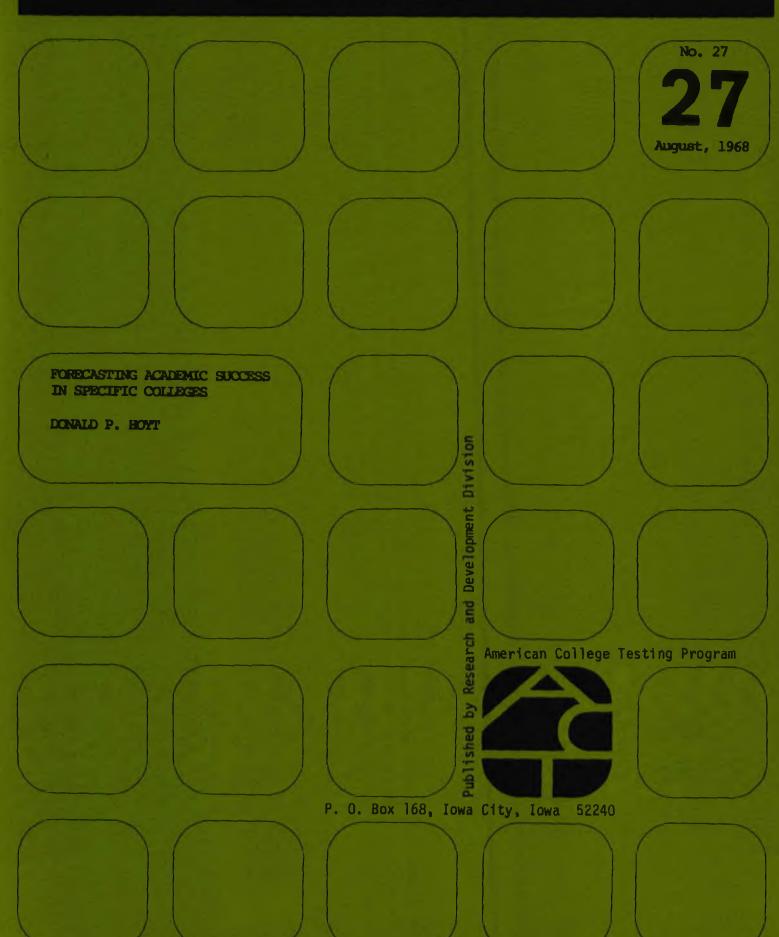
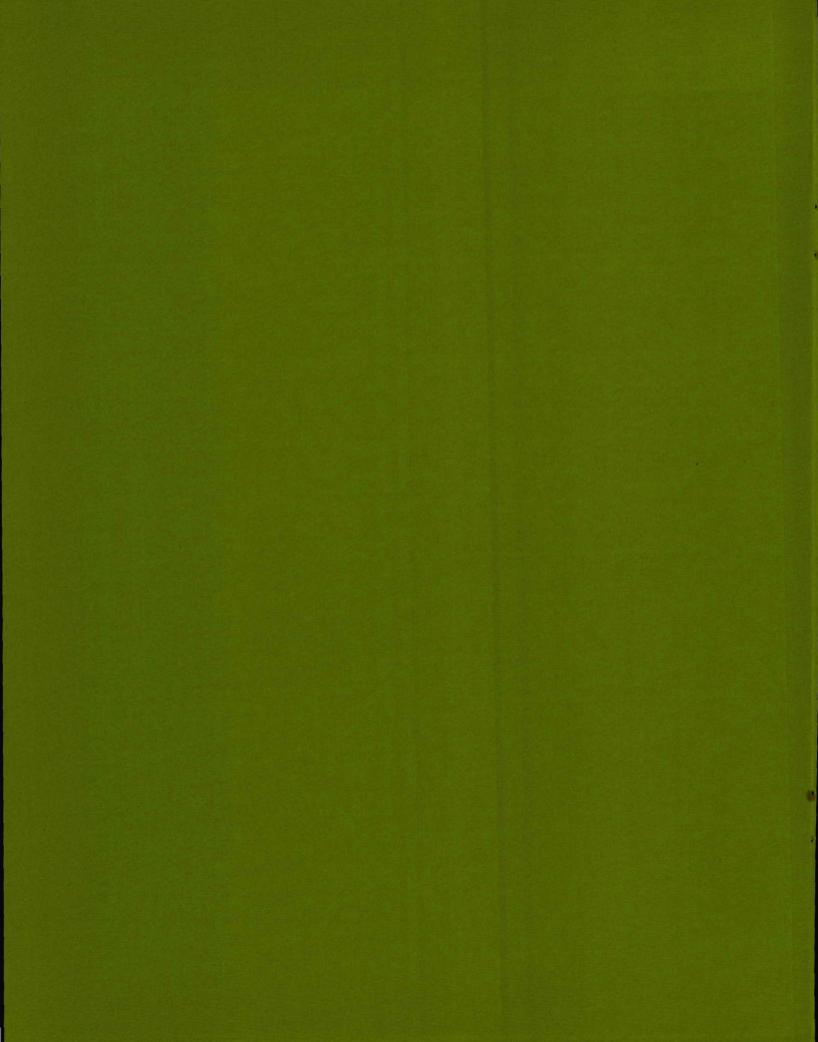
ACT RESEARCH REPORT





FORECASTING ACADEMIC SUCCESS IN SPECIFIC COLLEGES

Donald P. Hoyt

American College Testing Program

Part I. The Problem

One of the most obvious trends in American education is the increasing proportion of youngsters seeking post high school education or training. The ratio of number of college students to the total number in the 18-21 age group has risen steadily from 14 out of 100 in 1939 to 46 out of 100 in 1965. It is expected to reach 55 out of 100 by 1974. Whereas there were about 1.3 million college students in 1939, there were 5.5 million in 1965 and about 8.7 million are expected in 1974 (Office of Education, 1965a, 1965b; Bureau of Census, 1964).

This trend is accompanied by an immense diversity in the needs and talents of college-bound youth. No longer is college a place exclusively for the leisure class, or for training ministers and doctors, or for the intellectual elite. It has become a major means of preparing students for a vast array of occupations. The demands of the vocational world for more and more people with specialized skills and understandings, together with the willingness of higher education to adapt its curricula to these demands, account in large part for the dramatic increase in the numbers of high school graduates seeking admission to college. It has also led to enormous differences among colleges in purposes, philosophies, facilities, students, and the many other ingredients of higher education.

A number of research studies have documented the diversity in higher education. For example, McConnell and Heist (1962) found that, in a representative sample of 200 colleges, the average score on the American Council on Education Psychological Examination ranged from 37.5 (below the first percentile for college freshmen nationally) to 142.2 (above the 90th percentile for all college freshmen). Similarly, in an 11 college study, Goldsen and her colleagues (1960) found that 80% of the students at Fisk felt that vocational training should be emphasized, while only 30% of Harvard freshmen endorsed this as a legitimate emphasis in college. And in other studies, wide differences have been found among colleges in the degree to which their freshmen aspired to advanced degrees, planned to work part-time, were influenced in their choice of college by economic factors, or had attained success in out-of-class activities in high school (Hoyt, 1968a, 1968b).

These institutional differences, while giving a chaotic picture of higher education in America, are generally viewed as desirable. They illustrate some of the major individual differences among high school seniors. Because a large proportion of this diverse group will enroll in "college," different kinds of colleges will be needed.

Whether by design or by chance, American society has produced an extremely wide range of opportunities for post-high school training. However, the problem of selecting a college which is well suited to the capacities and

needs of a given student has not been resolved. The secondary school counselor, because of his interest, experience, and training, is expected to play a key role in this decision by providing useful information to the student and by helping the student explore his capacities, interests, and values.

Pre-College Guidance -- A Model

A general model for providing assistance to individuals in making and implementing effective plans has been available since the time of Parsons and before (Zytowski, 1967). The model requires understanding the person, understanding the nature of the choices available to him, and combining these understandings to maximize the probability that the individual's goals can be realized.

Applied to the pre-college guidance setting, the model requires, first, that the student arrive at a realistic assessment of his characteristics as they relate to his needs for higher education. Whether or not a given characteristic is relevant to planning is often a matter for individual decision making. For example, two students may each correctly characterize themselves as highly social in orientation. One may believe that the satisfaction of his social drives is relatively unimportant at this time, and thus campus social opportunities are irrelevant to his choice of college; the other may believe that the opportunity to express his social nature and develop his social skills is highly important and will seek a college which facilitates the achievement

of these goals.

There is no definitive list of the personal characteristics which should be assessed. But it does seem desirable for all college-bound students to have a clear concept of their goals in attending college and an accurate understanding of their potential for reaching these goals.

The model requires that college opportunities be understood in a similar manner; that is, those aspects of the college which are relevant to the individual's goals and capacities should be known prior to the time that an application is made. For individual students, this may require knowledge of the extra-curricular opportunities, of the athletic program, of the library, of the national reputation of the faculty in a given department, or of many other environmental features which will facilitate or inhibit the student's ability to reach his goals. Almost all colleges set minimum standards of academic achievement which the student must reach if he is to re-enroll and eventually graduate. Therefore, for most students, an understanding of the academic characteristics of the college including the level of competition, the severity of grading practices, and the nature of academic probation and dismissal policies, is required.

Helping the student understand himself, the nature of the choices available to him, and the means by which these understandings can be integrated into a plan which promises to have satisfying outcomes are important responsibilities of the counselor.

Current Status

The effectiveness of the counselor in assisting his pre-college client depends upon the student's readiness to accept help, the counselor's professional skill, the counselor-client relationship, and the adequacy of the information which can be brought to bear on the situation. Our present understanding is inadequate to guarantee that optimal conditions will exist in any of these areas.

In the past few years, there has been considerable improvement in the quality and scope of information about colleges available to counselors. The publications of Astin (1965), Cass and Birnbaum (1965), Gleazer (1967), and Cartter (1964) are especially helpful because of their comprehensiveness and objectivity. But these publications have been unable to supply adequate information on one critical aspect of the college, namely its academic demands. It is this kind of information which the present monograph seeks to provide.

The Educational Need

Counselors and others concerned with "the great sorting" process of college admissions have long been aware of the need for information about the level of academic competition and the grading standards characteristic of a given college. Some progress has been made in obtaining such information for certain colleges. For example, the College Entrance Examination Board (CEEB, 1967) published academic information about 520 colleges that

volunteered to release it; academic aptitude distributions were usually included, and some colleges also provided their distribution of freshman grades. More complete academic information is available for the colleges in Utah (Jex, 1966), Minnesota (Johnson et. al., 1961), and Georgia (Hills et. al., 1965). Special manuals have been prepared for these states which provide specific equations for predicting academic success at each college. These predictions are based on the results of a standardized aptitude test and a summary of the high school record; since a separate equation is prepared for each college, differences in grading standards are taken in account as well as differences in the academic potentials of their students. Unfortunately, these guides include only a small portion of the colleges and universities in America.

Yet students, counselors, and parents need to know a student's likelihood for obtaining satisfactory grades at any college a student may wish to consider. If a student's academic achievement could be forecast for all colleges, the promotion of student potential and well being would be considerable. Such information would nurture not only our human capital but the resources of higher education, for student attrition within the college years is usually destructive for both students and colleges.

The alternatives to this point of view appear less tenable. If academic information is not available, students, counselors, and parents use unreliable substitutes: rumor, anecdotes based on one or two students, crude or incomplete information from the growing galaxy of commercial

guides, etc.

To secure more useful and comprehensive information, there are only two major alternatives: (1) persuade all colleges to provide the necessary information, or (2) use the current public information about colleges and universities to supplement college guides and other less reliable and incomplete reports about colleges.

This report considers how public information about colleges can be used to make predictions of academic accomplishment which will benefit students, counselors, parents, and colleges.

The Research Problem

The statistical ideal would be to develop an accurate equation for predicting grades at every college. A considerable literature exists on academic prediction studies (e.g., Lavin, 1965). We know that the most useful predictions are made when both a scholastic aptitude test and the high school record are used. The literature also tells us that separate equations for boys and girls are desirable for the latter usually excel in both college grades and high school grades but not on scholastic aptitude tests. Furthermore, the academic achievement of girls can usually be predicted more accurately than can that of boys.

Previous research has not settled the question of whether unique regression weights need to be developed for every college. While, in practice, unique equations are usually developed for each college, there has been no careful study of how wide the differences are in the weights so

developed. An informal examination of several hundred such equations suggested that a fairly "standard" pattern of weights may exist. Empirically, research done on the Washington Pre-College Testing Program suggested that equations developed for the University of Washington could be usefully applied to other four-year colleges in that state (Lunneborg, 1966). From these considerations, it was hypothesized that one could find a single set of weights--one for the high school record and one for a scholastic aptitude score--that would "work" satisfactorily for almost any college.

In a preliminary study, this supposition was tested by developing a "general prediction equation" and comparing its predictive accuracy with that of unique equations developed at each of 23 individual colleges (Hoyt, 1963). The general equation correlated with grades nearly as well as did the unique equations. It appeared practical then, to use the same regression weights for every college.

The preliminary study also revealed the major weakness in generalized prediction. Despite generally satisfactory correlations, the accuracy of prediction at individual institutions was often unsatisfactory. In some colleges, predictions were frequently too high, and in others they were frequently too low. Such systematic errors do not affect the correlation coefficient, but they do reduce the usefulness of generalized equations.

Systematic errors in prediction occur because colleges differ in their

grading practices and in the level of academic potential which characterizes their freshman class. Furthermore, there is little relationship between the level of grades and the level of academic ability as measured by a standardized test. Clearly, the practical usefulness of generalized equations depends upon our ability to take these differences into account.

The Procedure²

Guided by previous research, we decided to use two measures to predict grades--one reflecting the high school record and one reflecting performance on a standardized test of academic potential. Because of their accessibility, measures routinely reported by The American College Testing Program were chosen. These included high school average (HSA) and the ACT Composite (ACT-C).

HSA is the average of four self-reported high school grades. At the time that the student writes the ACT examination, he is asked to report his most recent term grades in English, mathematics, social studies, and natural sciences. Grades earned in the senior year are excluded so that

¹In a study of 79 junior colleges, mean GPA and mean ACT Composite correlated only .05 (Hoyt, 1968a) while in 169 four-year colleges this correlation was .33 (Hoyt, 1968b).

²The research summarized here is reported in more detail in an article which will appear in the <u>Personnel and Guidance Journal</u> (Hoyt, 1968c).

typically these grades reflect high school performance in the junior year. Because not all students register for courses in all four areas during their junior year, it is sometimes necessary to include courses taken in the sophomore or freshman years. Previous research has established that these grades are generally reported accurately; further, they have been shown to be as predictive of college grades as the more familiar high school rank (HSR) (American College Testing Program, 1965).

The ACT Composite is the average of the standard scores for the four tests of educational development included in the ACT Battery. These tests assess the student's ability to perform academic tasks typically required by college courses in English, mathematics, social studies, and natural sciences. The tests have been shown to be as predictive of college grades as other tests of academic potential (Munday, 1965; Buros, 1965).

An empirical approach was taken to the problem of the relative weight to give to HSA and ACT-C. Optimal weights were computed for each sex for a sample of 50 four-year colleges which had participated in one of the American College Testing Program's predictive services. Although the ratio of the ACT-C weight to the HSA weight ranged from 1:.7 to 1:3.2, most of the ratios were near the median of 1:1.2. This ratio held for both sexes and was used to develop the general prediction equations.

