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ABSTRACT

Since the occurrence of overprediction of college grades for blacks has been found primarily in studies using SAT scores as predictors, a study was initiated to investigate the overprediction phenomenon when the ACT was used in conjunction with high school grades as a predictor of college GPA. College freshman-year GPA was used as the criterion variable. Separate regression equations and multiple R's were determined for males and females. Predicted college GPA for black and white males and females were determined by use of same-sex regression equations. Comparison of actual vs predicted college GPA were made for the races and sexes separately. No strong and consistent overprediction patterns for black males and females were revealed. In the few instances of substantial overprediction, it was primarily a matter of overestimating black female grades by means of regression equations based on high school grades. When same-sex regression equations were used, black female GPAs were most frequently overpredicted, but when total regression equations were used, black and white male GPAs were most frequently overpredicted. The greatest frequency of underprediction occurred with white female college GPAs. (KM)

# The Overprediction Phenomenon Among Black Collegians: Some Preliminary Considerations

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Despite continual assertions of test bias on the part of such standardized tests as the Scholastic Aptitude Test and the American College Testing Program (ACT) for predicting college grades of racial minority students, particularly blacks (e.g., Clark and Plotkin, 1971; Borup, 1971), sufficient evidence has appeared in the literature to indicate that such tests apparently predict college GPA for blacks as well (or as poorly) as for whites (see for example, reviews by Thomas and Stanley, 1969; Kendrick and Thomas, 1970; Cramer and Sevic, 1971; Stanley, 1971). Moreover, there is some evidence that high school average (HSA) or rank (HSR) may not be as valid (relative to standardized test scores) for predicting college GPA for blacks (particularly males) as for whites (Thomas and Stanley, 1969; Thomas, 1972).

In many of the studies of the validity of standardized tests (particularly the SAT) there has been evidence that regression equations based on the optimal weighting of HSR or HSA and test scores tend to <u>overpredict</u> the college grades of black students (Cleary, 1968; Wilson, 1969; Astin, 1970; Sedlacek, 1971; Davis and Kerner-Hoeg, 1971; Temp, 1971). Moreover, the overprediction phenomenon appears to have generalized to employment situations as well (Tenopyr,

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1967; Grant and Bray, 1970; Campbell, 1972; Shore and Marion, 1972). There is evidence that the overprediction phenomenon for blacks on standardized tests may not be constant at all levels of the test score intervals (Campbell, 1970). More specifically, blacks who score relatively low on standardized tests may receive higher predicted criterion scores (relative to actual criterion scores) than blacks who score relatively high on the standardized tests. This may be due in part, to the level of difficulty of the tests since there is also evidence that a less difficult test may be more predictively valid for black students than a more difficult one (Hills and Stanley, 1970).

## Purpose

Since the occurrence of overprediction for blacks in academic settings has been found primarily in studies using SAT scores as predictors, the present study was initiated to investigate the overprediction phenomenon when the ACT, another commonly employed admissions test, was used in conjunction with high school grades as a predictor of college GPA. The preliminary investigation focused on the following questions:

1. Does overprediction (or conversely, underprediction) occur more often for blacks than for whites when the ACT is used or a predictor of college GPA?
2. When high school grades are used alone, does overprediction occur more often for black students than for white students?
3. When ACT scores are used in combination with high school grades, does overprediction occur more often for black students than for whites?
4. Are there sex differences in the occurrence of over-and-under-prediction of college GPA?

## Procedure

Examination of the list of four year predominately white colleges and universities that participated in the 1972 Basic Research Service of the American College Testing Program resulted in the selection of nine institutions where a relatively sufficient number of black male and female students were admitted in the 1971 freshman classes.[1] Except for one college, the institutions were state-supported universities.

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[1] Unfortunately, the n's were reduced somewhat because of lack of data for some students in respect to the relevant predictor variables.

The institutions were located in Illinois, Louisiana, Michigan, New York, and Ohio.

Variables

The American College Testing Program Examination (ACT) was used as the standardized test predictor of college GPA. The tests yield five scores: (1) English usage (ACT-E), (2) mathematics usage (ACT-M), (3) social studies readings (ACT-SS), (4) natural science readings (ACT-NS), and (5) a composite score (ACT-C).

High school grades were also used as predictors of college GPA. As a regular procedure of the ACT validation program, persons taking the ACT battery are requested to report the grades they have received in high school courses in four areas: English (HSA-E), mathematics (HSA-M), social studies (HSA-SS, and natural science (HSA-NS). Moreover, the combined average across curricular areas was used as a predictor (HSA-Total). Past research has indicated that there is a high correlation between self-reported high school grades and high school transcripts for ACT participants (Davidson, 1963; Hoyt, 1963; Richards et al, 1966).

College freshman-year grade-point average (CPA) was used as the criterion variable. College GPA was reported on a five-point scale (i.e., A = 4, B = 3, C = 2, D = 1, and F = 0). Data on the predictor and criterion variables were obtained separately for males and females in each race classification.

