above the corresponding norm medians. The Orientation Test medians for the first-year voluntary participants are just slightly above the norm medians, and they are not appreciably different from those of the group tested on a required participation basis.

#### 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 OF THE STUDENTS, OR MORE, TOOK IT ON A VOLUNTARY BASIS

	FIRST	YEAR	SECO	ND YEAR
Score	Scores of Individuals	Medians of Colleges	Scores of Individual	Medians of s Colleges
60 56 56 50 50 50 50 50 50 50 50 50 50 50 50 50	$\begin{array}{c} 3\\ 4\\ 24\\ 26\\ 71\\ 79\\ 121\\ 128\\ 187\\ 184\\ 250\\ 192\\ 265\\ 205\\ 256\\194\\ 219\\ 165\\ 183\\ 146\\ 141\\ 115\\ 94\\ 85\\ 61\\ 50\\ 44\\ 31\\ 21\\ 6\\ 7\end{array}$	$ \begin{array}{c}                                     $	$ \begin{array}{c} 3\\2\\13\\16\\26\\11\\28\\21\\27\\15\\15\\19\\21\\15\\11\\13\\14\\6\\7\\8\\8\\6\\9\\4\\3\\2\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1$	2 2 1 1
Total	3557	55	340	8
Q3 Ma Q1	41.5 33.7 25.0	36.1 32.9 28.3	49.0 40.9 30.4	46.0
Range	0-60	17.0-41.7	0-60	28.0-49.8
10 %ile 90 %ile	17.1 47.6	24.2 38.5	19.8 54.0	

----Medians, spring program, 1956

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TABLE II

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 OF THE STUDENTS, OR MORE, TOOK IT ON A VOLUNTARY BASIS

	FIRST Scores of	YEAR Medians of	SECO Scores of	ND YEAR Medians of	THIRI Scores of	) YEAR Medians of	
120 117 114 110 102 99 99 99 99 99 99 99 99 99 99 99 99 99	$\begin{array}{c} 3\\ 6\\ 8\\ 8\\ 16\\ 28\\ 26\\ 45\\ 44\\ 61\\ 78\\ 100\\ 105\\ 127\\ 181\\ 166\\ 164\\ 195\\ 211\\190-\\ -\\ 188\\ 184\\ 164\\ 149\\ 155\\ 126\\ 100\\ 88\\ 61\\ 39\\ 38\\ 45\\ 25\\ 25\\ 7\\ 3\\ 7\end{array}$	$ \begin{array}{c c} 1 \\ 1 \\ 2 \\ 1 \\ 5 \\ 6 \\ 11 \\ 12 \\ - 5 \\ 8 \\ 3 \\ 4 \\ 1 \\ 1 \\ 1 \end{array} $	$ \begin{array}{c} 2\\ 2\\ 6\\ 12\\ 19\\ 26\\ 28\\ 36\\ 30\\ 28\\ 43\\ 51\\ 42\\ 43\\ 51\\ 45\\ 32\\ 45\\ 32\\ 45\\ 32\\ 45\\ 32\\ 10\\ 21\\ 26\\ 18\\ 12\\ 17\\ 10\\ 7\\ 25\\ 5\\ 1\\ 1\\ 1 \end{array} $		$ \begin{array}{c} 1\\ 6\\ 2\\ 2\\ 6\\ 9\\ 13\\ 9\\ 12\\ 11\\ 12\\ 6\\ 21\\ 10\\ 12\\ 20\\ 13\\ 15\\ 12\\ 8\\ 8\\ 6\\ 3\\ 4\\ 4\\ 3\\ 1\\ 1\\ 1\\ 1 \end{array} $		
Total Q3 Md Q1 Range	3166 66.7 53.8 40.5 0-110	73 59.4 54.6 47.0 27.0-82.5	784 80.5 67.4 52.3 10-109	27 74.4 67.1 56.6 46.5-87.0	278 83.0 65.9 51.8 8-112	9 64.5 51.0-84.8	Ϋ́ν.
10 %ile 90 %ile	29.3 78.2	39.3 64.6	39.1 91.8	48.7 83.0	40.8 94.4		-