This same sample of 50 colleges was used to estimate certain other statistical constants needed to develop these questions. Thus, it was

discovered that the typical girl had an HSA which was .33 higher than the typical boy; similarly, the ACT-C for girls averaged .33 below that for boys, and girls typically had a college GPA which was .29 above that of the typical male. Median standard deviations on each of these measures were also computed for each sex. All of these data were used in a standard manner to develop prediction equations.

To deal with the problem of systematic errors in prediction, it is necessary to be able to estimate three constants for any college--the mean ACT-C, the mean HSA, and the mean college GPA. And, since not all colleges provide these data, these estimates must be made from published non-confidential sources of information. For this purpose, the "college profile" scores provided by Astin (1965) were used. Before describing how these scores were employed, it may be helpful to review their nature briefly.

A few years ago, Astin and Holland (1961) proposed a new and simple method for measuring the college environment. From Holland's theory of vocational choice (Holland, 1959), they reasoned that (a) the most important features of a campus environment were those created by its students, (b) the type of atmosphere created on a given campus would depend upon the proportions with which each of several types of students were represented, and (c) that the presence of important types of students could be inferred from knowledge of the number of students graduating each year in each of six

areas of study (Realistic, Intellectual, Social, Conventional, Enterprising, and Artistic). Since students and adults in these fields have been shown to have different patterns of abilities, interests, competencies, and personality traits (Holland, 1966), it is reasonable to suppose that a college dominated by one of them would provide an atmosphere distinct from that of a college dominated by another. The Astin-Holland Environmental Assessment Technique (EAT) simply described the percentage of graduates in each of these six fields, using data routinely supplied by the United States Office of Education. By simple statistical manipulation, these percentages were converted to standard scores with a mean of 50 and standard deviation of 10. Two other items were included in the EAT: the size of the student body (taken from an Office of Education publication), and the estimated "selectivity" of the institution. The latter was compiled on the basis of the relative popularity of colleges with students scoring high on the National Merit Scholarship tests; the more popular the college relative to its total size, the higher the selectivity score.

In other studies, Astin focused his research attention on the question,
"What are the major dimensions of student characteristics which differentiate
among institutions of higher education?" (Astin, 1964a). After collecting
some 52 items of information descriptive of student characteristics at 248
diverse colleges, Astin was able to show that these described six basic
dimensions upon which entering classes differed. These dimensions were
labeled Intellectualism, Estheticism, Status, Pragmatism, Masculinity,

and Leadership.

In another study Astin (1962) showed that four factors—affluence, size, private control, and "masculinity"—accounted for most of the known differences among higher educational institutions. Using data from the United States Office of Education, the American Council on Education, the National Research Council, and the National Merit Scholarship Corporation, Astin correlated measures of these four factors, as well as EAT scores, with measures of the six dimensions of student characteristics discovered earlier (Astin, 1964b). In this important investigation, it was found that five of the six dimensions could be accurately predicted from the objective descriptions of the colleges. College characteristics correlated only .58 with the "Leadership" dimension, but for the other five student characteristics, correlations ranged from .73 to .90.

Since, with the exception of "Leadership," basic student characteristics could be inferred from measures of college characteristics, and since the latter were generally available in published sources, Astin was able to supply "college profiles" for over 1,000 accredited four-year colleges (Astin, 1965). These profiles included both the EAT and the student characteristics estimated from EAT scores and other objective indices of college characteristics.

Could Astin's "profile scores" be used to estimate the three means needed to "adjust" the generalized predictions and to take into account

differences in grading standards and the academic potential of entering students? This question was explored by using a sample of 169 four-year colleges which had participated in one of ACT's predictive research services in 1965 or 1966. The mean ACT-C, HSA, and first year college GPA were recorded for each college. Astin's 13 scores were then correlated with each of these measures. After eliminating any of Astin's scores which did not contribute significantly to the accuracy of prediction, multiple correlations of .78, .58, and .59 were obtained with mean ACT-C, mean HSA, and mean college GPA, respectively. To check the stability of the equations used in predicting these three means, a new sample of 207 colleges was drawn. Cross-validation coefficients of .78, .63, and .54 were obtained, suggesting that the original findings were reasonably stable.

While these correlations were encouraging, only the .78 associated with the ACT Composite could be considered high enough to justify estimates for individual colleges. Many sizeable errors would be made if mean HSA or mean college GPA on a given campus were estimated from Astin's scores.

It is possible that these errors might have a compensating effect upon each other. That is, if the estimated HSA at a given college was too low, the estimated college GPA might also be too low so that a prediction equation which relied on both estimates might yield satisfactory results despite these errors. The next phase of the study explored this question.

A new sample of 18 colleges was used, representing all regions of the

country and most of the types of four-year colleges. How accurately could the college grades of the student sample for one year be predicted from (a) the institution's own prediction equations developed from results for the previous year's freshman class, and (b) the generalized equation developed in this investigation?

As we noted earlier, accuracy is reflected both in the predictive correlation and in the magnitude of the difference between predicted and obtained. For the 18 colleges, the medians of the two sets of correlations (specific equation and general equation) were identical; the largest difference between the two was only .04. Further, the generalized equations (adjusted by the mean ACT-C, HSA, and college GPA estimated from Astin's scores) made no more systematic errors than did the unique institutional equations developed from the records of the previous year's freshmen.

Since the 18 colleges were chosen to reflect the diverse elements in higher education, and since the generalized method was eminently successful with them, there is reason to believe that the method could be effectively applied to any college for which Astin has published a profile. The necessary computational work has been done and the results appear in Part II of this report. The Appendix provides a detailed description of how these computations were made.

Part II. Application

The research reported in Part I established a method for predicting grades at any four-year college from a knowledge of the student's ACT Composite score and his recent high school grades in four areas. This section applies these results to nearly 1,000 four-year colleges.

Before examining the specific procedures, it may be helpful to look at two questions. (1) Suppose a given college has released predictive information to high school counselors which yields predictions that are inconsistent with those made through data supplied in this publication. Which should be used? If the college has released current prediction equations, these should be used rather than the results reported here. Although no evidence has been found that local equations are superior, it is unlikely that they would be inferior. (2) Can the findings be used for students who do not write the ACT Examination? In particular, since many colleges require the results of the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board, could SAT scores be used in place of ACT scores? Several studies have shown that the ACT-Composite and the total SAT score (V + M) are highly correlated. As a result, tables of "equivalency" can be constructed. While there are many technical and practical reasons why the SAT and ACT tests could never be considered as identical measures, it is usually possible to infer a student's standing on one from his standing on the other. Chase and Barritt (1966) have recently published a table of concordance between ACT and SAT; an adaptation of this table is shown in Figure 1. 3 By using this table, SAT scores could be "converted" to ACT-C scores which could then be used for prediction purposes.

Figure 1

A "Table of Concordance" Between ACT and SAT,

Adapted From Chase and Barritt (1966)

CT Composite	SAT Total	(V + M)
	Men	Women
8	403-443	400-421
9	444-485	422-462
10	486-526	563-504
11	5 2 7-56 7	505-545
12	568-608	546-587
13	609-650	588-629
14	651-691	630-670
15	692-732	671-712
16	733-773	713-753
17	774-815	754-795
18	816-856	796-836
19	857-897	837-878
20	898-938	879-920
21	939-980	921-961
22	981-1021	962-1003
23	1022-1062	1004-1044
24	1063-1103	1045-1086
25	1104-1144	1087-1128
2 6	1145-1185	1129-1169
27	1186-1227	1170-1211
28	1228-1268	1212-1252
29	1269-1309	1253-1294
30	1310-1351	1295-1336
31	1352-1392	1337-1377
32	1393-1433	1378-1419
33	1434-1474*	1420-1460*
34	1475-1516*	1461-1502*
35	1517-1557*	1503-1544*
36	1558-1598*	1545-1585*

 $^{^3\}mathrm{Thanks}$ are due to Clinton I. Chase, L. Spencer Barritt, and the

A note of caution is in order. The converting process (SAT to ACT) represents an additional manipulation of data, and the effect of this on predictive accuracy is unknown. Therefore, if complete information about a college's academic characteristics has been published in the Manual of Freshman Class Profiles (CEEB, 1967), it should be used in preference to the data in this publication.

To predict the academic success of a given student at specific fouryear colleges requires the following procedures:

1. Record the student's ACT Composite score (or the ACT Composite score converted from the SAT V + M score) and his HSA. The HSA should be computed on a four-point scale (A=4; B=3; C=2; D=1; F=0). From the student's transcript, determine his most recent term grade, prior to the senior year, in English, mathematics, social studies, and natural science. The chart below enumerates all possibilities:

High School Grades	HSA
AAAA	4.00
AAAB	3.75
AAAC; AABB	3.50
AAAD; AABC; ABBB	3.25
AAAF; AACC; AABD; ABBC; BBBB	3.00
AABF; AACD; ABBD; ABCC; BBBC	2.75

³(cont.) <u>Journal of College Student Personnel</u>, for their permission to reproduce the data shown in Figure 1.

High School Grades	<u>HSA</u>
AACF; AADD; ABBF; ABCD; ACCC; BBBD; BBCC	2.50
AADF; ABCF; ABDD; ACCD; BBBF; BBCD; BCCC	2.25
AAFF; ABDF; ACCF; ACDD; BBCF; BBDD; BCCD; CCCC	2.00
ABFF; ACDF; ADDD; BBDF; BCCF; BCDD; CCCD	1.75
ACFF; ADDF; BBFF; BDDD; BCDF; CCCF; CCDD	1.50
ADFF; BCFF; BDDF; CCDF; CDDD	1.25
AFFF; BDFF; CCFF; CDDF; DDDD	1.00
BFFF; CDFF; DDDF	0.75
CFFF; DDFF	0.50
DFFF	0.25
FFFF	0.00

- 2. Use Table A-1 (men) or Table A-2 (women) to develop a "general academic potential" index for the student. This is done by finding the column corresponding to the student's HSA, the row corresponding to his ACT Composite score, and the cell where this row and column intersect.
- 3. Convert this index into a predicted GPA by adding the college constant given in Table B. The obtained prediction is on a four-point scale where A=4, B=3, C=2, D=1, and F=0.
- 4. Use Table C to estimate the student's probability of earning a firstyear GPA below C, between C and B, or B or higher.

Illustration: Mary Jones is considering two Iowa colleges: Iowa
Wesleyan and Iowa State University. She has an ACT Composite standard
score of 20. Her transcript shows that, prior to her senior year, her

most recent high school grades were B in English, C in mathematics, A in social studies, and C in natural science, giving her an HSA of 2.75 (3+2+4+2). Table A-2 shows that her "academic potential" index is 2.51. The regression constants for women at Iowa Wesleyan and at Iowa State University (Table B) are -.12 and -.49 respectively. Thus, her predicted GPA at Iowa Wesleyan is 2.39 (2.51-.12); at Iowa State University, her predicted GPA is 2.02 (2.51-.49). These figures can be rounded to 2.4 and 2.0; then Table C can be used. It shows that the probability of earning below a C average is estimated as 24/100 at Iowa Wesleyan and 50/100 at Iowa State University.

Table B also includes an estimate of the mean ACT Composite score at each college. This estimate is given as an interval, which reflects the predicted mean plus and minus one standard error of estimate. Thus, the chances are 2 out of 3 that the "true" mean for the institution lies within this range. For some colleges, the ACT Composite estimate may be more valuable than the predicted GPA. This will often be true of highly selective colleges that admit only a portion of the applicants capable of doing satisfactory academic work. Since these colleges must deny admission to many students with predicted GPAs of 2.0 or higher, the difference between the student's ACT Composite and the college's predicted ACT Composite mean may provide a more reliable indication of his academic acceptability than does his predicted GPA at that college.

Some Limitations

Before making practical applications of these data in pre-college guidance, counselors should be aware of the following limitations:

- 1. Only four-year accredited colleges for which Astin published profiles are included. Two-year colleges, unaccredited colleges, or recently accredited colleges have been omitted.
- 2. The possibility of change in entering classes at individual colleges should be recognized. Astin's evidence suggests that such change is rare. Nonetheless, counselors should be alert to changes in college policies which may affect the nature of the student body and therefore the current validity of previously developed regression equations.
- 3. Especially in complex institutions, a single prediction of academic success may be unsatisfactory since it ignores differences among curricula. Preliminary research shows that in complex colleges, freshmen in Education, Business Administration, or Engineering Sciences typically differ significantly from the freshman class as a whole. On the other hand, Liberal Arts freshmen usually resemble the entire freshman class in their academic characteristics. Modal differences between these curricular groups and the entire freshman class are shown in Figure 2. This figure shows that freshmen enrolling in the Education curriculum at a complex college or university typically average 1.3 standard score points on the ACT Composite below the average for the entire freshman class. These Education freshmen typically had slightly higher HSAs than did all freshmen

Figure 2

Typical Academic Differences Between All Freshmen and

Freshmen Enrolling in Selected Curricular Groups in

Complex Colleges and Universities

Curriculum Group	Mean ACT Composite	Mean HSA	Mean College GPA
Education	-1.3	+.05	+.05
Business Administrati	on -0.8	21	-, 14
Engineering Science	+1.8	+.11	05
Liberal Arts	+0.7	03	02
•			

and also earned slightly higher college GPAs. Students in Engineering Sciences typically were above the college's average on both the ACT Composite and HSA but were awarded grades which were slightly lower than those typically given at the college.

Further research must be done to establish the counseling implications of these findings. The evidence so far suggests that no correction should be made in academic predictions for students planning to enroll in Liberal Arts or Business Administration curricula; about .1 should be added to the GPA predictions for students planning to enroll in Education, and about .2 should be subtracted from the GPA predictions for students planning to enroll in an Engineering Science curriculum. It should be emphasized that new research may suggest revisions in these "correction" figures and may

identify other curricular groups for which corrections should be made.

- 4. While the evidence reported here suggests that generalized equations will probably predict as accurately as unique institutional equations, there is no dependable way of knowing the predictive efficacy of either type of equation at a given college. In general, the more an institution selects its students on the basis of their academic potentials, the lower the predictive correlation will be. For these colleges, the predicted mean ACT Composite will probably be more helpful to the counselor than the student's predicted GPA.
- 5. Because of statistical regression, the predicted ACT Composite means (Table B) probably contain systematic errors. In particular, predicted means in the range of 22-25 may be about one standard score too low, and those above 25 about two standard scores too low. Conversely, predicted means in the 16-19 range may be about one standard score too high, and those below 16 about two standard scores too high.

Counseling Uses

The tables in this publication are intended to provide the counselor and his pre-college client with some helpful information about the probable academic success of the latter, but they are not a substitute for more current, predictive information provided by individual colleges. It is important that both counselor and client put this information in proper perspective.

For many students, the information may be relatively irrelevant.

Effective counseling will usually establish what kinds of information the student needs. It is quite conceivable that the pivotal issues in the college choice process will revolve around questions unrelated to academic success. Cost, location, curricular offerings, special programs (independent study, remedial reading, junior-year abroad, etc.), prestige, student services, social climate, or a variety of other factors may be more germane to the student's choice of a satisfactory college. To routinely refer to the academic predictions made in this report, without regard to whether they represent information which the student desires or needs, would be poor counseling strategy.