The zero-order validity coefficients were determined for all predictor variables (i.e., the four ACT tests and four HSA's). The regression constants, regression coefficients, and multiple R's were

estimated for (1) the four ACT test scores used alone, (2) the four HSA's used alone, (3) the four ACT test scores used in combination with the four HSA's, and (4) ACT-Composite used in combination with HSA-Total to predict college GPA. Separate regression equations and multiple R's were determined for males and females.

Finally, predicted college GPA for black and white male and females were determined by use of same-sex regression equations and total regression equations (i.e., regression equations derived across race and sex). Comparison of actual vs predicted college GPA were made for the races and sexes separately.

## Results

The N's, means, and standard deviations for college GPA, the four ACT tests, and the four high school grades for black and white male and females are presented in Table 1. In general, white students surpassed their black counterparts on all criterion and predictor variables. Except in the cases of ACT-E and college GPA males made higher scores than females. In the majority of the cases, black and white students displayed similar variability on the criterion and predictor variables. Similar results were obtained for college GPA, composite scores on the ACT, and HSA-total: white students had higher scores on the criterion and predictor variables, males slightly surpassed females on the ACT-C, and females in most instances had higher total HSA's than males (Table 2).

Tables 3 and 4 indicate the constants, regression coefficients, zero-order validities, and multiple R;s for the four ACT tests and high school grades, respectively. Because of the large differences in the number of black and white student samples, direct comparison of black and white zero-order and multiple correlation coefficients is a hazardous venture. However, comparisons of ACT-tests vs HSA within race (i.e., comparing Tables 3 and 4) revealed that for both black males and females, R's for the four ACT tests showed parity with R's for HSA. More specifically, in four instances ACT multiple R's surpassed those for HSA, in four cases the HSA R's were higher, and in one instance the multiple R's were identical. Similar results were found by Munday (1965) when the ACT battery was used at five southern predominantly black colleges that participated in the 1964 Research Services. For the white male and female student samples, the optimal weighting of the high school grades produced higher R's than the R's for ACT in the majority of the cases, a typical finding for most validity studies of white student populations.

In most instances, the optimal weighting of the four ACT tests and the four HSA's produced substantial gains in the multiple R's above the R's for either ACT or the four HSA's employed separately (Table 5). Keeping in mind the caution of comparing black and white validity coefficients, it was observed that the multiple R's for black students were generally higher than those for whites, especially for black males. Moreover, multiple R's for black males surpassed those for black females in five of the nine cases, a slightly contrary finding from most validity studies where females validity coefficients are found to be typically higher than those for males (Seashore, 1954;

Stanley, 1962). The multiple R's for white males were higher than those for white females in only one of the nine comparisons.

In contrast, when the multiple R's were determined for the optimal weighting of ACT-composite scores and total HSA, white male and female R's surpassed those of their black counterparts (Table 6).

To determine the patterns of over-and underprediction of college grades, two sets of predicted college GPA's were obtained for black and white male and females. First, regression equations based on black and white students of the same sex were used to generate predicted college grades for the student samples. Secondly, common or total regression equations based on the total student freshman population for a given college were used to predict college GPA for black and white male and female students. Separate regression equations were developed for the four HSA's, the four ACT scores, and the four HSA's and four ACT scores used in combination. Similar data was obtained for ACT composite scores, HSA-total, and the composite ACT scores used in combination with HSA-Total. Since the trends were quite similar for the four ACT tests and ACT composites, only the results of the latter are reported in Table 7.

Many of the discrepancies between actual and predicted GPA's were more apparent than real. Differences ranged from as little as one-hundreth of a grade-point to as large as exceeding one-third of the actual college GPA. For example, when a deviation of at least one-third of a grade-point from the actual GPA was arbitrarily set as the criterion for "significant" under-or overprediction, only six cases were obtained, all of which were instances of overprediction of black student's GPA's. Moreover, in the few observations of

overprediction that were noted, it was primarily a case of overprediction of black females' college GPA by means of same-sex regression equations or total regression equations based on total HSA. For the two cases of overprediction of black males' GPA, one was by means of the same-sex regression equations based on total HSA and the other by means of the total regression equation based on ACT composites used in combination with total HSA.

Although only slight discrepancies were found between actual and predicted college GPA for many of the comparisons, it was of interest to determine whether or not there was a trend suggesting greater occurrences of overprediction for black students than for whites. Figures 1 (a and b) and 2 (a and b) indicate the frequency of occurrence of over-and underprediction by means of same-sex and total regression equations, respectively. In the case of predicting college GPA by use of same-sex regression equations (Figure 1a), black female GPA was more commonly overpredicted than the GPA's for the other comparison groups, regardless of whether the equations were based on total HSA, ACT-composite, or total HSA used in combination with ACT-composite. For black males, the most frequent occurrence of overprediction was found when the regression equations were based on total HSA alone. White male GPA was overpredicted more often when the ACT-composite was employed alone in the regression equation. No instances of overprediction was found for white female students. Conversely, examination of the frequency of underprediction (Figure 1b) revealed that white males and females were more often underpredicted when the same-sex regression equations were derived from the optimal

weighting of total high school average. Equations based on ACT composite and ACT-composite used in combination with total HSA tend to yield more frequent occurrences of underprediction for black males and white females than for black females and white males.