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

#### TABLE III

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

Score	Scores of Individuals	Medians of Colleges
$\begin{array}{c} 120\\ 117\\ 114\\ 108\\ 105\\ 102\\ 996\\ 9390\\ 784\\ 81\\ 75\\ 7696\\ 630\\ 754\\ 518\\ 452\\ 936\\ 330\\ 274\\ 21\\ 8\\ 1512\\ 96\\ 3\\ 0-2\end{array}$	$ \begin{array}{c} 1\\ 2\\ 2\\ 3\\ 3\\ 3\\ 14\\ 14\\ 8\\ 24\\ 16\\ 16\\ 15\\ 17\\ 20\\ 17\\ 12\\ 12\\ 5\\ 3\\ 4\\ 3\\ 3\\ 4\\ 3\\ 4\\ 1 \end{array} $	
Total Q3 Md Q1 Banga	252 70.8 59.6 47.8 14-99	10 57.0
10 %ile 90 %ile	39.6 79.2	

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

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

	[	*		
	REQU	RED"	voun	VIARY-
Gaora	Scores of	Medians of	Scores of	Medians of
Score	Individuals	COTTARAR	Individuals	2 COTTERER
10888888888888888888888888888888888888	$ \begin{array}{c} 1\\ 1\\ 2\\ 1\\ 2\\ 1\\ 6\\ 2\\ 2\\ 7\\ 4\\ 10\\ 7\\ 7\\ 9\\ 11\\ 12\\ 14\\ 10\\ 8\\ 13\\ 12\\ 16\\ 11\\ 7\\ 16\\ 7\\ 9\\ 10\\ 8\\ 13\\ 12\\ 16\\ 11\\ 7\\ 16\\ 7\\ 9\\ 10\\ 14\\ 5\\ 7\\ 3\\ 4\\ 9\\ 1\\ 4\\ 9\\ 1\\ 4\\ 5\\ 7\\ 3\\ 4\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\$		1 1 2 7 1 1 3 2 3 2 1 4 5 3 5 2 3 1 4 3 1 2 1 1 2 1 1 2 3 2 3 2 3 5 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1	
Total Q3 Md Q1 Range 10 %ile 90 %ile	374 57.9 42.7 26.7 0-100 16.3 70.9	25 53.5 47.0 29.3 12.5-61.0 24.3 57.5	67 68.8 54.6 44.5 10-88 27.4 77.5	6 54.0 39.0-73.0

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

\*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 OF SENIOR CLASSES ON ACHIEVEMENT TEST, LEVEL II, FORMS D AND B

	FORM D REQ	UIRED <sup>*</sup>	FORM D V	OLUNTARY <sup>X</sup>		FORM B	REQUIRED*
Score	Scores of Individual	Medians of s Colleges	Scores of Individuals	Medians of Colleges	Score	Scores of Individual	Medians of s Colleges
10864898888888777778864888555558644988648986489864898648986	1 2 6 4 6 7 5 1 5 2 4 8 8 5 4 7 8 9 6 6 5 6 4 5 9 4 4 2 3 2 5 3 2 4 5 3 3 5 4 4 5 6 4 5 6 3 3 5 4 3 4 2 4 3 6 3 7 2 3 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	1 1 3 2 1 4 3 3 4 1 5 4 3 2 4 1 2 2 1 1 1 1 2 2 1 1 3 2 4 1 2 2 1 1 3 2 1 4 3 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 2 4 1 2 2 1 4 1 3 4 1 2 2 1 4 1 2 2 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	2 3 4 10 2 5 1 4 5 5 5 7 1 5 6 4 6 5 3 3 6 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2	1 2 2 1 1	1507441852963077418529639983987418529663655418529633074185129632 111110852963987418529663055418529633074185129632	2 1 3 10 6 15 19 11 7 7 19 1 25 11 43 936 35 27 42 30 25 23 16 16 13 12 11 6 6 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Total Q3 Md Q1	1291 71.7 57.4 41.7	57 65.4 55.8 45.6	125 77.5 62.6 49.1	8 61.0	Total Q3 Md Q1	609 95.9 82.0 67.8	28 87.0 82.5 76.5
Range 10 %ile 90 %ile	0-100 28.0 82.0	25.0-90.0 37.7 72.2	11-94 32.3 86.8	23.0-71.0	Range 10 %ile 90 %ile	23-134 55.3 109.7	63.0-100.5 67.8 96.6

----Medians, combined spring programs, 1954, 1955, 1956

----Median, combined spring programs, 1949, 1950, 1952, 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