Of course, counselors should be concerned that student choices reflect reality considerations. Students who make tentative college choices where they have low probabilities of succeeding, or low probabilities of being accepted, should be informed of these realities even if they fail to formulate questions which provoke this information. It is conceivable that the reasons for such choices are sufficiently compelling that the student will attempt to implement his plans despite the bleak prognosis, and counselors must be careful not to place negative value judgments on such decisions. But it also happens that students may overlook or be unaware of the differences in academic demands made by various colleges. Such students should not be denied this information simply because they failed, in their exploration of plans, to perceive its relevance to the decisions they face.

Similarly, academically able students who are considering colleges where the general level of academic competition is low should be encouraged to reflect upon the potential consequences of such a choice. For some, the possibility of boredom through lack of intellectual competition and stimulation may be seen as an important deterrent. Others may have psychological needs which require that they produce superior academic records, so that a sizeable difference between their academic potential and the college's academic demands would be perceived as a positive sign.

One further consideration should be added to the perspective provided by the preceding discussion. Counselors and their clients should be aware that academic success represents only one type of accomplishment. A number of studies have shown that distinguished performance outside of the classroom, whether in high school or in college, bears little relation to high school grades, college grades, or tests of academic potential (Holland & Richards, 1965; Richards, Holland & Lutz, 1967). Furthermore, the literature on the relationship of college grades to measures of adult success is consistent in showing that the two are either unrelated, or, at best, modestly correlated (Hoyt, 1966). In helping youngsters plan their future, counselors should be aware that by concentrating solely on academic prognoses they may unintentionally suggest to the student that academic success is a satisfactory indicator of other types of success. Regardless

of how gifted or handicapped a student may be academically, he should be encouraged to identify and develop his major strengths to the end that he makes a useful contribution to society through the realization of his unique potentials.

Table A-1 Grade Prediction For Men High School Average (HSA)

		4.00	3.75	3.50	3.25	3,00	2.75	2.50	2,25	2.00	1.75	1,50	1.25	1,00	0.75	0.50	0.25	0.00	
	36	3,73	3,62	3.51	3,40	3,28	3.18	3.07	2.96	2.85	2.74	2.62	2,51	2.40	2,30	2,18	2.07	1.96	36
	35	3.68	3.57	3.46	3.35	3.23	3.12	3.01	2.90	Z. 79	2.68	2.57	2,46	2,35	2.24	2.13	2.02	1.90	35
	34	3.63	3,52	3.40	3,30	3, 17	3.07	2.96	2.85	2.74	2.63	2,52	2.40	2.29	2.18	2.07	1.96	1.85	34
	33	3,57	3.46	3.35	3.24	3.12	3.02	2.91	2.79	2.68	2.57	2.46	2.35	2.24	2.13	2.02	1.91	1.80	33
Α	32	3,52	3.41	3.29	3.18	3.06	z.96	2.85	2.74	2.63	2.52	.2.41	2.30	2.18	2.07	1.96	1.85	1.74	32
С	31	3.46	3.35	3.24	3,13	3.01	2.91	2,80	2.69	2.58	2.46	2,35	2.24	2.13	2.02	1.91	1.80	1,69	31
T	30	3.41	3.30	3.19	3.08	2.96	2.85	2.74	2.63	2.52	2.41	2.30	2.19	2.08	1.97	1.85	1.74	1.63	30
С	29	3.35	3,24	3.13	3.02	2.90	2.80	2.69	2.58	2.47	2.35	2,24	2.13	2.02	1.91	1.80	1.69	1.58	29
Ö	28	3.30	3.19	3.08	2.97	2.85	2.74	2.63	2.52	2.41	2.30	2.19	2.08	1.97	1.86	1.75	1.63	1.52	28
M	27	3.25	2.13	3.02	2.91	2.79	2.69	2.58	2.47	2.36	2.25	2.13	2.02	1.91	1.80	1.69	1.58	1.47	27
P	26	3.19	3.08	2.97	2.86	2.74	2.64	2.52	2.41	2.30	2.19	2,08	1.97	1.86	1.75	1.64	1.53	1.41	26
O S	25	3, 14	3.03	2.91	2.80	2.68	2.58	2.47	2.36	2.25	2.14	2.03	1.92	1.80	1.69	1.58	1.47	1.36	25
S I	24	3.08	2.97	2.86	2.75	2.63	2,53	2.42	2.30	2.19	2.08	1.97	1.86	1.75	1.64	1.53	1.42	1.31	24
T	23	3.03	2.92	2.81	2.69	2.57	2.47	2.36	2,25	2.14	2.03	1.92	1.81	1.70	1.58	1.47	1.36	1.25	23
E	22	2.97	2.86	2.75	2.64	2.52	2.42	2.31	2,20	2.08	1.97	1.86	1.75	1.64	1,53	1.42	1.31	1.20	22
	21	2.92	2.81	2.70	2.59	2.47	2.36	2.25	2.14	2.03	1.92	1.81	1.70	1.59	1.48	1.36	1.25	1.14	21
S	20	2.86	2.75	2.64	2.53	2.41	2,31	2,20	2.09	1.98	1.87	1.75	1.64	1.53	1.42	1.31	1.20	1.09	20
T	19	2.81	2.70	2.59	2.48	2.36	2.25	2.14	2.03	1.92	1.81	1.70	1.59	1.48	1.37	1.26	1.14	1.03	19
A	18	2.76	2.64	2.53	2.42	2.30	2,20	2.09	1.98	1.87	1.76	1.65	1.53	1.42	1.31	1.20	1.09	0.98	18
N D	17	2.70	2.59	2.48	2.37	2.25	2.15	2.03	1.92	1.81	1.70	1.59	1.48	1.37	1.26	1.15	1.04	0.92	17
A	16	2.65	2,54	2.42	2.31	2.19	2.09	1.98	1.87	1.76	1.65	1.54	1.43	1.31	1.20	1.09	0.98	0.87	16
R	15	2.59	2.48	2.37	2.26	2,14	2.04	1.93	1.82	1.70	1.59	1.48	1.37	1.26	1.15	1.04	0.93	0.82	15
D	14	2.54	2.43	2.32	2.20	2.08	1,98	1.87	1.76	1.65	1.54	1.43	1.32	1.21	1.09	0.98	0.87	0.76	14
	13	2.48	2.37	2.26	2.15	2.03	1.93	1.82	1.71	1.60	1.48	1.37	1.26	1.15	1.04	0.93	0.82	0.71	13
S	12	2.43	2.32	2.21	2.10	1.98	1,87	1.76	1.65	1.54	1.43		1.21	1.10	0.99 0.93	0.87 0.82	0.76 0.71	0.65 0.60	12 11
C	11	2.37	2.26	2,15	2.04	1.92	1.82	1.71	1.60	1.49	1.38	1.27	1.15	1,04	0.93	0.82	0.71	0.60	
O R	10	2,32	2.21	2,10	1.99	1.87	1.77	1.65	1,54	1.43	1.32	1.21	1.10	0.99	0.88	0.77	0.66	0,54	10
E	9	2.27	2.16	2.04	1.93	1.81	1.71	1.60	1.49	1.38	1.27	1.16	1.04	0.93	0.82	0.71	0.60	0,49	9
E	8	2.21	2.10	1.99	1.88	1.76	1.66	1.55	1.44	1.32	1.21	1.10	0.99	0.88	0.77	0.66	0.55	0.44	8
	7	2.16	2.05	1.93	1.82	1.70	1.60	1.49	1.38	1.27	1.16	1.05	0.94	0.83	0.71	0.60	0.49	0.38	7
	6	2.10	1.99	1.88	1,77	1.65	1.55	1.44	1.33	1.21	1.10	0.99	0.88	0.77	0.66	0.55	0.44	0.33	6
	5	2.05	1,94	1.83	1.72	1.60	1.49	1.38	1.27	1.16	1.05	0.94	0.83	0.72	0.61	0.49	0.38	0.27	5
	4	1.99	1.88	1.77	1.66	1.54	1.44	1.33	1.22	1.11	1.00	0.88	0.77	0.66	0.55	0.44	0.33	0.22	4
	3	1.94	1.83	1.72	1.61	1.49	1.38	1.27	1.16	1.05	0.94	0.83	0.72	0.67	0.50	0.39	0.27	0.16	3
	2	1.89	1.77	1.66	1.55	1.43	1.33	1.23	1.11	1.00	0.89	0.78	0.66	0.55	0.44	0.33	0.22	0.11	2
	<u> </u>	1.83	1.72	1.61	1.50	1.38	1.28	1.16	1,05	0.94	0.83	0.72	0.61	0.50	0.39	0.28	0.17	0.05	<u> </u>

Procedure. Find the student's HSA in one of the columns across the top; then find his ACT Composite in one of the rows down the side. . The "derived score" for the student is given in the cell where this row and column intersect. Add the college constant (Table B) to the "derived score" to obtain the predicted GPA at a given college. Refer the result to Table C (expectancy table).

Table A-2

Grade Prediction For Women

High School Average (HSA)

		4.00	3, 75	3.50	3.25	3.00	2.75	2.50	2.25	2.00	1.75	1.50	1,25	1.00	0. 75	0.50	0.25	0.00	
	36	4.06	3, 94	3.82	3.70	3.58	3.47	3,35	3, 23	3,11	2.99	2.87	2.75	2.63	2,52	2.40	2.28	2.16	36
	35	4.00	3,88	3.76	3.64	3.52	3.41	3.29	3.17	3.05	2.93	2.81	2,69	2.57	2.46	2.34	2.22	2.10	35
	34	3.94	3.82	3.70	3.58	3.46	3.35	3.23	3.11	2.99	2,87	2.75	2.63	2.51	2.40	2,28	2.16	2.04	34
	33	3, 88	3.76	3.64	3.52	3.40	3.29	3.17	3.05	2.93	2.81	2.69	2.57	2.45	2, 34	2.22	2.10	1.98	33
Α	32	3.82	3,70	3.58	3.46	3.34	3, 23	3.11	2.99	2.87	2.75	2.63	2.51	2.39	2.28	2.16	2.04	1.92	32
С	31	3.76	3.64	3.52	3.40	3,28	3.17	3.05	2.93	2.81	2.69	2.57	2.45	2.33	2.22	2.10	1.98	1.86	31
T	30	3.70	3.58	3.46	3.34	3.22	3,11	2.99	2,87	2.75	2.63	2.51	2.39	2.27	2, 16	2.04	1.92	1.80	30
С	29	3.64	3.52	3.40	3.28	3.16	3.05	2.93	2,81	2.69	2.57	2.45	2.33	2.21	2.10	1.98	1.86	1.74	29
0	28	3.58	3.46	3.34	3.22	3.10	2.99	2.87	2.75	2.63	2.51	2.39	2,27	2.15	2.04	1.92	1.80	1.68	28
м	27	3.52	3.40	3.28	3.16	3.04	2.93	2.81	2.69	2.57	2.45	2.33	2.21	2.09	1.98	1.86	1.74	1.62	27
P	26	3.46	3.34	3.22	3.10	3.00	2.87	2.75	2.63	2,51	2.39	2.27	2.15	2.03	1. 92	1.80	1.68	1.56	26
0	25	3.40	3,28	3.16	3.04	2.92	2.81	2.69	2.57	2,45	2,33	2.21	2.09	1.97	1.86	1.74	1.62	1.50	25
S	24	3.34	3,22	3.10	2.98	2.86	2.75	2.63	2.51	2.39	2.27	2.15	2.03	1.91	1.80	1.68	1.56	1.44	24
I	23	3.28	3.16	3.04	2.92	2.80	2.69	2.57	2.45	2.33	2.21	2.09	1.97	1.85	1.74	1.62	1.50	1.38	23
T	22	3.22	3.10	2.98	2.86	2,74	2.63	2.51	2.39	2.27	2.15	2.03	1.91	1.79	1.68	1.56	1.44	1.32	22
E	21	3.16	3.04	2.92	2.80	2.68	2.57	2.45	2,33	2.21	2.09	1.97	1.85	1.73	1.62	1.50	1.38	1.26	21
s	20	3.10	2.98	2.86	2.74	2.62	2.51	2.39	2.27	2.15	2.03	1.91	1.79	1.67	1.56	1.44	1.32	1.20	20
Τ	19	3.04	2.92	2.80	2.68	2.56	2.45	2.33	2.21	2.09	1.97	1.85	1.73	1.61	1.50	1.38	1.26	1.14	19
Α	18	2.98	2.86	2.74	2.62	2,50	2.39	2.27	2.15	2.03	1.91	1.79	1.67	1,55	1.44	1.32	1.20	1.08	18
N	17	2.92	2.80	2.68	2.56	2.44	2,33	2.21	2.09	1.97	1.85	1.73	1.61	1.49	1.38	1.26	1.14	1.02	17
D A	16	2.86	2.74	2.62	2.50	2.38	2.27	2.15	2.03	1.91	1.79	1.67	1.55	1.43	1.32	1.20	1.08	0.96	16
R	15	2.80	2.68	2.56	2.44	2.32	2.21	2.09	1.97	1.85	1.73	1.61	1.49	1.37	1.26	1,14	1.02	0.90	15
D	14	2.74	2.62	2.50	2.38	2.26	2.15	2.03	1.91	1.79	1.67	1.55	1.43	1.31	1.20	1.08	0.96	0.84	14
	13	2.70	2.56	2.44	2.32	2.20	2.09	1.97	1.85	1.73	1.61	1.49	1.37	1.25	1.14	1.02	0.90	0.78	13
s	12	2.62	2.50	2.38	2.26	2.14	2.03	1.91	1.79	1,67	1.55	1.43	1.31	1.19	1.08	0.96	0.84	0.72	12
С	11	2.56	2.44	2. 32	2.20	2.08	1.97	1.85	1.73	1.61	1.49	1.37	1.25	1, 13	1.02	0.90	0.78	0.66	11
O R	10	2.50	2.38	2,26	2.14	2.02	1.91	1.79	1.67	1,55	1.43	1.31	1.19	1.07	0.96	0.84	0.72	0.60	10
E	9	2.44	2.32	2.20	2.08	1.96	1.85	1,73	1.61	1.49	1.37	1.25	1.13	1.01	0.90	0.78	0.66	0.54	9
£	8	2.38	2.26	2,14	2.02	1.90	1.79	1.67	1.55	1.43	1.31	1.19	1.07	0.96	0.84	0,72	0.60	0.48	8
	7	2.32	2.20	2.08	1.96	1.84	1.73	1.61	1.49	1.37	1.25	1.13	1.01	0.90	0.78	0.66	0,54	0.42	7
	6	2.26	2.14	2.02	1.90	1.78	1.67	1.55	1.43	1.31	1.19	1.07	0.95	0.84	0.72	0.60	0.48	0.36	6
	5	2,20	2.08	1.96	1.84	1.72	1.61	1.49	1.37	1.25	1.13	1.01	0.89	0.78	0.66	0.54	0.42	0.30	5
	4	2.14	2.02	1.90	1.78	1.66	1.55	1.43	1.31	1.19	1.07	0.95	0.83	0.72	0.60	0.48	0.36	0.24	4
	3	2.08	1.96	1.84	1.72	1.60	1.49	1.37	1.25	1.13	1.01	0.89	0.77	0.66	0.54	0.42	0.30	0.18	3
	2	2.02	1.90	1.78	1.66	1.55	1.43	1.31	1.19	1.07	0.95	0.83	0.71	0.60	0.48	0.36	0.24	0.12	2
	1	1.96	1.84	1.72	1.60	1.48	1.37	1.25	1.13	1.01	0.89	0.77	0.65	0.54	0.42	0,30	0.18	0.06	1

Procedure. Find the student's HSA in one of the columns across the top; then find his ACT Composite in one of the rows down the side. The "derived score" for the student is given in the cell where this row and column intersect. Add the college constant (Table B) to the "derived score" to obtain the predicted GPA at a given college. Refer the result to Table C (expectancy table).