For regression equations based on the total student sample, white males GPA was more frequently overpredicted than the GPA's for the other groups, except in the case of equations based on total HSA alone (Table 2a). White females remained as the group with the least frequent occurrence of overprediction for all three types of total regression equations. Moreover, examination of the occurrence of underprediction (Figure 2b) indicated that white female GPA was consistently underpredicted more often than the GPA's for the other groups. Except for regression equations based on total HSA alone, the frequencies of underprediction of black male and female GPA's were intermediate between occurrences for white males and females.

## Discussion

The preliminary investigation of the occurrence of overprediction failed to reveal any strong and consistent patterns in the case of black males and females. However, it was observed that in the few instances of substantial overprediction, it was primarily a matter of overestimating black female grades by means of regression equations based on high school grades. When same-sex regression equations were used, black females GPA's were most frequently overpredicted whereas in the case of regression equations derived for the

total student samples, the occurrence of overprediction of black female GPA was surpassed by the occurrence of overpredictions of black male GPA (in the case of regression equations for total HSA and ACT-composite) and white male GPA (in the case of ACT-C and combined regression equations). One surprising finding was the greatest frequency of underprediction of white female college GPA. However, conclusive statements of prediction bias must be forestalled until the equality of the separate regression equations can be empirically tested.

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TABLE 1

N's, Means, and Standard Deviations for Criterion and Predictor Variables for Black and White Students at Nine Integrated Colleges

| College | N | College GPA $\bar{X}$ | College GPA SD | ACT-E $\bar{X}$ | ACT-E SD | ACT-M $\bar{X}$ | ACT-M SD | ACT-SS $\bar{X}$ | ACT-SS SD | ACT-NS $\bar{X}$ | ACT-NS SD | HSA-E $\bar{X}$ | HSA-E SD | HSA-M $\bar{X}$ | HSA-M SD | HSA-SS $\bar{X}$ | HSA-SS SD | HSA-NS $\bar{X}$ | HSA-NS SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 74 | 2.01 | .64 | 14.70 | 4.89 | 13.92 | 5.55 | 13.95 | 5.88 | 15.87 | 3.70 | 2.78 | .80 | 2.05 | .81 | 2.72 | .80 | 2.41 | .78 |
| | 111 | 2.41 | .76 | 20.96 | 4.15 | 19.90 | 5.85 | 20.54 | 5.50 | 21.93 | 4.82 | 2.99 | .75 | 2.32 | .85 | 2.90 | .73 | 2.61 | .73 |
| | 57 | 1.98 | .69 | 12.44 | 4.77 | 14.28 | 5.90 | 14.72 | 6.79 | 16.07 | 4.88 | 2.25 | .69 | 1.83 | .83 | 2.60 | .82 | 2.26 | .72 |
| | 100 | 2.15 | .76 | 18.86 | 4.11 | 21.18 | 5.40 | 21.01 | 5.78 | 22.25 | 5.70 | 2.58 | .81 | 1.96 | .70 | 2.78 | .88 | 2.35 | .78 |
| B | 46 | 1.82 | .75 | 15.48 | 6.03 | 14.89 | 6.24 | 14.35 | 6.33 | 16.00 | 4.91 | 3.28 | .58 | 2.65 | .90 | 3.30 | .84 | 2.87 | .83 |
| | 989 | 2.47 | .78 | 21.29 | 4.25 | 21.04 | 6.16 | 20.42 | 6.34 | 21.61 | 5.77 | 3.12 | .76 | 2.71 | .99 | 3.15 | .84 | 2.88 | .87 |
| | 30 | 2.08 | .69 | 16.40 | 4.96 | 15.83 | 5.97 | 16.63 | 6.07 | 19.23 | 4.94 | 3.03 | .67 | 2.63 | .93 | 3.17 | .79 | 3.17 | .79 |
| | 1334 | 2.27 | .85 | 19.59 | 4.56 | 23.34 | 5.84 | 20.96 | 6.34 | 23.57 | 5.72 | 2.78 | .85 | 2.55 | 1.05 | 2.97 | .89 | 2.68 | .93 |
| C | 60 | 1.84 | .93 | 12.42 | 5.77 | 12.32 | 5.54 | 10.02 | 6.24 | 13.15 | 4.96 | 2.80 | .88 | 2.33 | .86 | 2.63 | .91 | 2.42 | .79 |
| | 432 | 2.44 | .87 | 19.11 | 4.55 | 18.16 | 6.11 | 16.90 | 6.85 | 18.56 | 5.73 | 2.93 | .78 | 2.52 | 1.02 | 2.85 | .89 | 2.66 | .89 |
| | 57 | 1.77 | .86 | 11.46 | 5.18 | 14.70 | 4.94 | 11.33 | 6.32 | 15.23 | 5.14 | 2.53 | .87 | 2.44 | 1.05 | 2.74 | .94 | 2.46 | .71 |
| | 492 | 2.02 | .92 | 17.10 | 5.13 | 19.88 | 6.36 | 17.88 | 6.85 | 20.63 | 5.99 | 2.51 | .85 | 2.37 | 1.03 | 2.71 | .87 | 2.32 | .93 |
| D | 25 | 2.14 | .67 | 13.44 | 5.87 | 12.24 | 6.02 | 14.08 | 7.15 | 15.44 | 6.12 | 2.64 | .64 | 2.16 | .85 | 2.72 | .74 | 2.28 | .68 |
| | 377 | 2.54 | .68 | 20.20 | 3.91 | 17.89 | 5.91 | 19.98 | 5.67 | 20.24 | 5.19 | 3.09 | .68 | 2.21 | .91 | 2.93 | .77 | 2.64 | .80 |
| | 17 | 1.99 | .45 | 13.18 | 3.94 | 14.53 | 3.36 | 14.88 | 5.84 | 16.35 | 3.66 | 2.59 | .62 | 2.29 | .99 | 2.53 | .88 | 2.35 | .93 |
| | 329 | 2.27 | .68 | 17.91 | 3.96 | 20.30 | 5.78 | 20.71 | 5.39 | 21.71 | 5.16 | 2.58 | .75 | 2.01 | .89 | 2.76 | .81 | 2.33 | .82 |
| E | 43 | 2.43 | .63 | 16.77 | 5.72 | 16.28 | 7.52 | 15.82 | 7.69 | 16.74 | 5.18 | 3.21 | .77 | 2.47 | .91 | 3.30 | .60 | 2.51 | .99 |
| | 807 | 2.70 | .76 | 22.20 | 3.58 | 23.02 | 5.94 | 22.95 | 5.05 | 23.72 | 5.13 | 3.44 | .58 | 2.87 | .85 | 3.44 | .61 | 3.05 | .74 |
| | 41 | 2.40 | .69 | 17.32 | 4.98 | 18.78 | 7.24 | 19.85 | 6.98 | 20.02 | 5.63 | 2.90 | .70 | 2.49 | 1.08 | 3.10 | .77 | 2.63 | .86 |
| | 654 | 2.68 | .71 | 20.65 | 3.85 | 26.29 | 5.01 | 24.23 | 4.76 | 26.47 | 4.78 | 3.15 | .65 | 2.86 | .88 | 3.40 | .61 | 3.01 | .76 |