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

VERBAL			QUANTITATIVE			TOTAL		
Score	Scores of Individuals	Medians of Colleges	Score	Scores of Individual	Medians of s Colleges	Score	Scores of Individuals	Medians of Colleges
99-100 99 96 99 97 84 81 87 77 76 96 63 60 77 4 18 5 12 96 3 20 3 20 4 1 18 5 12 9 6 3 20 0 - 20 10 10 10 10 10 10 10 10 10 10 10 10 10	$ \begin{array}{c} 1\\ 4\\ 7\\ 5\\ 9\\ 19\\ 12\\ 19\\ 35\\ 29\\ 32\\ 56\\ 51\\ 38\\ 24\\ 17\\ 9\\ 9\\ 6\\ 1 \end{array} $	2 1 3	60 56 56 52 58 64 42 08 64 42 08 64 20 86 42 20 86 42 20 86 42 20 86 42 20 86 42 20 86 42 20 86 42 20 86 42 20 86 42 20 86 44 20 86 42 20 86 42 20 86 44 20 86 42 20 86 86 86 42 20 86 86 86 86 86 86 86 86 86 86	$ \begin{array}{c} 1\\ 1\\ 3\\ 8\\ 5\\ 9\\ 12\\ 17\\ 16\\ 18\\ 34\\ 31\\ 42\\ 51\\ 49\\ 37\\ 39\\ 28\\ 11\\ 17\\ 7\\ 14\\ 7\\ 4\\ 4\\ 4\\ 6\end{array} $	1 1 - 1 5 1 1	$\begin{array}{c} 160\\ 155\\ 150\\ 145\\ 140\\ 135\\ 130\\ 125\\ 120\\ 115\\ 100\\ 95\\ 90\\ 85\\ 80\\ 75\\ 70\\ 65\\ 80\\ 75\\ 70\\ 65\\ 50\\ 45\\ 40\\ 35\\ 30\\ 25\\ 20\\ 15\\ 10\\ 5\\ -4\end{array}$	$ \begin{array}{c} 1\\ 2\\ 1\\ 3\\ 4\\ 6\\ 5\\ 13\\ 9\\ 16\\ 31\\ 38\\ 47\\ 51\\ 57\\ -55\\ 58\\ 35\\ 19\\ 24\\ 17\\ 6\\ 3\\ 19\\ 24\\ 17\\ 6\\ 3\\ 1\\ 3\end{array} $	1 1 1 1 1 3 1
Total	562	13	Total	562	13	Total	562	13
Q3 Md Q1	46.2 36.4 29.1	33.5	Q3 Ma Q1	35.1 28.4 22.0	26.6	Q3 Md Q1	78.8 65.3 52.8	58.1
Range	8-89	25.5-42.2	Range	0-58	13.0-34.0	Range	10-142	40.0-75.8
10 %ile 90 %ile	22.8 57.1		10 %ile 90 %ile	15.2 42.3		10 %ile 90 <b>%ile</b>	40.6 91.2	

#### TABLE VII

# 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			QUANTITATI	VE	TOTAL		
Score	Scores of Individuals	Medians of Colleges	Score	Scores of Individuals	Medians of Colleges	Score	Scores of Individual	Medians of s Colleges
99-100 96 93 90 87 84 81 75 72 96 63 60 55 44 52 96 33 07 24 18 52 96 30 7 24 18 52 96 30 7 24 18 52 96 30 7 24 18 52 96 30 87 84 81 7 7 29 66 30 87 84 81 7 7 29 66 30 7 7 2 9 66 30 7 7 2 9 6 6 30 7 7 2 9 6 6 30 7 2 9 6 33 30 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 2 2 2 2 2 2 2 2 2 2 3 3 3 3 2 2 2 2 2 2 2 2 2 3 3 3 2 2 2 2 2 2 2 2 3 3 3 3 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3 2 2 2 2 2 2 2 3 3 3 3 3 3 2 2 2 2 2 2 2 3	1 1 3 4 5 3 6 12 11 14 9 12 13 15 10 10 4 6 2 1	1 1 	60 56 56 50 56 50 56 50 56 50 50 50 50 50 50 50 50 50 50	1 1223 55856 13011 113 5512 6936 524 2		$\begin{array}{c} 160\\ 155\\ 150\\ 145\\ 140\\ 135\\ 120\\ 125\\ 120\\ 105\\ 100\\ 95\\ 90\\ 80\\ 77\\ 65\\ 60\\ 55\\ 50\\ 50\\ 45\\ 20\\ 5\\ 20\\ 5\\ 0-4 \end{array}$	$ \begin{array}{c} 1\\ 1\\ 5\\ 1\\ 9\\ 9\\ 14\\ 12\\ 11\\ 16\\ 13\\ 10\\ 12\\ 10\\ 4\\ 8\\ 3\\ 1\\ 4\\ \end{array} $	2
Total	155	10	Total	155	10	Total	155	10
Q3 Md Q1	47.3 37.1 28.2	37.0	ୟ3 Md. ୟୁ1	33.9 27.0 18.3	29.3	Q3 Ma Q1	80.4 63.9 48.6	70.0
Range	10-75	29.4-48.8	Range	0-56	14.0-38.5	Range	15-118	45.0-84.2
10 %ile 90 %ile	21.8 56.5		10 %ile 90 %ile	10.8 41.4		10 %ile 90 %ile	34.7 90.8	