Table B

ACT Composite Means and Regression Constants For

985 Four-Year Colleges Estimated From Astin's Data

	Predicted			Predicted Measures				
	ACT-C Mean	Cons			ACT-C Mean		stant	
College Name	Interval*	Men	Women	College Name	Interval*	Men	Women	
Alabama				Arkansas A & M				
Alabama College	18.9-22.0	24	28	College	16.7-19.7	14	16	
Athens College	17.7-20.8	04	07	Arkansas Coll	17.4-20.5	03	06	
Auburn Univ	19.3-22.3	47	51	Arkansas Poly-				
Birmingham-				technic Coll	19.0-22.1	25	29	
Southern Coll	20,2-23.2	30	35	Arkansas State				
Florence State				University	16.5-19.6	18	20	
College	17.2-20.3	23	25	State Coll of				
Samford Univ	18.5-21.6	32	35	Arkansas	16.4-19.5	13	16	
Huntingdon Coll	20.1-23.2	29	-,34	College of the				
Jacksonville State				Ozarks	19.6-22.7	14	18	
University	17.3-20.4	20	23	Harding Coll	18.5-21.6	13	17	
Judson College	15.6-18.7		24	Henderson State				
Livingston State				College	16.4-19.5	09	11	
College	18.9-22.0	11	14	Hendrix Coll	22.1-25.1	32	39	
Oakwood College	13.7-16.8	+.12	+.11	Ouachita Baptist				
St. Bernard Coll	15.5-16.6	+.14		University	18.5-21.6	19	22	
Spring Hill Coll	23.2-26.3	22	29	Philander Smith				
Stillman College	15.5-18.5	05	07	College	13.6-16.7	+.09	+.08	
Talladega College	15.7-18.8	.00	03	Southern State				
Troy State Coll	17.4-20.5	17	19	College	17.0-20.1	12	`14	
Tuskegee Institute	14.8-17.9	+.06	+.05	University of				
Univ. of Alabama	20.4-23.5	40	45	Arkansas	19.7-22.8	30	34	
Alaska				California				
Univ of Alaska	19.4-22.5	15	20	Art Center School	19.6-22.7	34	38	
				Calif Coll of				
Arizona				Arts & Crafts	16.6-19.7	59	62	
Northern Arizona				Calif Institute of				
University	18.8-21.9	20	24	Technology	26.9-30.0	-,38		
Arizona State Univ		30	34	Calif State Poly-				
Univ of Arizona	21.5-24.6	42	47	technic College-				
	•		-	Kellogg Campus	19.3-22.3	43	48	
Arkansas				Calif Western	-	•		
Arkansas A. M. &				University	20.4-23.5	36	40	
N. College	14.7-17.8	10	12	Chapman Coll	20,3-23.4	12	17	

^{*}Predicted mean † 1 standard error of estimate.

	Predicted	Measu	Predicted Measures				
	ACT-C Mean	Con	stant	<u> </u>	ACT-C Mean	Cons	tant
College Name	Interval*	Men	Women	College Name	Interval*	Men	Women
Chico State Coll	18.0-21.0	27	30	San Jose State			
Claremont Men's				College	20,5-23.5	41	46
College	22.2-25.3	22		Scripps Coll	21.7-24.8		35
Coll of Notre Dame	19.3-22.4		14	Stanford Univ	24.9-28.0	24	32
Coll of the Holy				Univ of Calif			
Names	18,8-22.0		20	- Berkeley	23.7-26.8	47	54
Dominican Coll of				Univ of Calif -			
San Rafa e l	18.2-21.3		09	Davis	21.6-24.7	42	48
Fresno State Coll	18.2-21.3	25	28	Univ of Calif-			
Golden Gate Coll	16.1-19.2	38	40	Los Angeles	21.9-25.0	39	45
Harvey Mudd Coll	23.4-26.5	34	41	Univ of Calif-			
Humboldt State Coll	18,5-21.6	13	17	Riverside	21.8-24.8	42	48
Immaculate Heart				Univ of Calif			
College	21.1-25.2		31	- Santa Barbara	21.3-24.4		-, 35
La Sierra College	19.4-22.4	27	32	Univ of Redlands	22.6-25.7	20	26
La Verne College	20.3-23.4	20	25	Univ of San Diego			
Calif State Coll at				Coll for Men	21.2-24.2	14	19
Long Beach	18.3-21.4	26	29	Univ of San			
Loyola Univ of				Francisco	20.6-23.7	21	26
Los Angeles	21.8-24.9	15		Univ of Santa			
Mills College	20.2-23.3		33	Clara	23,2-26,3	29	36
Mount St. Mary's				Univ of Southern			
College	20.2-23.4		35	California	22.6-25.7	25	32
Occidental Coll	23.4-26.5	18	25	Univ of the			
Pacific Union Coll	18.4-21.5	21	25	Pacific	20.5-23.6		30
Pasadena Coll	19.4-22.5	21	25	Westmont Coll	21.0-24.1	06	12
Pepperdine Coll	20.5-23.6	19	24	Whittier Coll	20.8-23.9	24	29
Pomona Coll	25.8-28.8	30	39				
Sacramento State				Colorado	•		
College	18.5-21.6	19	23	Adams State			
Saint John's Coll	20.3-23.4	+.15		College	17.9-21.0		11
Saint Mary's Coll				Colorado Coll	24.6-27.7	23	31
of California	20.3-23.4	05		Colorado State			
Saint Patrick's				College	18.7-21.8	18	22
College	18.6-21.7	+.37		Colorado State			
Univ of San Diego				University	21.0-24.1	47	53
Coll for Women	20.3-23.4		19	Loretto Heights			
San Diego State				College	20.8-23.8		26
College	19.4-22.5	32	36	Regis College	19.3-22.3	11	
San Fernando				Univ of Colo-			
Valley State Coll	19.1-22.2	21	25	rado	21.3-24.4		50
San Francisco				Univ of Denver	21.1-24.2	35	41
Art Institute	16.0-19.1	21	24	Western State			
San Francisco				Coll of Colo.	18.3-21.4	14	18
Coll for Women	21.2-24.3		21				
San Francisco				Connecticut			
State College	19.4-22.5	30	35	Albertus Magnus			
				College	23.8-26.9		32

^{*}Predicted mean ! I standard error of estimate.

	Predicted		Predicted Measures					
	ACT-C Mean	1 Cons	tant		ACT-C Mea	n Con	stant	
College Name	Interval*	Men	Women	College Name	Interval*	Men	Women	
Annhurst College	21.7-24.7		43	Rollins College	20.6-23.7	09	14	
Central Connecti-	•			Stetson Univ	21.9-25.0	31	37	
cut State Coll	16.0-19.1	17	19	Univ of Florida	21.0-24.1	44	49	
Connecticut Coll	21.4-24.5		40	Univ of Miami	21.1-24.2	28	34	
Danbury State Coll	19.6-22.7	15	19	Univ of Tampa	19.1-22.2	06	10	
Fairfield Univ	20.7-23.8	13						
Quinnipiac Coll	17,7-20.8	44	47	Georgia				
St. Joseph Coll	20.7-23.8	12	17	Agnes Scott				
Southern Conn			•	College	22.5-25.6		53	
State College	18.0-21.1	14	-,17	Albany State				
Trinity College	23.5-26.6	16		College	14.6-17.7	+.01	.00	
Univ of Bridgeport	16.5-19.6	11	13	Berry College	18.0-21.1	02	05	
Univ of Conn	19.5-22.6	- . 35	39	Brenau College	15.5-18.6		20	
Wesleyan Univ	24.6-27.7	-, 13		Clark College	13.8-16.9	02	~.03	
Willimantic State				Emory Univ	22.7-25.8	27	33	
College	16.4-19.5	05	08	Fort Valley				
Yale Univ	24.7-27.7	26		State Coll	13.7-16.8	02	03	
				Georgia Institute				
Delaware				of Technology	22.4-25.5	41	-,48	
Delaware State				Georgia Southern				
College	14.3-17.3	07	06	College	16.3-19.4	14	16	
Univ of Delaware	20.9-24.0	23	28	Georgia State Coll			56	
				La Grange Coll	17.3-20.4	19	22	
District of Columbia				Mercer Univ	20.2-23.3	31	36	
American Univ	21.2-24.3	29	34	Morehouse Coll	14.4-17.4	08		
Catholic Univ of				Morris Brown				
America	23.2-26.3	05	12	College	14.6-17.7	02	-, 3	
District of Colum-				North Georgia				
bia Teachers Coll	13.6-16.7	+.03	+.02	College	19.5-22.6	21	26	
Dunbarton Coll of				Oglethorpe Univ	16.8-19.8	+.13	+.10	
the Holy Cross	20.0-23.1		20	Paine College	14.4-17.5	11	13	
Gallaudet College	17.1-20.2	+.02	.00	Savannah State				
Geo Wash Univ	21.2-25.2	24	30	College	14.2-17.3	09	11	
Georgetown Univ	24.4-27.5	-,13	20	Shorter College	17.6-20.6	18	21	
Howard University	17.1-20.1	09	12	Spelman College	13.3-16.4		13	
Trinity College	25.1-26.1		47	Tift College	15.9-19.0		34	
				Univ of Georgia	20.2-23.3	43	48	
Florida				Valdosta State				
Barry College	20.0-23.1		18	College	17.6-20.7	24	27	
Bethune-Cookman				Wesleyan Coll	18.0-21.1		33	
College	13.8-16.9	.00	01	Georgia State				
Florida A&M Univ	13.8-16.9	01	02	Coll for Women	16.1-19.1		28	
Florida Memorial								
College	13.5-16.6	+.10	+.09	Hawaii				
Florida Southern				Univ of Hawaii	20.3-23.4	35	40	
College	19.6-22.7	31	36					
Florida State Univ	21.2-24.3	39	45	Idaho				

^{*}Predicted mean ! I standard error of estimate.

	Predicted				Predicted		res
	ACT-C Mea				ACT-C Mear		s t ant
College Name	Interval*	Men	Women	College Name	Interval*	Men	Women
Coll of Idaho	21.1-24.2		10	Northwestern			2.4
Idaho State Univ	19.0-22.1	33	37	University	22.7-25.8	27	34
Northwest Nazar-				Olivet Nazar-			1.0
ene College	20.1-23.2		26	ene College	19.3-22.4	15	19
Univ of Idaho	19.7-22.8	34	38	Principia Coll	21.0-24.1	22	28
				Quincy College	21.6-24.7	06	12
Illinois				Rockford Coll	21.2-24.3	03	09
Augustana Coll	22.5-25.6		39	Roosevelt Univ	21.2-24.3	20	25
Aurora College	18.9-22.0	12	16	Rosary Coll	21.9-25.0		38
Barat Coll of				St. Procopius	00 5 00 /	, ,	••
the Sacred Heart			15	College	20.5-23.6	17	22
Blackburn Coll	22.6-26.7		30	St. Xavier	21 5 24 /		2.7
Bradley Univ.	19.7-22.7	25	30	College	21.5-24.6	2.2	32
Ill Teachers Coll				Shimer Coll	21.5-24.6	23	29
Chicago South	15.9-19.0	+.04	+.02	Southern Ill			
Coll of St. Fran-				Univ-Carbon-	17 / 20 7	3.0	7.7
cis	21.3-24.4		30	dale Campus	17.6-20.7		32
Concordia Teach-				Univ of Chicago	24.0-27.1	25	33
ers College	20.8-23.9		23	Univ of Ill-	21 2 24 4	6 1	6 2
De Paul Univ	20.3-23.4		32	Urbana Campus	21.3-24.4	51	57
Eastern Ill Univ	17.4-20.5		26	Western III	1 (0 20 0	•	
Elmhurst Coll	19.8-22.9	18	23	University	16.9-20.0	08	11
Geo Williams		1		Wheaton Coll	24.1-27.2	18	26
College	14.6-17.7		+.10	Y . 41			
Greenville Coll	19.4-22.5		20	Indiana	10 0 21 0	1.4	1.0
Illinois College	21.2-24.3	24	30	Anderson Coll	18.8-21.8		18 27
Ill Institute of		2.0	4.5	Ball State Univ	17, 7-20.8	24	
Technology	23.8-26.9		47	Butler Univ	20.7-23.8	28 31	33 38
Ill State Univ	18.9-22.0	27	31	De Pauw Univ	22, 4-25, 5 23, 4-26, 5	26	33
Ill Wesleyan		21		Earlham Coll	23.4-20.3	20	55
University	21.1-24.2		-,32	Univ of Evans-	18.6-21.7	20	32
Knox College	24.8-28.0	30	38	ville Franklin Coll	10.0-21.7	27	JL
Lake Forest	22 2 25 2	2.5	4.1	of Indiana	18.7-21.8	0.7	11
College	22.2-25.3		41	Goshen Coll	20.1-23.2		27
Loyola Univ	22.1-25.2		28	• •	22.3-25.4		34
MacMurray Coll	19.7-22.8	19	24	Hanover Coll	22.3-23.4	20	
Maryknoll Sem-		. 10		Indiana Central College	18.3-21.4	1.1	15
inary	18.6-21.7			0	17.9-21.0		23
Millikin Univ	20.7-23.8		31	Ind. State Univ	19.9-22.9		43
Monmouth Coll	21.3-24.4	34	39	Ind University	17.7-22.7	37	45
Mundelein Coll	22.3-25.4		41	Manchester	19.9-23.0	22	28
Nat Coll of				College	17.4-20.5		20
Education	16.6-19.7	+.05	+.03	Marian Coll	21.8-24.8		51
North Central	10 5 21 4	2.1	^ 2	Purdue Univ		-, 73	31
College	18.5-21.6	21	27	Rose Polytechni	c 20.6-23.7	_ 33	
Northern Ill	10 4 21 5	24	3.0	Institute St. Francis Coll			07
University	18.4-21.5	40	30	St. E Tancis Con	20.0-25.1	02	

^{*}Predicted mean 1 standard error of estimate.