NOTE: College GPA and HSA are on a five point scale. Data for females are presented in first two rows for each college and males in the second two rows. The data for blacks are presented in the first row of each sex classification.

TABLE 1

N's, Means, and Standard Deviations for Criterion and Predictor Variables for Black and White Students Nine Integrated Colleges (con't)

| College | N | GPA | | ACT-E | | ACT-M | | ACT-SS | | ACT-NS | | HSA-E | | HSA-M | | HSA-SS | | HSA-NS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| F | 137 | 1.86 | .95 | 11.51 | 4.90 | 14.37 | 5.61 | 11.93 | 6.66 | 14.80 | 5.09 | 2.92 | .60 | 2.21 | 1.07 | 2.66 | .85 | 2.40 | .88 |
| | 634 | 2.39 | .80 | 17.90 | 4.67 | 19.79 | 5.27 | 19.65 | 5.83 | 19.48 | 5.56 | 3.24 | .60 | 2.70 | .98 | 3.22 | .68 | 2.77 | .81 |
| | 52 | 1.86 | .88 | 10.85 | 5.45 | 15.54 | 5.18 | 12.60 | 7.01 | 15.94 | 4.47 | 2.67 | .83 | 1.92 | .84 | 2.77 | .68 | 2.25 | .62 |
| | 535 | 1.95 | .95 | 15.99 | 4.78 | 20.63 | 4.95 | 20.60 | 5.68 | 20.77 | 5.70 | 3.10 | .63 | 2.51 | .97 | 3.18 | .69 | 2.63 | .81 |
| G | 33 | 2.04 | .61 | 17.73 | 4.86 | 17.27 | 4.61 | 18.27 | 4.76 | 18.03 | 3.34 | 3.24 | .71 | 2.42 | .94 | 3.21 | .78 | 2.79 | .78 |
| | 784 | 2.70 | .60 | 23.49 | 3.49 | 25.15 | 4.84 | 24.53 | 4.61 | 25.39 | 4.58 | 3.51 | .58 | 3.07 | .79 | 3.53 | .63 | 3.16 | .73 |
| | 29 | 1.92 | .55 | 14.90 | 4.19 | 18.66 | 7.18 | 17.04 | 4.81 | 18.93 | 4.94 | 2.62 | .73 | 2.41 | .95 | 2.79 | .77 | 2.35 | .86 |
| | 965 | 2.50 | .66 | 21.37 | 3.71 | 26.43 | 4.84 | 24.35 | 4.57 | 26.39 | 4.58 | 3.04 | .69 | 2.72 | .92 | 3.24 | .72 | 2.81 | .82 |
| H | 118 | 1.53 | .81 | 13.69 | 5.19 | 12.29 | 5.50 | 11.65 | 6.14 | 13.53 | 5.12 | 2.69 | .77 | 2.23 | .84 | 2.68 | .84 | 2.40 | .75 |
| | 567 | 2.34 | .86 | 20.26 | 4.40 | 19.94 | 6.13 | 19.23 | 6.60 | 20.51 | 5.47 | 2.85 | .76 | 2.49 | 1.02 | 2.94 | .85 | 2.60 | .80 |
| | 105 | 1.32 | .76 | 11.34 | 5.84 | 14.63 | 5.36 | 11.76 | 6.63 | 14.30 | 5.33 | 2.39 | .69 | 2.26 | .88 | 2.64 | .80 | 2.30 | .68 |
| | 698 | 1.92 | .95 | 18.10 | 4.78 | 21.15 | 6.32 | 19.33 | 6.64 | 21.70 | 5.90 | 2.49 | .82 | 2.25 | 1.01 | 2.61 | .91 | 2.34 | .88 |
| I | 78 | 1.54 | .73 | 11.72 | 4.88 | 11.68 | 4.12 | 9.33 | 5.21 | 13.54 | 4.12 | 2.85 | .77 | 2.33 | .85 | 2.87 | .67 | 2.55 | .80 |
| | 347 | 2.49 | .82 | 19.12 | 4.60 | 17.10 | 5.72 | 16.84 | 6.36 | 18.89 | 5.19 | 3.07 | .82 | 2.53 | .95 | 3.06 | .84 | 2.65 | .92 |
| | 51 | 1.69 | .76 | 9.31 | 4.62 | 12.33 | 5.06 | 9.06 | 5.65 | 12.84 | 4.50 | 2.28 | .70 | 2.26 | .96 | 2.67 | .86 | 2.45 | .73 |
| | 291 | 2.07 | .82 | 15.75 | 5.23 | 17.07 | 6.30 | 15.35 | 6.58 | 19.22 | 5.66 | 2.40 | .86 | 2.30 | 1.01 | 2.69 | .88 | 2.31 | .92 |