----Medians, combined spring programs, 1954, 1955, 1956

BY

#### Robert D. North

The 1957 spring program marks eleven years of continuous operation of the Institute's College Accounting Testing Program. In this bulletin, as in the bulletins issued at the end of each of the other seasonal programs, the program medians have been compared with the latest available norm medians. To survey possible aptitude and achievement trends over the eleven-year period, some of the accumulated data are reviewed in this article.

Since the Orientation Test is most widely used with first-year students in the fall program, the results of such testing probably provide the best general indication of trends in the aptitude level of program participants from year to year. The percentile equivalents of the Orientation Test total score medians of first-year students are shown in Table VIII. Since more than one form of the test was used in some of the programs, the results of such programs are reported as weighted averages of the percentile equivalents of the form medians. For the 1952-1956 period, the current norm tables were used in determining the percentile equivalents of each of the program medians. It was necessary to use earlier norm tables for the 1946-1951 interval, since the test was scored by a different formula in those years. In each instance, however, only one norm table was used for each form of the test in either of the two spans of years.

#### TABLE VIII

PERCENTILE EQUIVALENTS OF ORIENTATION TEST TOTAL SCORE MEDIANS OF FIRST-YEAR ACCOUNTING STUDENTS TESTED IN FALL PROGRAMS, 1946-1956

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	Year	Number of Students	Number of Colleges	Test Forms	Percentile Equivalent of Program Medians*	
•						
	1946	8,746	30	Α	59	
	1947	16,320	45	A & B	50	
	1948	11,331	58	A & B	49	
	1949	10,328	67	A. B. & C	50	
	1950	9.120	74	A & B	43	
	1951	5.674	53	Ċ	45	
	1052	5,100	47	A & B	50	
	1053	6,031	<u>ji ji</u>	B	51	
	105	6 283	50	B	50	
	1994	7 786	55		50	
	1977	7,100	59	A D		
	1956	(,442	20	В	49	

\*Where more than one form of the test was used in a program, the percentile equivalents of the medians have been averaged.

As will be seen from inspection of Table VIII, the percentile equivalents of the medians during the 1946-1951 period ranged from a high of 59 for 1946 down to 43 for 1950. Apparently, the thirty colleges that cooperated with the Institute in starting the program in 1946 constituted a group of above-average caliber, in comparison with the group of participants of the five subsequent years. For the programs of 1947, 1948, 1949, and 1951, the percentiles fall in the narrow range of 45 to 50. This degree of stability in the program medians occurred in spite of the variation in the sizes of the participating groups from one program to another. The number of participants dropped substantially in the 1951 fall program, probably as a result of a fee increase which went into effect in that program. At the same time, Project Office scoring became mandatory. Prior to the fall of 1951, local scoring at the colleges was permitted.

Beginning with the 1952 fall program, the scores on the quantitative part of the test were doubled in order to increase their weighting in the total scores. Also beginning with the 1952 fall program, norms were based on only those groups that participated on a required basis; that is, results were excluded from the norms when less than 90 per cent of the students in a given class took the test. Between 1946 and 1951, the norms were based on results from all colleges, regardless of whether participation was required or voluntary, as long as the colleges described the tested groups as being representative of their accounting classes.

The percentiles corresponding to the medians for the fall programs of 1952 through 1956 are very similar, falling in the range of 49 to 51. Thus, there is no indication of any trend of change in the median aptitude level of the participants in the college program over this period of five years.