	Predicted N	<i>l</i> easur		Predicted 1	Measu	res	
	ACT-C Mean	Cons	tant		ACT-C Mean	Cons	tant
College Name	Interval*	Men	Women	College Name	Interval*	Men	Women
St. Joseph Coll	18.7-21.8	24	28	Kansas State Coll			
St. Mary-of-the	•			of Pittsburg	17.1-20.2	14	17
Woods College	21.5-24.6		29	Kansas State		•	•
St. Mary's Coll	22.6-25.7		33	Teachers Coll	18.0-21.0	21	25
Taylor Univ	21.0-24.1	07	13	Kansas State Univ	19.6-22.7	35	
Univ of Notre				Kansas Wesleyan	-,,,	•	• • •
Dame	21.0-24.1	26		University	17.0-20.1	06	09
Valparaiso Univ	22.2-25.3	37	43	McPherson Coll	17.3-20.4	+.03	.00
Wabash College	23.7-26.8	20		Marymount Coll	17.6-20.7	1.00	07
				Mount St. Scholas			
Iowa				tica College	18.6-21.6		15
Briar Cliff Coll	19.1-22.2		12	OttawaUniversity	20.8-23.9	21	26
Buena Vista Coll	18.0-21.1	08	11	St. Benedict's	20.0.23.7		20
Central College	18.5-21.6	19	24	College	19.9-23.0	12	
Clarke College	20.6-23.7	• • • /	31	Saint Mary Coll	18.1-21.3	12	09
Coe College	19.8-22.9	19	24	Southwestern Coll		15	20
Cornell College	21.7-24.8	24	30	Sterling College	19.2-22.2	08	12
Drake Univ	20.0-23.1	30	35	Univ of Kansas	22.1-25.2	37	
Grinnell College	25.0-28.1	21	29	Washburn Univ	18.5-21.6	22	
Univ of Northern	27.0-20.1	21	2 7	Wichita State Univ		27	
Iowa	20.3-23.4	23	28	Wichita State Only	20.4-23.5	21	32
Iowa State Univ	21.9-25.0	43	49	Kentucky			
Iowa Wesleyan	21. 7-25.0	43	-, 37	Ashbury College	10 0 22 0	06	10
-	16.9-20.0	09	12	Bellarmine Coll	18.9-22.0 20.0-23.0	35	10 39
College Loras College	18.7-21.8	09	-, 1 <i>L</i>	Berea College	18.7-21.8	07	
-	21. 0-24. 1	24	30	Brescia College			
Luther College		-,17	22	Catherine Spalding	19.5-22.6	07	11
Marycrest Coll	19.8-22.9 20.5-23.6	24	29	O 11			1.4
Morningside Coll		14	16		20.5-23.6	2.4	16
Parsons College	16.4-19.5		10	Centre College	22.4-25.4	24	30
St. Ambrose Coll	18.3-21.4	05	22	Eastern Kentucky State University	1/ / 10 7	1.4	1.5
Simpson College	20.1-23.2	18	22	•	16.6-19.7	14	
Univ of Iowa	22.3-25.4	40	46	Georgetown Coll	20.9-24.0	29	35
Univ of Dubuque	20.8-23.9	20	25	Kentucky State	14 1 12 2	. 10	, 00
Upper Iowa Univ	17.3-20.4	+.06	+.03	College	14,1-17.2	+.10	+.09
Wartburg Coll	19.4-22.5	22	26	Kentucky Wesleyar			
Westmar College	18.8-21.9	10	14	College	18.7-21.7	÷, 09	13
16 days and				Morehead State			
Kansas			0.1	University	16.3-19.4	11	13
Baker Univ	19.5-22.6	16	21	Murray State Univ		14	16
Bethany College	19.3-22.4	08	12	Transylvania Coll		18	22
Bethel College	18.6-21.7	07	11	Union College	16.8-19.9	06	08
Coll of Emporia	16.4-19.5	08	11	Univ of Kentucky	20.1-23.2	-,35	40
Fort Hays State		• -		Univ of Louisville	21.0-24.1	37	43
College	16.2-19.3	17	19	Ursuline College	19.7-22.8		19
Friends Univ	16.2-19.3	+.01	01	Villa Madonna			
17 11 1				College	20.9-24.0	-, 16	<u>21</u>

^{*}Predicted mean ! 1 standard error of estimate.

	Predicted	Measur	es		Predicted :	Measur	es
	ACT-C Mean	n Con	stant		ACT-C Mean	Cons	tant
College Name Western Kentucky	Interval*	Men	Women	College Name Frostburg State	Interval*	Men	Women
University	15.2-18.3	~.02	04	College	18.3-21.4	16	19
,		-	-	Goucher College	23.0-26.1		41
Louisiana				Hood College	21.5-24.6		50
Centenary Coll of				Johns Hopkins			
Louisiana	19.1-22.2	23	28	University	23.1-26.2	30	37
Dillard University		02	04	Loyola College	20.1-23.2	19	24
Grambling Coll	13.8-16.9		03	Morgan State			
Louisiana Coll	16.9-20.0		17	College	15.6-18.7	17	19
Louisiana Poly-				Mount St. Agnes			
technic Institute	19.0-22.1	38	44	College	21.4-24.5		19
Louisiana State			•	Mount St. Mary's			
University	19.9-22.9	40	45	College	17.8-20.9	01	
Loyola Univ	22.5-25.6		-,29	St. Joseph Coll	22.9-26.0		34
McNeese State			,	St. Mary's Semin-			
College	16.7-19.8	23	26	ary and Univ	16.0-19.1	+.35	
Northeast Louis-			•	Salisbury State			
iana State Coll	17.0-20.1	34	~.37°	College	16.8-19.9	09	12
Northwestern		•	•••	Towson State Coll		22	26
State Coll of				Univ of Maryland	20,3-23,4	39	44
Louisiana	16.1-19.2	18	20	Washington Coll	22, 4-25, 5	15	21
St. Mary's Domin-		-	-	Western Mary-			
ican College	17.3-20.4		13	land Coll	22, 1-25, 2	31	37
Southeastern	•	'					
Louisiana Coll	16.5-19.5	20	23	Massachusetts		•	
Southern Univer-				American Interna-			
sity	13.5-16.6	10	11	tional College	16.0-19.0	10	12
Tulane Univ of				Amherst College	25.9-29.0	19	
.Louisiana	22.4-25.5	24	30	Anna Maria Coll	•		
Univ of South-				. for Women	18.0-21.0		13
western La.	18.7-21.8	32	36	Assumption Coll	19.0-22.1	+.10	+.06
Xavier Univ	16.3-19.4	+.07	+.05	Atlantic Union			
				College	17.5-20.6	15	17
Maine				Babson Institute	15,8-18.9	31	
Bates College	25.2-28.3	21	29	Boston College	21.1-24.2	26	31
Bowdoin Coll	24.1-27.2	17		Boston Univ	20.8-23.9	25	30
Colby College	23.2-26.3	23	30	Brandeis Univ	25.6-28.7	23	31
Farmington State				Clark Univ	23.8-26.9	24	32
Teachers Coll	16.7-19.8	08	10	Coll of Our Lady			
Univ of Maine	19.6-22.7	29	34	of the Elms	17.8-20.8		19
				Coll of the Holy			
Maryland				Cross	22.9-26.0	18	
Coll of Notre Dam				Eastern Nazar-	1/ = 10.0		
of Maryland	22.9-26.0		39	ene College	16.7-19.8	15	18
Columbia Union				Emerson Coll	16.9-20.0	13	16
College	16.8-19.9	12	14	Emmanuel Coll	22.4-25.5		44

^{*}Predicted mean 1 1 standard error of estimate.

		Predicted Measures					
	Predicted ACT-C Mear				ACT-C Mean		
College Name	Interval*	Men	Women	College Name	Interval*	Men	Women
Harvard University	26.0-29.0	26		Albion College	27.2-30.3	- <u>.38</u>	48
Hebrew Teachers				Alma College	21.7-24.8	29	35
College	17.3-20.4	+.18	+.16	Aquinas Coll	22.6-25.7	16	22
Lesley College	15, 1-18, 2		03	Calvin College	19.9-23.0	26	31
Lowell Technical			•	Central Mich-	,	•	•
Institute	21.2-24.3	42	48	igan Univ	19.3-22.4	29	33
Mass Institute of		• -	• •	Eastern Mich	-,	•-,	•••
Technology	26.7-29.7	42	51	Univ	18.1-21.2	24	28
Merrimack Coll	20.0-23.1	26	31	Ferris State		•	•=•
Mount Holyoke Coll	23.7-26.9		52	College	19.1-22.2	70	74
New England Con-	2017 2077		, , ,	Hillsdale College	20.6-23.7	21	25
servatory of Music	17. 9-20.9	+.07	+.04	Hope College		34	41
Newton Coll of the	11, , , ,	,, , ,	,,,,,	Kalamazoo Coll	23.4-26.5	42	49
Sacred Heart	22.7-25.8		26	Marygrove Coll	21.0-24.1	•	34
Northeastern Univ	20.0-23.1	35	40	Mercy College		21	26
Radcliffe College	25.4-28.5	55	46	Mich State Univ		46	52
	23.7-26.8		42	Mich Technologi-	21, 1-21, 5	10	-, 52
Regis College Simmons College	22.8-25.9		38	cal University	22.3-25.3	_ 40	47
	22.2 -25.3		47	Nazareth Coll	18.5-21.6	40	18
Smith College	17.7-20.8	06	10	Northern Mich	10.5-21.0		-, 10
Springfield Coll	11,1-20.0	00	10	University	18.7-21.8	. 16	19
State Coll at	18.1-21.2	21	25	Siena Heights	10.1-21.0	10	17
Bridgewater State Coll at	10, 1-21, 2		-, 23	College	19.2-22.3		21
Fitchburg	17.7-20.8	08	11	Univ of Detroit	22.1-25.2	_ 37	-,43
State Coll at	17.1-20.0	-,00	-,11	Univ of Mich	22.8-25.9		47
Framingham	17.8-20.9	33	37	Wayne State Univ	20.3-23.4		37
State Coll at	17.0-20.7	55	5 .	Western Mich	20.5-25.4	31	-, 51
Lowell	16.2-19.3	07	09	University	20.0-23.1	_ 34	39
State Coll at North	10.2-17.5	01	07	Oniversity	20.0-25.1	54	3 7
	18.7-21.9	07	11	Minnesota			
Adams				Augsburg Coll	21.4-24.5	_ 31	37
State Coll at Salem	16.2-19.3	10 15	12 19	Bemidji State Coll			15
St. Coll at Westfield St. Collat Worcester	16.1-19.2	16	17	Bethel College	20.7-23.8		25
		13	17	Carleton Coll	24.5-27.6		41
Stonehill College Suffolk Univ	20.4-23.5 15.8-18.9	23	25	Coll of St. Bene-	21.3-21.0	-,55	
Tufts Univ	23.7-26.8	23	30	dict	17.6-20.7		13
Univ of Mass	21.6-24.7	38	44	Coll of St.	11,0 20,1		
	22.6-25.7	56	43	Catherine	21.2-24.3		31
Wellesley Coll	21.5-24.5		42	Coll of St.	21.2-21.3		31
Wheaton Coll Wheelock Coll	15.4-18.4		07	Scholastica	21.1-24.3		21
		17	01		21.1-21,5		61
Williams Coll	25.2-28.3	17		Coll of St. Theresa	21.3-24.4		28
Worcester Poly-	23 0 27 0	. 30		Coll of St.	L1. J-67, T		2.0
technic Institute	23.9-27.0	39		Thomas	19.7-22.8	- 25	
Mishiman					17.1-22.0	4.3	
Michigan College	14 7 10 0	17	20	Concordia Coll-	20.9-24.0	- 26	32
Adrian College	16.7-19.8	17	20	ege	.LU. 7727. U	-,20	56

^{*}Predicted mean t l standard error of estimate.

	Predicted 1		Predicted M				
	ACT-C Mean	Con	stant	A	CT-C Mean		
College Name	Interval*	Men	Women	College Name	Interval*	Men	Women
Gustavus Adolphus				Maryville Coll of			
College	21.9-25.0		39	the Sacred Heart	20.4-23.5		15
Hamline University	21.6-24.7	26	32	Missouri Valley			
Macalester College	21.9-25.0		39	College	17.2-20.3	08	11
Mankato State Coll		26	30	Northeast Miss-			
Moorhead State Coll	18.8-21.9		20	ouri State Teach-			
St. Cloud State Coll	18.9-22.0	21	25	ers College	15.7-18.8	+.07	+.05
St. John's Univ	21.0-24.1	09		Northwest Mo			
St. Mary's College	20.0-23.1	15		State College	17.9-21.0	13	16
St. Olaf College	22.2-25.3	30	36	Park College	17.5-20.6	13	17
Univ of Minn	21.2-24.3	43	49	Rockhurst Coll	20.2-23.3	20	25
Winona State College	17.7-20.8	11	14	St. Louis Univ	22.7-25.7	28	35
· ·				Southeast Mo			
Mississippi				State College	16.3-19.4	12	15
Alcorn A & M Coll	13.7-16.8	+.02	+.01	Southwest Mo			
Belhaven College	20.3-23.3	15	20	State Coll	16.3-19.4	13	15
Blue Mountain Coll	18.5-21.6		37	Tarkio College	18.8-21.9	05	09
Delta State Univ	18.8-21.8	25	28	Univ of Mo at			
Jackson State Coll	13,5-16.6	÷.02	+.02	Kansas City	20.3-23.4	13	18
Millsaps College	21.2-24.3	33	38	Univ of Mo at			
Mississippi Coll	20.1-23.2	27	32	Columbia	20.8-24.0	46	51
Univ of Southern				Washington Univ	23.0-26.1		33
Mississippi	18.7-21.7	26	29	Webster Coll	19.4-22.5		19
Miss State Coll		f		Westminster Coll			29
for Women	18,0-21,0		44	Wm Jewell Coll	19.0-22.1	11	16
Miss State Univ	19.0-22.1	34	38				
Tougaloo College	15.2-18.3	05	07	Montana			
Univ of Miss	20.6-23.6	40	45	Carroll College	20.4-23.5	04	09
William Carey				Coll of Great	•		
College	19.1-22.2	13	17	Falls	18.3-21.4	07	05
				Eastern Montana			
Missouri				College	18.6-21.7	20	23
Central Methodist				Montana Coll of			
College	20.9-24.0	25	31	Mineral Science			
Central Missouri				and Technology	17.4-20.5	25	28
State College	16.1-19.1	18	20	Montana State			
Culver-Stockton				University	20.3-23.4	31	36
College	20.5-23.6	12	17	Northern Montana			
Drury College	19.9-22.9		26	College	18.2-21.3	13	17
Fontbonne College	18.6-21.7		16	Rocky Mountain	-		-
Harris Teachers				College	20,0-23.1	12	17
College	16.0-19.1	09	11	Western Montana			
Lincoln Univ	13.5-16.6	04	03	College	15.4-18.5	+.01	.00
Lindenwood Coll				· - -			
for Women	18.8-21.9		39	Nebraska			

^{*}Predicted mean ! 1 standard error of estimate.