NOTE: College GPA and HSA are on a five point scale. Data for females are presented in first two rows for each college and males in the second two rows. The data for blacks are presented in the first row of each sex classification.

TABLE 2

N's, Means, and Standard Deviations for College GPA, ACT COMPOSITE and HSA for Black and White Students at Nine Integrated Colleges

| College | N | College GPA $\bar{X}$ | College GPA SD | ACT COMPOSITE $\bar{X}$ | ACT COMPOSITE SD | HSA TOTAL $\bar{X}$ | HSA TOTAL SD | College | N | College GPA $\bar{X}$ | College GPA SD | ACT COMPOSITE $\bar{X}$ | ACT COMPOSITE SD | HSA TOTAL $\bar{X}$ | HSA TOTAL SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 92 | 1.97 | .64 | 14.96 | 3.77 | 2.44 | .49 | F | 149 | 1.86 | .96 | 13.09 | 4.40 | 2.53 | .57 |
| | 132 | 2.39 | .74 | 20.83 | 3.84 | 2.73 | .55 | | 651 | 2.37 | .81 | 19.26 | 4.23 | 2.98 | .54 |
| | 71 | 1.99 | .66 | 14.61 | 4.32 | 2.22 | .47 | | 56 | 1.81 | .92 | 13.68 | 4.47 | 2.41 | .41 |
| | 120 | 2.15 | .75 | 20.79 | 4.21 | 2.44 | .55 | | 548 | 1.94 | .95 | 19.58 | 4.17 | 2.85 | .53 |
| B | 55 | 1.74 | .80 | 14.98 | 4.78 | 2.96 | .61 | G | 39 | 2.07 | .62 | 17.97 | 3.67 | 2.90 | .59 |
| | 1153 | 2.47 | .78 | 21.03 | 4.76 | 2.93 | .70 | | 870 | 2.69 | .60 | 24.67 | 3.43 | 3.31 | .47 |
| | 35 | 1.93 | .79 | 16.43 | 4.42 | 2.92 | .59 | | 32 | 1.90 | .53 | 17.53 | 4.20 | 2.56 | .59 |
| | 1484 | 2.24 | .84 | 21.74 | 4.71 | 2.70 | .75 | | 1039 | 2.48 | .66 | 24.66 | 3.43 | 2.94 | .55 |
| C | 67 | 1.85 | .90 | 12.31 | 4.30 | 2.60 | .65 | H | 142 | 1.56 | .84 | 12.99 | 4.42 | 2.47 | .56 |
| | 504 | 2.45 | .86 | 18.52 | 5.75 | 2.74 | .69 | | 663 | 2.32 | .84 | 19.81 | 4.73 | 2.70 | .66 |
| | 62 | 1.71 | .85 | 13.29 | 4.43 | 2.49 | .66 | | 121 | 1.33 | .76 | 13.13 | 4.45 | 2.38 | .53 |
| | 570 | 2.01 | .90 | 18.80 | 4.99 | 2.45 | .74 | | 800 | 1.88 | .94 | 19.84 | 4.81 | 2.40 | .66 |
| D | 27 | 2.06 | .70 | 13.85 | 4.77 | 2.38 | .46 | I | 90 | 1.54 | .70 | 11.67 | 3.52 | 2.64 | .57 |
| | 432 | 2.51 | .68 | 19.50 | 4.06 | 2.70 | .56 | | 384 | 2.48 | .80 | 17.98 | 4.46 | 2.82 | .68 |
| | 27 | 1.99 | .44 | 13.59 | 3.89 | 2.24 | .68 | | 57 | 1.74 | .85 | 10.98 | 3.78 | 2.46 | .61 |
| | 375 | 2.25 | .66 | 20.13 | 3.75 | 2.42 | .52 | | 337 | 2.08 | .81 | 17.07 | 4.91 | 2.42 | .69 |
| E | 50 | 2.42 | .62 | 16.22 | 5.73 | 2.86 | .52 | | | | | | | | |
| | 886 | 2.68 | .77 | 22.93 | 3.85 | 3.19 | .48 | | | | | | | | |
| | 51 | 2.40 | .67 | 18.73 | 4.85 | 2.75 | .51 | | | | | | | | |
| | 705 | 2.67 | .69 | 24.44 | 3.65 | 3.10 | .49 | | | | | | | | |