The Level I Achievement Test results for first-year accounting students in the spring programs of 1947 through 1957 are shown in Table IX, and the Level II Achievement Test results for seniors in the same programs are reported in Table X. In appraising these data, it should be noted that in the spring programs Project Office scoring became mandatory in 1952, and the restriction of the norms to results of tests administered on a required participation basis took effect in the same year. The reader's attention is also called to the fact that no results are reported for 1951, since Form C was used in the spring program that year only and there are no current spring norm tables for that form of the Level I test.

As in the case of the Orientation Test results, the highest median for the first-year students on the Level I Achievement Test was registered in the first year of the program. This Achievement median, corresponding to the 56th percentile on the current norms, is in line with the percentile of 59 for the Orientation Test program median of the fall of 1946. The groups that participated in the fall and spring programs of any single academic year were not identical, but there was sufficient communality to justify making a rough comparison of the aptitude and achievement test medians.

Year	Number of Students	Number of Colleges	Test Forms	Percentile Equivalent of Program Medians*
1947	4,071	36	A	56
1948	9,651	63	В	55
1949	6,740	84	A & B	49
1950	7,135	95	В	55
1951			-	
1952	3,615	72	Α	49
1953	3,832	74	В	48
1954	3,711	83	Α	49
1955	5,244	97	В	52
1956	3,038	65	Α	53
1957	3,166	73	Α	54

#### PERCENTILE EQUIVALENTS OF LEVEL I ACHIEVEMENT TEST MEDIANS OF FIRST-YEAR ACCOUNTING STUDENTS TESTED IN SPRING PROGRAMS, 1947-1957

Note: No data are shown for 1951, since Form C was used in that program, and there are no current fall norm tables for that form. \*Where more than one form of the test was used in a program, the percentile equivalents of the medians have been averaged.

#### TABLE X

PERCENTILE EQUIVALENTS OF LEVEL II ACHIEVEMENT TEST MEDIANS OF SENIORS TESTED IN SPRING PROGRAMS, 1947-1957

Year	Number of Students	Number of Colleges	Test Forms	Percentile Equivalent of Program Medians*
1947	649	25	A	52
1948	1,611	61	A & B	56
1949	3,641	85	A, B, & C	50
1950	4,417	130	B & D	49
1951	2,201	89	A & D	44
1952	1,428	62	B & D	50
1953	1,541	63	A & D	53
1954	1,451	69	B & D	53
1955	1,463	68	A & D	47
1956	1,621	79	B & D	51
1957	1,900	85	B & D	50

\*Where more than one form of the test was used in a program, the percentile equivalents of the medians have been averaged. Between 1948 and 1957 the Level I Achievement Test medians for the first-year students corresponded to percentiles in the range of 48 to 55. The medians rose steadily from 1953 to 1957. As noted above, the fall Orientation medians during this period showed little variability. Apparently, therefore, the college program results at the first-year level indicate some improvements in achievement during recent years, although the aptitude level of the students tested remains at a fairly constant level. It is worth stressing again, however, that the aptitude and achievement test medians are not based on exactly the same groups of participants.

The Level II Achievement Test median for seniors tested in 1947 corresponded to a percentile of 52 (Table X). The following year, the percentile for the senior median rose to 56, and then the percentiles dropped during the following three years to 44 in 1951. In the 1952-1957 period, when the program norms were based on the results of tests administered on a required participation basis only, the percentiles corresponding to the senior medians fell in the range of 47 to 53. There is no marked trend of increase or decrease in these medians. Since the Orientation Test is not used by many colleges with students at the senior level of accounting study, there is no satisfactory basis for evaluating trends in the aptitude level of seniors.

Summary. - In reviewing the college program test data for the elevenyear period from 1946 to 1957, inferences about trends in the median aptitude and achievement levels of the participants must be made cautiously, since certain procedural changes were made in the program during the span of years. It seems unwise to compare the medians of programs prior to the fall of 1951 with those of subsequent programs, since results of tests administered on a voluntary participation basis were excluded from the program norms from the fall of 1951 and on. It was noted that the aptitude level of first-year students tested in the fall programs of the past five years, 1952 through 1956, remained at a fairly constant level, with the medians corresponding to percentiles of 49 to 51 on the current norm tables. The achievement of first-year accounting students, as reflected by the Level I Achievement Test medians in the spring programs, showed an increase from a percentile equivalent of 48 in 1953 up to a percentile of 54 in 1957. At the senior level, the Level II Achievement Test medians fell in the percentile range of 44 to 56 during the 1947 to 1951 period. while the percentile range for the 1952-1957 interval was 47 to 53. These medians have not shown any consistent trend during recent years.

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