	Predicted N				Predicted M		
	CT-C Mean	Con	stant		ACT-C Mean	Cons	tant
College Name	Interval*	Men	Women		Interval*	Men	Women
College of St. Mary	19.6-22.7		17	Monmouth College	18.2-21.3	18	21
Concordia Teachers				Montclair State			
College	19.9-23.0	19	-,24	College	18,5-21.6	13	17
Creighton Univ	23.1-26.2	32	-,39	Newark Coll of			•
Dana College	18.9-22.0	10	14	Engineering	21.9-25.0	4l	47
Doane College	22.5-25.6	16	23	Paterson State			
Duchesne Coll	21.7-24.8		19	College	18.4-21.5	30	34
Hastings College	19.8-22.9	22	27	Princeton Univ	25.1-28.2	25	
Midland College	20.1-23.2	24	29	Rider Coll	17.9-21.0	41	44
Municipal Univ of				Rutgers, The			
Omaha	17.9-21.0	26	29	State Univ-			
Chadron State				Queen's Campus	20.7-23.8	39	45
College	17.3-20.4	06	09	St. Peter's Coll	19.4-22.5	39	44
Kearney State Coll	18.2-21.3	12	15	Seton Hall Univ	19.8-22.9	32	36
Peru State College	16.8-19.9		+.02	Stevens Institute	-,	•	• • •
Wayne State Coll	18.5-21.5	12	15	of Technology	24.5-27.6	34	
Nebraska Wesleyan	10,5 01,5	•		Trenton State	210-21,0	31	
University	20.8-23.9	23	-,28	College	18.1-21.2	22	25
Union College	17.0-20.1	16	19	Upsala College	19.7-22.8	39	44
Univ of Nebraska	21.1-24.2	35	40	opsaia conege	17.1-22.0	5)	11
Only of Nedlaska	21,1-24,2	55	-, 10	New Mexico			
Nevada				Eastern N. M.			
Univ of Nevada	18.3-21.4	25	-,29	University	19.4-22.5	21	-,25
Only of Nevada	10, 3-21.4	-, 25	-, 27	New Mexico	17.4-22.3	21	-,25
New Unmarchine				Highlands Univ	15.9-19.0	+.02	.00
New Hampshire Dartmouth Coll	24.2-27.3	22		N. M. Institute	13. 7-17. 0	T. UZ	.00
Keene State Coll	16.8-19.9		23	of Mining and			
Mount St. Mary	10.0-17.7	20	23	Technology	19.5-22.5	34	38
-	23 2 24 4		2.4				
College	21.3-24.4	1/	24	N. M. State Univ	20.4-23.5	37	42
Plymouth State Coll	18.6-21.7	16	20	Western N. M.		00	02
Rivier College	17.9-21.0	10	07	University	16.1-19.2	.00	02
St. Anselm's Coll	19.6-22.7	10	15	Univ of N. M.	21.1-24.1	35	41
Univ of New Hamp-	21 4 24 5	40	47	M = 371-			
shire	21.4-24.5	40	46	New York	10 0 00 0		
				Adelphi College	19.9-23.0	13	18
New Jersey				Alfred Univ	22.2-25.3	22	
Caldwell Coll for				Bard College	20.6-23.7	-,08	13
Women	19.3-22.4		27	Brooklyn College	•		
Coll of St. Elizabeth	21.0-24.1		28	City Univ of N Y	21.3-24.4	37	44
Drew University	20.5-23.6	+.03	02	Canisius College	20.5-23.6	17	22
Fairleigh Dickinson				City Coll-City			
University	17.5-20.6	31	34	Univ of N. Y.	21.0-24.1	4l	47
Georgian Court Coll	21.4-24.6		28	Clarkson Coll			
Glassboro State Coll	16.6-19.7	25	28	of Technology	23.2-26.3	35	42
Jersey City State				Colgate Univ	23.7-26.7	20	
College	16.4-19.5	23	26	Coll of Mount			
				St. Vincent	24.0-27.1		44
*Predicted mean †	l standard	error	of estima	ate.			

Predicted Measures				Predicted Measures			
А	CT-C Mean		stant	A	CT-C Mean	Cons	tant
College Name	Interval*	Men	Women	College Name	Interval*	Men	Women
Coll of New Rochelle	22.9-26.0		48	Rochester Institute			
Coll of St. Rose	19.8-22.9		17	of Technology	17.8-20.9	24	28
Columbia Univ	21.4-24.5	26	32	Rosary Hill College	22.2-25.3		35
Cooper Union	24.5-27.6	36	44	Russell Sage Coll	19.8~22.9	17	2 2
Cornell Univ	24.1-27.2	29	37	St. Bernadine of			
D'Youville Coll	20.9-24.0		23	Siena College	17.9-21.0	22	
Elmira College	20,3-23,4	21	27	St. Bonaventure			
Finch College	14.8-17.8		11	Univ	21.1-24.2	19	24
Fordham Univ	20.8-23.9	28	33	St. Francis Coll	18.3-21.4	17	
Good Counsel Coll	21.1-24.2		38	St. John Fisher			
Hamilton College	23.4-26.5	10		College	20.1-23.2	30	
Hartwick College	21.2-24.3	26	31	St. John's Univ	19.3-22.4	29	33
Hobart & Wm.				St. Joseph's Coll			
Smith Colleges	22.8-25.9	28	34	for Women	20,4-23.5		25
Hofstra Univ	20.0-23.1		21	St. Lawrence Univ	23.0-26.1	19	25
Houghton Coll	22.1-25.2	26	32	Skidmore Coll	20.0-23.1		35
Hunter Coll-City				State Univ of New	-		
Univ of New York	20.3-23.4	40	46	York-Coll at			
Iona College	20.1-22.2			Albany	20,7-23.8	32	37
Ithaca College	19.2-22.2	11	15	State Univ of New			
Keuka College	21.6-24.7		41	York-Coll at			
Le Moyne Coll	22.9-26.0		26	Brockport	17.5-20.6	-,10	-,13
Long Island Univ	16.5-19.6		31	State Univ of N Y			
Manhattan Coll	22.4-25.5	30		Coll at Buffalo	18.4-21.4	23	26
Manhattanville Coll				State Univ of N Y			_
of the Sacred Heart	23.5-26.6		38	Coll at Cortland	16.2-19.3	22	26
Marymount College	22.6-25.7		35	State Univ of N Y		- 4	
Mills Coll of Educa-				Coll at Fredonia	18.1-21.2	16	19
tion	15.9-19.0		03	State Univ of N Y			•-
Mount St. Joseph			. 00	Coll at Geneseo	19.1-22.2	27	32
Teachers Coll	14.8-17.9		+.23	State Univ of New			
Nazareth Coll of	1/ 5 10 /			York-Coll at New	17 1 00 4		
Rochester	16.5-19.6		11	Paltz	17.3-20.4	10	13
New York Univ	21.1-24.2		32	State Univ of N Y	10 2 21 4	2.4	2.5
Niagara Univ	20.0-23.1	16	-,21	Coll at Oneonta	18.3-21.4	24	27
Notre Dame Coll	23 / 24 2		2.4	State Univ of N Y	10 0 22 1		
of Staten Island	21.6-24.7	5.0	24	Coll at Oswego	19.0-22.1	24	28
Pace College	18.4-21.5	59	62	State Univ of N Y			
Polytechnic Insti-	24 5 22 (40		Coll at Platts-	10 0 21 0	2.2	2.7
tute of Brooklyn	24.5-27.6	40	4.1	burgh	18.8-21.9	23	27
Pratt Institute	20.0-23.1	36	41	State Univ of N Y	14 4 10 7	0.5	0.0
Queens Coll-City	21 2 24 2	2.4	40	Coll at Potsdam	16.6-19.7		08
Univ of New York	21.2-24.3	34	40	Syracuse Univ	21.6-24.7	32	38
Rensselaer Poly-	25 2 20 2	2 =	44	State Univ of N Y at Buffalo	22.2-25.3	24	33
technic Institute	25.2-28.3	33	44	ar DullaiO	22.2-23.3	-, 20	دد

^{*}Predicted mean t 1 standard error of estimate.

ACT-C Mean Constant ACT-C Mean Constant College Name Interval* Men Women College Name Interval* Men Women Univ of Rochester 23.8-26.9 23 30 Univ of N C 20.0-23.1 29 34 Vassar College 22.9-25.9 47 Wake Forest Coll 21.9-25.0 30 36 Wagner College 21.0-24.1 29 34 Western Carolina Wells College 22.2-25.3 33 College 16.8-19.9 18 20 Yeshiva Univ 20.9-24.0 +.02 04 Winston-Salem Teachers Coll 13.6-16.6 02 02 North Carolina Agricultural and North Dakota
Univ of Rochester 23.8-26.92330 Univ of N C 20.0-23.12934 Vassar College 22.9-25.947 Wake Forest Coll 21.9-25.03036 Wagner College 21.0-24.12934 Western Carolina Wells College 22.2-25.333 College 16.8-19.91820 Yeshiva Univ 20.9-24.0 +.0204 Winston-Salem Teachers Coll 13.6-16.60202 North Carolina
Vassar College 22.9-25.9 47 Wake Forest Coll 21.9-25.0 30 36 Wagner College 21.0-24.1 29 34 Western Carolina Wells College 22.2-25.3 33 College 16.8-19.9 18 20 Yeshiva Univ 20.9-24.0 +.02 04 Winston-Salem Teachers Coll 13.6-16.6 02 02 North Carolina
Vassar College 22.9-25.9 47 Wake Forest Coll 21.9-25.0 30 36 Wagner College 21.0-24.1 29 34 Western Carolina Wells College 22.2-25.3 33 College 16.8-19.9 18 20 Yeshiva Univ 20.9-24.0 +.02 04 Winston-Salem Teachers Coll 13.6-16.6 02 02 North Carolina
Wells College 22.2-25.3 33 College 16.8-19.9 18 20 Yeshiva Univ 20.9-24.0 +.02 04 Winston-Salem Teachers Coll 13.6-16.6 02 02 North Carolina
Yeshiva Univ 20.9-24.0 +.0204 Winston-Salem Teachers Coll 13.6-16.60202 North Carolina
Yeshiva Univ 20.9-24.0 +.0204 Winston-Salem Teachers Coll 13.6-16.60202 North Carolina
North Carolina
Agricultural and North Dakota
Technical Coll Jamestown Coll 20.7-23.82530
of N C 14.3-17.40204 N. D. State Univ 19.7-22.73842
Appalachian State Dickinson State
Teachers Coll 16.2-19.31618 College 16.0-19.10709
Atlantic Christian Mayville State
College 17.3-20.42023 College 16.2-19.30609
Belmont Abbey Minot State Coll 16.4-19.50912
College 18.6-21.817 Valley City State
Bennett College 14.0-17.113 College 16.5-19.61316
Catawba College 17.1-20.22123 Univ of N. Dakota 18.7-21.83034
Davidson College 21.6-24.721
Duke University 23.3-26.32431 Ohio
East Carolina Coll 15.8-18.91719 Antioch College 23.5-26.62634
Elizabeth City State Ashland College 19.4-22.51822
College 13.9-17.0 +.05 +.05 Athenaeum of
Elon College 17.4-20.52124 Ohio, The 15.6-18.7 +.36
Fayetteville State Baldwin-Wallace
College 13.7-16.8 +.05 +.04 College 21.3-24.43036
Greensboro Coll 19.3-22.42125 Bluffton College 15.5-18.60204
Guilford College 17.7-20.82225 Bowling Green
High Point College 18.0-21.10306 State Univ 20.0-23.13540
Johnson C. Smith . Capital Univ 21.5-24.62733
University 14.0-17.10102 Case Institute of
Lenoir-Rhyne Coll 20.5-23.62428 Technology 24.6-27.63543
Livingstone Coll 14.4-17.5 +.01 .00 Central State Univ 13.7-16.80607
Meredith College 19.9-23.044 Coll of Mount St.
North Carolina Joseph on the
Coll at Durham 14.9-18.02021 Ohio 21.0-24.127
N C State Univ at Coll of St. Mary
Raleigh 20,3-23,43944 of the Springs 21,9-25.01723
Pembroke State Coll of Wooster 23.7-26.83139
College 16.5-19.60406 Denison Univ 23.8-26.93542
Pfeiffer College 19.3-22.32226 Cleveland State
Queens College 20.5-23.548 Univ 20.6-23.72834
St. Augustines Coll 15.1-18.20810 Heidelberg Coll 20.1-23.22529
Salem Gollege 20.5-23.546 Hiram College 22.9-26.01926
Shaw University 13.8-16.9 +.09 +.08 John Carroll Univ 21.0-24.12026

^{*}Predicted mean 1 standard error of estimate.

	Predicted Mea			Predicted N	Measur	es
<u> </u>	ACT-C Mean C			ACT-C Mean	Cons	tant
College Name	Interval* Me		College Name	Interval*	Men	Women
Kent State Univ	19.0-22.13		Oklahoma Coll of			
Kenyon College	22.1-25.2		Liberal Arts	14.3-17.4	20	22
Lake Erie College	19.9-23.0	1722	Oklahoma State			
Marietta College	20,5-23.6	1146	University	20.2-23.3	43	48
Mary Manse College	17.0-20.1)912	Panhandle State			
Miami University	20.8-23.9:	3743	College	16.3-19.4	13	
Mount Union College	19.7-22.8	2429	Phillips Univ	19.5-22.6	20	24
Muskingum College	21.4-24.5	2733	Southeastern			
Notre Dame College	23.0-26.1	33	State College	16.4-19.4	06	08
Oberlin College	22.8-25.9	1926	Southwestern			
Ohio Northern Univ	21.5-24.6	2228	State College	18,2-21,3	27	
Ohio State Univ, The	21.0-24.1	1449	Univ of Oklahoma	21.0-24.1	46	52
Ohio Univ	20.1-23.2:	3843	Univ of Tulsa	19.9-23.0	35	40
Ohio Wesleyan Univ	22.2-25.3:	3542				
Otterbein College	19.5-22.6:	2631	Oregon			
Our Lady of Cin-			Cascade College	19.2-22.3	07	11
cinnati College	20.9-24.0	29	Eastern Oregon			
St. John Coll of			College	17.9-21.0	16	19
Cleveland	19.5-22.6	13	George Fox Coll	18.4-21.5	20	24
Univ of Akron, The	18.9-22.0		Lewis & Clark			
Univ of Cincinnati	20.6-23.7		College	22,2-25,3	-,30	37
Univ of Dayton	21.6-24.7:		Linfield Coll	20.4-23.5	23	
Univ of Toledo, The	19.2-22.3'		Marylhurst Coll	17.6-20.6		13
Ursuline Coll for	= /		Mount Angel			
Women	21.4-24.5	26	College	18.0-21.1	+.23	+.21
Western Coll for	,, -	• • •	Mount Angel			
Women	17.8-20.9	19	Seminary	19.0-22.1	+.34	
Western Reserve Coll			Oregon Coll of	•		
Wilmington College	19.2-22.3		Education	19.1-22.2	-,20	24
Wittenberg Univ	22.5-25.6		Oregon State U	21.0-24.1	48	
Xavier Univ	19.9-23.0		Pacific Univ	20.1-23.2	22	
Youngstown Univ	18.9-22.0		Portland State		•	•
roungstown only	10., 22.0 .		College	19.8-22.9	37	41
Oklahoma			Reed College	24.9-28.0	24	
Bethany Nazarene			Southern Oregon			•
College	18.0-21.1	1519	College	18.4-21.5	23	27
Central State Coll	16.6-19.7:		Univ of Oregon	21.5-24.6	33	
East Central State	2010 2721 - 1	21	Univ of Portland	20.4-23.5	10	
College	17.1-20.2	1316	Willamette Univ	22.5-25.6	27	
Langston Univ	14.4-17.5		,, 111111111111111111111111111111111111	-	·	•
Northeastern State	21.1-11,5		Pennsylvania			
Colle ge	16.7-19.8	1517	the state of the s	22.1-25.2	33	39
Northwestern State	.u. (-1).u ~,	11	Allegheny Coll	23.3-26.4	17	
College	18.1-21.2	1215	Alliance College	20.8-23.9	10	
Oklahoma Baptist	10.1-21.2	13	Beaver College	20.6-23.7		46
University	19.3-22.4	2428	Bryn Mawr Coll	23.4-26.5		41
	17.3-66.4	20		24.9-28.0	32	
Oklahoma City	21 1 24 2	14 40	Bucknell Univ	21. /-20.0	56	10
University	21.1-24.2	1449	Carnegie-Mellon University	23.6-26.7	37	44
	nean ± 1 standar			20,0-20,1		-,