NOTE: College GPA and HSA are on a five-point scale (i.e., A=4, B=3, C=2, D=1, F=0). Data for females are presented in the first two rows for each college and males in the second two rows. The data for blacks are presented in the first fow of each sex classification.

TABLE 3

Regression Parameters, Zero-Order Validity Coefficients, and Multiple R's Four ACT Subtests for Black and White Students at Nine Integrated Colleges

| | | Regression Parameters | | | | | ACT Validity Coefficients | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| College | N | A | $B_1$ | $B_2$ | $B_3$ | $B_4$ | E | M | SS | NS | R |
| A | 74 | 1.439 | .009 | .023 | .016 | -.007 | .19 | .27* | .24* | .14 | .32 |
| | 111 | 1.026 | .036 | .005 | .021 | .005 | .30* | .18 | .28* | .23* | .34 |
| | 57 | 1.349 | .040 | .007 | .022 | -.018 | .32* | .19 | .30* | .14 | .38 |
| | 100 | 1.128 | -.006 | .023 | .028 | .002 | .17 | .22* | .25* | .22* | .29 |
| B | 46 | .530 | .017 | .013 | .054 | .003 | .53* | .43* | .61* | .44* | .64* |
| | 989 | .508 | .029 | .035 | .013 | .017 | .46* | .49* | .44* | .46* | .56* |
| | 30 | 1.193 | -.057 | -.021 | .089 | .035 | .27 | .02 | .54* | .32 | .63* |
| | 1334 | .142 | .030 | .043 | .021 | .004 | .44* | .48* | .43* | .40* | .54* |
| C | 60 | 1.078 | .031 | .034 | .004 | -.007 | .26 | .27* | .23 | .16 | .33 |
| | 432 | .681 | .027 | .043 | .021 | .006 | .41* | .46* | .43* | .38* | .53* |
| | 57 | 1.246 | -.032 | .023 | .004 | .033 | -.02 | .15 | .07 | .17 | .24 |
| | 492 | .271 | .037 | .045 | .013 | -.001 | .44* | .47* | .38* | .37* | .52* |
| D | 25 | 1.662 | .012 | .020 | -.024 | -.027 | .17 | .33 | -.07 | .31 | .41 |
| | 377 | 1.099 | .024 | .021 | .015 | .014 | .33* | .33* | .33* | .34* | .43* |
| | 17 | 2.394 | .002 | -.024 | -.008 | .003 | -.04 | -.19 | -.13 | -.10 | .21 |
| | 329 | 1.294 | .006 | .013 | .030 | .000 | .16* | .16* | .27* | .17* | .29* |
| E | 43 | 2.092 | -.017 | .034 | .014 | -.009 | .19 | .37* | .29 | .24 | .39 |
| | 807 | 1.267 | .022 | .021 | .008 | .011 | .23* | .26* | .22* | .24* | .31* |
| | 41 | 1.697 | .035 | .042 | -.032 | -.003 | .28 | .40* | -.01 | .18 | .49* |
| | 654 | 1.184 | .015 | .034 | .014 | -.001 | .21* | .29* | .21* | .21* | .32* |
| F | 137 | 1.016 | .038 | .015 | .008 | .007 | .29* | .22* | .24* | .20* | .31* |
| | 634 | .972 | .007 | .035 | .032 | -.002 | .26* | .35* | .35* | .26* | .41* |
| | 52 | 1.067 | .013 | -.012 | .009 | .046 | .25 | .03 | .25 | .32* | .33 |
| | 535 | .899 | .012 | .018 | .002 | .022 | .17* | .18* | .16* | .21* | .24* |
| G | 33 | .256 | .025 | -.004 | -.006 | .085 | .36* | .13 | .25 | .52* | .55* |
| | 784 | .745 | .021 | .023 | .022 | .014 | .32* | .34* | .36* | .34* | .46* |
| | 29 | 1.610 | .025 | .035 | .019 | -.055 | .11 | .38* | .14 | -.07 | .50 |
| | 965 | .369 | .026 | .038 | .021 | .003 | .35* | .40* | .33* | .29* | .46* |
| H | 118 | .685 | .010 | .034 | .017 | .007 | .26* | .32* | .28* | .24* | .37* |
| | 567 | .608 | .024 | .028 | .026 | .010 | .40* | .40* | .42* | .38* | .49* |
| | 105 | .456 | .004 | .009 | .043 | .014 | .34* | .23* | .46* | .34* | .48* |
| | 698 | .158 | .014 | .038 | .032 | .004 | .34* | .40* | .39* | .34* | .47* |
| I | 78 | .506 | .040 | .003 | .014 | .030 | .38* | .21 | .30* | .31* | .44* |
| | 347 | .678 | .028 | .051 | .019 | .005 | .45* | .53* | .45* | .41* | .58* |
| | 51 | .684 | .038 | .008 | .025 | .026 | .44* | .29* | .42* | .37* | .50* |
| | 291 | .726 | .014 | .024 | .016 | .024 | .36* | .40* | .39* | .41* | .47* |

Note: - Data for females are presented in the first two rows for each college and males in the second two rows. The data for black students are presented in the first row of each sex classification. The regression parameters indicate the constant (A) and the regression coefficients ($B_1$, $B_2$, $B_3$, $B_4$) for the four ACT subtests (E, M, SS, and NS, respectively) optimally weighted in a four-prediction regression system.

*$p < .05$

TABLE 4

Regression Parameters, Zero-Order Validity Coefficients, and Multiple R's for Four High School Averages for Black and White Students at Nine Integrated Colleges

| College | N | Regression Parameters | | | | | HSA Validity Coefficients | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | $B_1$ | $B_2$ | $B_3$ | $B_4$ | E | M | SS | NS | R |
| A | 74 | .352 | .190 | .144 | .175 | .147 | .31* | .27* | .32* | .23* | .49* |
| | 111 | .429 | .163 | .250 | .216 | .112 | .34* | .42* | .41* | .35* | .54* |
| | 57 | .966 | -.013 | -.074 | .324 | -.292 | .08 | -.10 | .31* | -.22 | .44* |
| | 100 | 1.886 | -.041 | .077 | .073 | .006 | .01 | .08 | .08 | .03 | .11 |
| B | 46 | .176 | .083 | .161 | .186 | .116 | .27 | .27 | .30* | .29 | .41 |
| | 989 | .503 | .203 | .148 | .177 | .132 | .48* | .45* | .46* | .46* | .58* |
| | 30 | 2.184 | -.231 | .137 | .176 | -.100 | -.17 | .19 | .05 | -.10 | .31 |
| | 1334 | .506 | .179 | .189 | .168 | .106 | .43* | .45* | .42* | .41* | .55* |
| C | 60 | .268 | .375 | -.052 | .121 | .130 | .43* | .22 | .31* | .26 | .46* |
| | 432 | .356 | .332 | .188 | .111 | .119 | .52* | .4 * | .43* | .42* | .59* |
| | 57 | .993 | .156 | .181 | .224 | -.275 | .27* | .25 | .29* | .03 | .40 |
| | 492 | .317 | .170 | .125 | .230 | .153 | .43* | .37* | .45* | .44* | .54* |
| D | 25 | .869 | -.007 | .123 | .020 | .424 | -.02 | .15 | .08 | .44* | .46 |
| | 377 | .993 | .149 | .152 | .197 | .067 | .32* | .34* | .38* | .28* | .48* |
| | 17 | 1.453 | .425 | .042 | -.046 | -.230 | .31 | -.01 | .04 | -.22 | .53 |
| | 329 | 1.683 | .061 | .200 | .054 | -.053 | .11 | .27* | .12* | .02 | .29* |
| E | 43 | 1.649 | -.052 | -.084 | .225 | .166 | .07 | -.09 | .21 | .25 | .34 |
| | 807 | 1.056 | .095 | .141 | .144 | .137 | .18* | .25* | .22* | .25* | .33* |
| | 41 | 1.118 | .415 | .079 | -.183 | .172 | .38* | .25 | -.09 | .16 | .49* |
| | 654 | 1.018 | .145 | .152 | .160 | .075 | .24* | .28* | .24* | .22* | .37* |
| F | 137 | .963 | .150 | -.065 | .182 | .050 | .14 | .00 | .18* | .06 | .21 |
| | 634 | .742 | .166 | .111 | .153 | .114 | .24* | .24* | .25* | .26* | .35* |
| | 52 | -.052 | .075 | -.025 | .367 | .329 | .13 | .04 | .26 | .18 | .35 |
| | 535 | .036 | .315 | .072 | .151 | .107 | .29* | .18* | .24* | .20* | .34* |
| G | 33 | 1.401 | .250 | -.082 | .089 | -.092 | .27 | -.06 | .15 | -.01 | .32 |
| | 784 | .845 | .128 | .149 | .112 | .175 | .26* | .32* | .27* | .34* | .45* |
| | 29 | .788 | .036 | .060 | .198 | .146 | .34 | .23 | .35 | .37* | .47 |
| | 965 | 1.009 | .175 | .105 | .088 | .138 | .31* | .30* | .25* | .31* | .42* |
| H | 118 | .263 | .155 | .085 | .050 | .223 | .29* | .18 | .23* | .31* | .37* |
| | 567 | .407 | .267 | .175 | .146 | .119 | .46* | .41* | .42* | .39* | .55* |
| | 105 | .341 | 1.55 | .089 | .107 | .055 | .23* | .16 | .21* | .15 | .28 |
| | 698 | .230 | .206 | .098 | .217 | .167 | .36* | .28* | .38* | .33* | .47* |
| I | 78 | .127 | .541 | .024 | .102 | .186 | .54* | .1? | .26* | .08 | .57* |
| | 347 | .509 | .199 | .118 | .256 | .112 | .48* | .37* | .49* | .41* | .57* |
| | 51 | .806 | .072 | .014 | .331 | .081 | .24 | .17 | .39* | .07 | .40 |
| | 291 | .705 | .177 | .095 | .176 | .106 | .39* | .29* | .39* | .36* | .47* |