	Predicted M	leasur	es		Predicted N	Measur	e s
_	ACT-C Mean	Cons			ACT-C Mean	Cons	tant
College Name	Interval*	Men	Women	College Name	Interval*	Men	Women
Cedar Crest College	19.7-22.8		38	Cheyney State Coll	13.9-17.0	.04	. 03
Chatham College	21.7-24.8		35	Clarion State Coll	16.3-19.4	28	31
Chestnut Hill Coll	23.5-26.5		41	East Stroudsburg			
Coll Misericordia	19.8-22.9		25	State Coll	16.5-19.6	24	27
Dickinson Coll	24.4-27.5	30	38	Edinboro State			
Drexel Institute of				College	16.6-19.6	20	22
Technology	22.7-25.8	32	38	Ind Univ of Penna			
Duquesne Univ	20.8-23.9	24	29	School of Educa-			
Eastern Baptist Coll	21.1-24.1	16	-,21	tion	20,0-23,0	29	34
Elizabethtown Coll	19.7-22.8	28	33	Kutztown State Coll	19.1-22.2	27	31
Franklin & Marshall				Lock Haven State			
College	20.6-23.6	27		College	16.3-19.3	17	19
Gannon College	18.0-21.1		28	Mansfield State Col		23	26
Geneva College	19.5-22.6		29	Millersville State	-		
Gettysburg Coll	22.4-25.5		40	College	18.7-21.8	28	32
Grove City Coll	21.2-24.3		39	Shippensburg State			
Haverford College	23,6-26.7	16	. ,	College	19.8-22.9	25	30
Immaculata College	22.0-25.1		32	Slippery Rock State			
Juniata College	21.5-24.6	-,25		College	18.6-21.7	30	34
King's College	15.9-19.0	09	• • •	West Chester State			
Lafayette College	22.3-25.4	32		College	18.8-21.9	27	31
La Salle College	19. 2-22. 3	34		Susquehanna Univ	20.7-23.8	28	33
Lebanon Valley Coll	20.8-23.9		23	Swarthmore College	26.2-29.3	32	42
Lehigh Univ	22.8-25.9	28		Temple University		23	28
Lincoln Univ	17.9-21.0		+.02	Thiel College	22.0-25.1	25	31
Lycoming College	20.3-23.4		39	Univ of Penna	22,4-25,5	27	34
Maywood College	18.8-21.9	•••	21	Univ of Pittsburgh	22.5-25.6	31	37
Mercyhurst Coll	18.0-21.2		12	Univ of Scranton	17.3-20.4	15	
Moore Coll of Art	16.9-20.0		43	Ursinus College	23.8-26.9	37	45
Moravian College	19.3-22.4	23		Villa Maria College	18.7-21.8		11
Mount Mercy Coll	20.6-23.7	•	26	Villanova Univ	18.6-21.6	28	33
Muhlenberg College	21.5-24.5	27		Washington & Jef-			
Pennsylvania Military		•	•••	ferson College	21.4-24.5	20	
College	16.4-19.5	14		Waynesburg Coll	19.2-22.2	38	43
Penn State Univ	21.0-24.1		48	Westminster Coll	21.0-24.1	21	27
Philadelphia Coll of		•	•	Wilkes College	19.2-22.3	10	14
Textiles and Science	17,6-20.7	-, 14	17	Wilson College	21.7-24.8		47
Rosemont College	22.4-25.5		31	· ·			
St. Francis College	20.6-23.7	26		Rhode Island			
St. Joseph College	21.0-24.1		39	Brown Univ	23.1-26.1	24	31
St. Vincent Coll	19.4-22.5	07	, ,	Providence Coll	21.1-24.2	22	
Seton Hill Coll	21.7-24.8	• • •	25	Rhode Island Coll	14.5-17.6	01	02
Bloomsburg State				Rhode Island School			
College	16.3-19.4	18	~.20	of Design	20.4-23.5	35	41
California State	, . -			Salve Regina Coll	18.2-21.3		17
College	16.4-19.5	18	20	Univ of Rhode Island		-,43	48
•	- , -						

^{*}Predicted mean + 1 standard error of estimate

		Predicted N	Predicted Measures				
_	ACT-C Mear	n Con	stant	<u>, I</u>	ACT-C Mean	Cons	tant
College Name	Interval*	Men	Women	College Name	Interval*	Men	Women
South Carolina							
Allen Univ	14.3-17.4	+.02	.00	Carson-Newman			
Benedict College	14.3-17.4	07	08	College	19,6-22.7	23	27
Citadel-Military Coll	l			Christian Bros.			
of South Carolina	18.7-21.6	28		College	20.2-23.3	23	
Clemson Univ	19.2-22.3	35	39	David Lipscomb			
Coker College	14.6-17.7		02	College	20.3~23.4	30	35
Coll of Charleston	21.0-24.1	10	15	East Tenn State			
Columbia College	18.2-21.3		40	University	16.9-20.0	18	20
Converse College	20.1-23.2		32	Fisk Univ	18.5-21.6	13	17
Erskine College	17.2-20.3	10	-, 12	George Peabody			
Furman University	20.9-24.0	22	28	College	18.7-21.8	.00	04
Lander College	17.3-20.4	03	07	King College	18.8-21.9	10	14
Limestone Coll	17.4-20.5	10	13	Knoxville Coll	14.8-17.9	06	08
Newberry College	17,3-20.4	16	-, 18	Lambuth Coll	17.6-20.7	14	17
Presbyterian Coll	16.3-19.4	17	19	Lane College	14.9-18.0	+.03	+.01
South Carolina St.				Lemoyne Coll	14.8-17.9	06	08
College	14.3-17.4	05	06	Lincoln-Memorial			
Univ of South Caro-				University	19.1-22.2	+.04	.00
lina	19.7-22.8	40	45	Maryville Coll	20.3-23.4	21	27
Winthrop College	17.6-20.6		41	Memphis State			
Wofford College	19.5-22.6	16	-	University	18.9-22.0	25	29
•		,		Middle Tenn State			
South Dakota				University	16.5-19.6	16	18
Augustana Coll	21.6-24.7	34	40	Scaritt College	16.4-19.5	+.18	+. 16
Black Hills State				Siena College	17.4-20.5		12
College	16.8-19.9	07	09	Southern Mission-			
Dakota Wesleyan				ary College	18.3-21.4	19	-,22
University	15.9-19.0	03	05	Southwestern at	•		
Huron College	16.3-19.3	+.04	+.02	Memphis	22.3-25.4	24	31
Northern State	-			Tenn. State Univ	14.5-17.6	07	08
College	18,2-21.3	16	20	Tenn Technologi-			
Sioux Falls Coll	18.6-21.7		08	cal Univ	18.4-21.5	-,31	34
South Dakota School				Tusculum Coll	17.5-20.5	12	15
of Mines and				Union University	17.4-20.5	11	14
Technology	21.6-24.6	41	48	Univ of Chattan-			
South Dakota State				ooga	19.3-22.4	13	17
University	19.4-22.5	36	41	Univ of Tenn	19.5-22.6	32	37
Univ of S. Dakota	20.6-23.7		39	Univ of the South	21.2-24.3	19	
Yankton College	18.7-21.7		22	Vanderbilt Univ	24.8-27.9	30	38
_							
Tennessee_			•	Texas			
Austin Peay State			-	Abilene Christian			
College	16.7-19.8	15	17	College	19.5-22.6	30	35
Belmont College	17.4-20.5		10	Austin College	21.6-24.7	25	-,31
Bethel College	18.9-22.0		09	Baylor Univ	21.8-24.9	36	43

^{*}Predicted mean 1 1 standard error of estimate.

	Predicted		res		Predicted	Measu	res
<u> </u>	CT-C Mean				ACT-C Mean	n Cons	tant
College Name	Interval*			n College Name	Interval*	Men	Women
Bishop College	13.4-16.5	+.13	+. 12	Texas Luteran Coll			21
East Texas Baptist				Texas Southern Univ	v 13.6-16.7	06	07
College	17.6-20.7	06	08	Texas Technologi-			
East Texas State				cal College	20.5-23.6	47	52
University	18.2-21.3	17	20	Texas Wesleyan			
Hardin-Simmons				College	17.0-20.1	02	05
University	19.8-22.9	25	29	Univ of Texas at			
Howard Payne Coll	19.2-22.3	11	15	El Paso	17.0-20.1	25	28
Huston - Tillotson				Texas Woman's			
College	15.0-18.1	03	05	University	17.6-20.7		42
Incarnate Word Coll	17.1-20.2		09	Trinity University	19.7-22.8	16	21
Jarvis Christian				Univ of Houston	20.6-23.7	46	51
College	13.3-16.4	+.12	+.12	Univ of St. Thomas	21.0-24.1	08	14
Lamar State Coll of				Univ of Texas	22.4-25.5	50	5 6
Technology	19.1-22.2	38	42	Wayland Baptist			
McMurry College	16.8-19.9	14	17	College	21.9-24.9	14	18
Mary Hardin-Baylor				West Texas State U	16.0-19.1	13	15
College	16.8-19.9	16	18	Wiley College	13.2-16.3	+.10	+.10
Midwestern Univ	16.9-20.0	23	25				
North Texas State U	18,4-21,5	31	34	Utah			
Our Lady of the Lake				Brigham Young U	19.0-22,1	36	41
College	16.7-19.8	.00	03	Univ of Utah	19.9-23.0	34	39
Pan American Coll	16.4-19.5	14	16	Utah State Univ	17.3-20.3	23	26
Prarie View A & M				Westminster Coll	17.7-20.8	12	15
College	13.3-16.4	06	06				
Rice University	26.9-30.0	41	51	Vermont			
Sacred Heart Domin-				Bennington Coll	21.0-24.0	34	41
ican College	20.3-23.4		16	Middlebury Coll	25.1-28.2	17	25
St. Edward's Univ	16.7-19.7	07		Norwich Univ	18.6-21.7	13	
St. Mary's Univ	18.5-21.5	24	27	St. Michael's	•		
Sam Houston State				College	19.4-22.5	10	
College	17.1-20.2	25	28	Trinity Coll	17.3-20.4		15
Southern Methodist				Univ of Vermont &			
University	21.4-24.5	35	4l	State Agricultural			
Southwest Texas				College	21.1-24.2	26	32
State Coll.	18.6-21.7		25				
Southwestern Univ	22.4-25.5	22	-,28	Virginia			
Stephen F. Austin				Bridgewater Coll	20.4-23.5		23
State College	18.9-22.0		28	Coll of Wm & Mary	22.9-26.0	25	32
Sul Ross State Coll	16.8-19.8		11,	Eastern Mennonite			
Texas' A & M Univ	19.1-22.2		38	College	19.5-22.6	15	19
Texas Christian U	20.6-23.7		38	Emory & Henry			
Texas College	14.3-17.4	+.07	+.05	College	19.7-22.8	10	15
Texas Coll of Arts				Hampden-Sydney			
and Industries	18.7-21.8	21	25	College	21.8-24.9	16	

^{*}Predicted mean ! 1 standard error of estimate.

	Predicted	Measu	res		Predicted Measur	
	ACT-C Mean	n Con	stant	<u>A</u>		stant
College Name	Interval*	Men	Women		Interval* Men	Women
Hampton Institute	16.6-19.6	05	08	Walla Walla Coll	18.6-21.719	~.23
Hollins College	21.7-24.8		4 0	Wash State Univ	21.3-24.442	48
Longwood College	19.1-22.2		39	Western Wash		
Lynchburg College	19.4-22.5	21	26	State Coll	18.8-21.922	26
Madison College	18.3-21.4	36	40	Whitman Coll	24.7-22.721	28
Mary Baldwin Coll	21.3-24.4		47	Whiteworth Coll	21.1-24.120	26
Mary Washington						
Coll of the U of				West Virginia		
Virginia	21.9-25.0		58	Alderson-Broaddus	•	
Medical Coll of				College	17.2-20.312	15
Virginia (School				Bethany College	21.3-24.410	16
of Nursing)	20.0-23.1		78	Bluefield State Coll	13.9-17.0 +.09	+.09
Randolph-Macon				Concord College	16.2-19.316	18
College	17.9-20.9	13		Davis and Elkins		
Randolph-Macon				College	17.1-20.217	19
Women's Coll	21.5-24.6		51	Fairmont State		
Roanoke College	20,5-23.6	16	21	College	16.8-19.921	23
St. Paul's Coll	13.9-17.0	01	02	Glenville State		
Sweet Briar Coll	23.4-26.5		45	College	16.3-19.407	09
Univ of Richmond	19.6-22.7	24	28	Marshall Univ	16.2-19.221	23
Univ of Virginia	21.8-25.0	27	33	Morris Harvey		
Virginia Military				College	19.5-22.511	15
Institute	21.3-24.4	34		Salem College	17.2-20.307	
Virginia Polytech-				Shepherd College	17.0-20.117	
nic Institute	20.0-23.1	34	39	West Liberty		
Virginia State Coll	14.0-17.1	08	09	State College	16.8-19.919	21
Virginia Union Univ	16.6-19.7	17	20	West Virginia Insti		
Washington & Lee				tute of Technology		24
University	23,5-26.6	14		West Virginia State		
3			-	College	14.3-17.303	04
Washington				West Virginia U	20,1-23,238	
Central Wash State				Wheeling College	19.2-22.323	
College	19.5-22.6	22	26	0 5		
Eastern Wash State	,			Wisconsin		•
College	18.0-21.1	19	22	Alverno College	20.7-23.8	24
Fort Wright Coll				Beloit College	23.7-26.724	
-	19.8-22.9		05	Cardinal Stritch		•
Gonzaga University		08	13	College	20.4-23.5	22
Pacific Lutheran		•	•	Carroll College	21.7-24.828	
University	16,5-19.6	17	19	Carthage College	20.4-23.517	
St. Martin's Coll	18.4-21.5	.00	03	Edgewood Coll of		
Seattle Pacific Coll		25	30	the Sacred Heart	20.5-23.4	12
Seattle Univ	22.3-25.4	23	29	Lawrence Univ	22.9-26.009	
Univ of Puget Sound		31	36	Marquette Univ	23.5-26.629	
Univ of Washington		45	51	Mount Mary Coll	20.4-23.4	23
om, or washington			•			•

^{*}Predicted mean ! 1 standard error of estimate.

	Predicted N	1easur	es
	ACT-C Mean	Con	stant
College Name	Interval*	Men	Women
Northland College	15.0-19.1	06	08
Ripon College	24.4-27.5	24	-, 32
St. Norbert College	22.2-25.3	23	29
Stout State University		12	15
Univ of Wisconsin	21.1-24.2	44	
Viterbo College	19.7-22.8	•	06
Wisc State Univ-	-,,,,,		• • •
Eau Claire	18.6-21.7	24	28
Wisc State Univ-	10,0 21,1	• • •	
La Crosse	17.9-21.0	21	25
Wisc State Univ-	11.7 51.0		.20
Oshkosh '	19.5-22.6	23	27
Wisc State Univ-	17.5-22.0	65	21
River Falls	17.9-21.0	14	18
Wisc State Univ-	11, 7-21, 0	-, 14	10
Stevens Point	18.5-21.6	18	21
Wisc State Univ-	10, 5-21, 0	10	21
	16.7-19.8	07	09
Superior	10.7-19.0	07	09
Wisc State Univ-	17 7 20 0	20	22
Whitewater	17.7-20.8	29	32
Wisc State Univ-	15 / 10 7	0.0	10
Platteville	15.6-18.7	09	10
Wyoming			
Univ of Wyoming	19.7-22.8	30	35
Service Academies			
U. S. Air Force			
Academy	23.0-26.1	34	
U. S. Coast Guard			
Academy	21.6-24.7	24	
U. S. Merchant			
Marine Academy	19.8-22.9	31	
U.S. Military			
Academy	21.8-24.9	38	
U. S. Naval			
Academy	22.5-25.6	39	

Table C

Expectancy Table

Estimated Probability That Obtained First Year GPA Will Be

	Below	C (2.00)	2.00	- 2.99	В (3.0	0) or Above
Predicted GPA	Men	Women	Men	Women	Men	Women
3.6	1	0	16	14	83	86
3.5	1	0	20	19	79	81
3.4	1	1	25	23	74	76
3.3	2	1	30	29	68	70
3.2	3	2	34	34	63	64
3.1	4	3	40	40	56	57
3.0	6	4	44	46	50	50
2.9	8	6	48	51	44	43
2.8	10	8	53	56	37	36
2.7	13	11	61	59	26	30
2.6	17	14	62	62	21	24
2.5	21	19	62	62	17	19
2.4	26	24	61	62	13	14
2.3	32	30	58	59	10	11
2.2	37	36	55	56	8	8
2.1	44	43	50	51	6	6
2.0	50	50	46	46 '	4	4
1.9	5 6	57	. 41	40	3	3
1.8	63	64	35	36	2	2
1.7	68	70	31	29	1	1
1.6	74	76	25	23	1	1
1.5	79	81	20	19	1	0
1.4	83	86	17	14	0	0
1.3	87	89	13	11	0	. 0
1.2	90	92	10	8	0	0
1.1	92	94	8	6	0	0
1.0	94	. 96	6	4	0	0
0.9	96	97	4	3	0	0
0.8	97	98	3	2	0	0
0.7	98	99	2	1	0	0
0.6	99	99	1	1	0	0
0.5	99	100	1	0	0	0

Procedure: Use Tables A-1 (Men) or A-2 (Women) and Table B to obtain a predicted GPA. Find the result in the first column of Table C. Read across to determine the estimated probability of obtaining a GPA below a C, between C and B, and B or above.

References

- American College Testing Program. Technical report. Iowa City, Iowa:

 Author, 1965.
- Astin, A. W. An empirical characterization of higher educational institutions. Journal of Educational Psychology, 1962, 53, 224-235.
- Astin, A. W. Some characteristics of student bodies entering higher educational institutions. <u>Journal of Educational Psychology</u>, 1964a, 55, 267-275.
- Astin, A. W. Distributions of students among higher educational institutions. Journal of Educational Psychology, 1964b, 55, 276-287.
- Astin, A. W. Who goes where to college? Chicago: Science Research
 Associates, 1965.
- Astin, A. W., & Holland, J. L. The Environmental Assessment Technique:

 A way to measure college environments. <u>Journal of Educational</u>

 Psychology, 1961, 52, 308-316.
- Bureau of the Census. <u>Current population reports</u>, Series P-25, No. 286.

 Washington, D.C.: U. S. Government Printing Office, 1964.
- Buros, O. K. (Ed.) The sixth mental measurements yearbook. Highland Park, N. J.: The Gryphon Press, 1965.
- Cartter, A. M. (Ed.) American universities and colleges. Washington,
 D.C.: American Council on Education, 1964.
- Cass, J., & Birnbaum, M. Comparative guide to American colleges.

 New York: Harper & Row, 1965.

- Chase, C. I., & Barritt, L. S. A table of concordance between ACT and SAT. Journal of College Student Personnel, 1966, 7, 105-108.
- College Entrance Examination Board. Manual of freshman class profiles, 1967-69. New York: Author, 1967.
- Gleazer, E. M., Jr. (Ed.) American junior colleges. Seventh edition.

 Washington, D.C.: American Council on Education, 1967.
- Goldsen, R. K., Rosenberg, M., Williams, R. M., Jr., & Suchman, E. A., What college students think. Princeton, N.J.: Van Nostrand, 1960.
- Hills, J. R., Klock, J. A., & Bush, M. L. Counselor's guide to Georgia colleges. Atlanta: University System of Georgia, 1965.
- Holland, J. L. A theory of vocational choice. <u>Journal of Counseling</u>
 Psychology, 1959, 6, 35-45.
- Holland, J. L. The psychology of vocational choice. Waltham, Mass.:

 Blaisdell, 1966.
- Holland, J. L., & Richards, J. M., Jr. Academic and nonacademic accomplishment: Correlated or uncorrelated? <u>Journal of Educational</u>

 Psychology, 1965, 56, 165-174.
- Hoyt, D. P. Three years of research in the American College Testing

 Program. Paper read at the Iowa Psychological Association annual
 meeting, Des Moines, Iowa, 1964.
- Hoyt, D. P. College grades and adult accomplishment: A review of research.

 The Educational Record, 1966, 47, 70-75.
- Hoyt, D. P. Description and prediction of diversity among four-year colleges.

 Measurement and Evaluation in Guidance, 1968a, 1, 16-26.

- Hoyt, D. P. Description and prediction of diversity among junior colleges.

 Personnel and Guidance Journal, 1968b, 46, 997-1004.
- Hoyt, D. P. Generalized academic prediction in four-year colleges.

 Personnel and Guidance Journal, 1968c, in press.
- Jex, F. B. Predicting academic success beyond high school. Salt Lake

 City: Office of Institutional Studies, University of Utah, 1966.
- Johnson, R. H., Swanson, E. O., Joselyn, E. G. & Berdie, R. F.

 Minnesota test norms and expectancy tables. St. Paul: Minnesota

 State Department of Education, 1961 (Revised, 1967).
- Lavin, D. E. The prediction of academic performance. New York:

 Russell Sage Foundation, 1965.
- Lunneborg, C. E. A research review of the Washington pre-college testing program. Journal of Educational Measurement, 1966, 3, 157-166.
- McConnell, T. R. & Heist, P. The diverse college student population.

 In Sanford, N. (Ed.) The American College. New York: John Wiley,

 1962.
- Munday, L. A. Comparative predictive validities of the American College

 Tests and two other scholastic aptitude tests. ACT Research Reports.

 No. 6. Iowa City, Iowa: American College Testing Program, 1965.
- Office of Education. Digest of educational statistics. OE-10024-65.

 Washington, D.C.: U. S. Government Printing Office, 1965a.
- Office of Education. Projections of educational statistics to 1974-75. OE10030-65. Washington, D.C.: U. S. Government Printing Office,
 1965b.

- Office of Education. Opening fall enrollment in higher education. Circular No. 796. Washington, D.C.: U. S. Government Printing Office, 1966.
- Richards, J. M., Jr., Holland, J. L., & Lutz, S. The assessment of student accomplishment in college. <u>Journal of College Student</u>

 Personnel, 1967, 8, 360-365.
- Zytowski, D. G. Some notes on the history of vocational counseling. The Vocational Guidance Quarterly, 1967, 16, 53-55.

Appendix

Detailed Procedures for Developing Regression Constants
Notation

Composite is the average of the four ACT standard scores.

- HSA is the average of the student's most recent term grades in English, mathematics, social studies, and natural science.

 Senior year grades are not used. A four-point system is employed (A=4, B=3, C=2, D=1, F=0).
- GPA is first year college grade point average. A four-point system is assumed (A=4, B=3, C=2, D=1, F=0).
- The X's are standard scores reported for four-year colleges by

 Astin (1965). X₁ = Intellectualism; X₂ = Estheticism;

 X₃ = Status; X₄ = Pragmatism; X₅ = Masculinity; X₆ =

 Selectivity; X₇ = Size; X₈ = Realistic; X₉ = Science; X₁₀ =

 Social; X₁₁ = Conventional.
- Step 1. Predict the mean ACT Composite score for the college in question by the formula:

Predicted ACT-C mean =
$$-.198380X_{1} + .176915X_{2} + .151613X_{5} + .241432X_{6} + .150621X_{9} - 5.115500$$

Step 2. Predict the mean HSA for the college in question by the formula:

Predicted HSA mean = $.006830X_2 + .009512X_4 - .014413X_5 + .009050X_6 - .009037X_8 + .003937X_9 + .004894X_{11} + 2.197900$

- Step 3. Predict the mean GPA for the college in question by the formula: Predicted GPA mean = $.012854X_2 + .008094X_5 + .011097X_6 - .006939X_7 + .008122X_9 + .016611X_{10} + .005158X_{11} - .515200$
- Step 4. Determine for the college in question the proportion of females among first-time students from Opening fall enrollment in higher education 1965, (U.S. Office of Education, 1966).
- Step 5. Compute predicted ACT Composite mean, HSA mean, and GPA mean for each sex by the following equations:
 - a. Predicted ACT-C mean (males) = Predicted ACT-C mean (Step1) + .33 times proportion of females.
 - Predicted ACT-C mean (females) = Predicted ACT-C (males) -. 33.
 - b. Predicted HSA mean (males) = Predicted HSA mean (Step 2) .33 times proportion of females.
 - Predicted HSA mean (females) = Predicted HSA mean (males) + .33.
 - c. Predicted GPA mean (males) = Predicted GPA mean (Step 3) .29 times proportion of females.
 - Predicted GPA mean (females) = Predicted GPA mean (males) + .29.
- Step 6. Compute regression constants for each sex by the following formulas:
 - a. Constant (males) = Predicted GPA (males) .0544 (Predicted ACT-C males) .4441 (Predicted HSA, males).
 - b. Constant (females) = Predicted GPA (females) .0600 (Predicted
 ACT-C females) .4748 (Predicted HSA, females).

ACT Research Reports

This report is the twenty-sixth in a series published by the Research and Development Division of the American College Testing Program. The research reports have been deposited with the American Documentation Institute, ADI Auxiliary Publications Project, Photoduplication Service, Library of Congress, Washington, D. C. 20540. (ADI Document numbers and prices are given below.) Photocopies and 35 mm. microfilms are available at cost from ADI; order by ADI Document number. Advance payment is required. Make checks or money orders payable to: Chief, Photoduplication Service, Library of Congress. Printed copies are available from the Research and Development Division, American College Testing Program.

Reports preceded by an asterisk (*) in the list below are available only from ADI.

- *No. 1 A Description of American College Freshmen, by C. Abe, J. L. Holland, S.W. Lutz, & J. M. Richards, Jr., (ADI Doc. 8554; photo, \$8.75; microfilm, \$3.00)
- *No. 2 Academic and Nonacademic Accomplishment: Correlated or Uncorrelated? by J. L. Holland, & J. M. Richards, Jr., (ADI Doc. 8555; photo, \$3.75; microfilm, \$2.00)
- *No. 3 A Description of College Freshmen: I. Students with Different Choices of Major Field, by C. Abe, & J. L. Holland (ADI Doc. 8556; photo, \$7.50; microfilm, \$2.75)
- *No. 4 A Description of College Freshmen: II. Students with Different Vocational Choices, by C. Abe, & J. L. Holland (ADI Doc. 8557; photo, \$7.50; microfilm, \$2.75)
- *No. 5 A Description of Junior Colleges, by J. M. Richards, Jr., L. M. Rand, & L. P. Rand (ADI Doc. 8558; photo, \$3.75; microfilm, \$2.00)
- *No. 6 Comparative Predictive Validities of the American College

 Tests and Two Other Scholastic Aptitude Tests, by L. Munday

 (ADI Doc. 8559; photo, \$2.50; microfilm \$1.75)
 - No. 7 The Relationship Between College Grades and Adult Achievement: A Review of the Literature, by D. P. Hoyt (ADI Doc. 8632; photo, \$7.50; microfilm, \$2.75)
 - No. 8 A Factor Analysis of Student "Explanations" of Their Choice of a College, by J. M. Richards, Jr. & J. L. Holland (ADI Doc. 8633; photo, \$3.75; microfilm, \$2.00)

- No. 9 Regional Differences in Junior Colleges, by J. M. Richards, Jr., L. P. Rand, & L. M. Rand
 (ADI Doc. 8743; photo, \$2.50; microfilm, \$1.75)
- No. 10 Academic Description and Prediction in Junior Colleges, by D. P. Hoyt, & L. Munday (ADI Doc. 8856; photo, \$3.75; microfilm, \$2.00)
- No. 11 The Assessment of Student Accomplishment in College, by J. M. Richards, Jr., J. L. Holland, & S. W. Lutz (ADI Doc. 8955; photo, \$3.75; microfilm, \$2.00)
- No. 12 Academic and Nonacademic Accomplishment in a Representative Sample taken from a Population of 612,000, by J. L. Holland, & J. M. Richards, Jr. (ADI Doc. 8992; photo, \$3.75; microfilm, \$2.00)
- No. 13 The Prediction of Student Accomplishment in College, by J. M. Richards, Jr., J. L. Holland, & S. W. Lutz (ADI Doc. 9020; photo, \$5.00; microfilm, \$2.25)
- No. 14 Changes in Self-Ratings and Life Goals Among Students at Colleges with Different Characteristics, by R. W. Skager, J. L. Holland, & L. A. Braskamp (ADI Doc. 9069; photo, \$3.75; microfilm, \$2.00)
- No. 15 Can Computers Write College Admissions Tests? by J. M. Richards, Jr.

 (ADI Doc. 9174; photo, \$2.50; microfilm, \$1.75)
- No. 16 Changes in Self-Ratings and Life Goals as Related to Student

 Accomplishment in College, by R. W. Skager, & L. A. Braskamp

 (ADI Doc. 9214; photo, \$2.50; microfilm, \$1.75)
- No. 17 Family Income and the Characteristics of College-Bound Students, by L. L. Baird
 (ADI Doc. 9378; photo, \$3.75; microfilm, \$2.00)
- No. 18 Predicting a Student's Vocational Choice, by J. L. Holland, & S. W. Lutz
 (ADI Doc. 9433; photo, \$2.50; microfilm, \$1.75)
- No. 19 The Educational Goals of College-Bound Youth, by L. L. Baird
 (ADI Doc. 9472; photo, \$5.00; microfilm, \$2.25)
- No. 20 Who Goes Where to Junior College? by J. M. Richards, Jr. & L. A. Braskamp (ADI Doc. 9571; photo, \$3.75; microfilm, \$2.00)

ACT Research Reports (cont'd.)

No. 21 Predicting Student Accomplishment in College from the ACT

Assessment, by J. M. Richards, Jr., & S. W. Lutz

(ADI Doc. 9594; photo, \$6.25; microfilm, \$2.50)

- No. 22 The Undecided Student: How Different is He? by L. L. Baird (ADI Doc. 9812; photo, \$3.75; microfilm, \$2.00)
- No. 23 The Effects of Selecting College Students by Various Kinds of High School Achievement, by L. L. Baird & J. M. Richards, Jr. (ADI Doc. 9955; photo, \$3.75; microfilm, \$2.00)
- No. 24 Do They Do What They Say They Will Do? by S. W. Lutz (ADI Doc. 9988; photo, \$5.00; microfilm, \$2.25)
- No. 25 Changes in the Vocational Plans of College Students: Orderly or Random? by J. L. Holland & D. R. Whitney (ADI Doc. 10051; photo, \$3.75; microfilm, \$2.00)
- No. 26 The Flow of High School Students to Schools, Colleges, and Jobs, by L. L. Baird & J. L. Holland (ADI Doc. 10053; photo \$6.25; microfilm, \$2.50)

•	-		•
		ı	