*p < .05

Note.- Data for females are presented in the first two rows for each college and males in the second two rows. The data for black students are presented in the first row of each sex classification. The regression parameters indicate the constant (A) and the regression coefficients ($B_1$, $B_2$, $B_3$, $B_4$) for four subject-area high school averages (English, math, social science, and natural science) used in linear combination to predict college GPA.

TABLE 5
Regression Parameters and Multiple R's for Four ACT Subtests and Four HSA's used in Linear Combination to Predict College GPA for Black and White Students

| College | N | Regression Parameters: Four ACT Tests & Four HSA's | | | | | | | | | R |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | $B_1$ | $B_2$ | $B_3$ | $B_4$ | $B_5$ | $B_6$ | $B_7$ | $B_8$ | |
| A | 74 | -.190 | -.005 | .012 | .002 | .026 | .193 | .141 | .167 | .156 | .53* |
| | 111 | .040 | .020 | -.002 | .027 | -.017 | .115 | .259 | .181 | .131 | .58* |
| | 57 | 1.568 | .035 | .008 | .016 | -.015 | -.085 | -.041 | .283 | -.262 | .53* |
| | 100 | 1.008 | -.006 | .026 | .029 | .000 | -.056 | .104 | .049 | -.050 | .32* |
| B | 46 | -.298 | .009 | .007 | .056 | .009 | .016 | .184 | .101 | .027 | .69* |
| | 989 | .026 | .018 | .015 | .010 | .011 | .133 | .098 | .107 | .098 | .63* |
| | 30 | 1.480 | -.035 | -.024 | .077 | .037 | -.232 | .109 | .044 | .050 | .68 |
| | 1334 | -.223 | .021 | .024 | .017 | -.001 | .095 | .117 | .127 | .088 | .62* |
| C | 60 | .297 | .012 | .026 | .003 | -.028 | .401 | -.112 | .090 | .127 | .49 |
| | 432 | -.041 | .017 | .020 | .017 | -.001 | .250 | .146 | .072 | .082 | .64* |
| | 57 | .777 | -.034 | .012 | .010 | .024 | .139 | .185 | .206 | -.257 | .44 |
| | 492 | -.144 | .030 | .031 | .008 | -.012 | .100 | .052 | .150 | .152 | .60* |
| D | 25 | .626 | .016 | .015 | -.017 | .023 | .094 | .084 | -.099 | .371 | .56 |
| | 377 | .572 | .009 | .014 | .013 | .006 | .120 | .107 | .151 | .141 | .53* |
| | 17 | .975 | .021 | -.041 | -.001 | .033 | .557 | .084 | -.100 | -.176 | .59 |
| | 329 | .965 | .009 | .002 | .028 | .006 | .046 | .213 | .005 | -.080 | .40* |
| E | 43 | 1.690 | -.016 | .034 | .014 | .009 | -.156 | -.186 | .271 | .063 | .53 |
| | 807 | .523 | .017 | .012 | .006 | .007 | .060 | .078 | .119 | .119 | .38* |
| | 41 | 1.198 | .043 | .022 | -.025 | -.002 | .268 | .110 | -.156 | .000 | .58 |
| | 654 | .389 | .005 | .023 | .012 | -.001 | .127 | .097 | .146 | .051 | .43* |
| F | 137 | .827 | .035 | .016 | .006 | .009 | -.043 | -.059 | .167 | -.002 | .34* |
| | 634 | .325 | .006 | .028 | .029 | -.008 | .108 | .036 | .077 | .110 | .45* |
| | 52 | -.086 | .010 | -.020 | .015 | .029 | -.001 | .063 | .268 | .283 | .42 |
| | 535 | -.398 | .009 | .011 | .001 | .014 | .291 | .044 | .140 | .083 | .37* |
| G | 33 | -.035 | .019 | -.002 | -.001 | .084 | .035 | .084 | .067 | .061 | .57 |
| | 784 | -.080 | .020 | .011 | .017 | .011 | .079 | .102 | .074 | .153 | .54* |
| | 29 | 1.213 | .009 | .036 | .016 | -.056 | .180 | -.105 | .069 | .117 | .62 |
| | 965 | -.147 | .022 | .026 | .019 | .002 | .136 | .063 | .051 | .096 | .53* |

$P < .05$

NOTE - Data for females are presented in the first two rows for each college and males in the second two rows. The data for black students are presented in the first row of each sex classification: The regression parameters indicate the constant (A) and the regression coefficients ($B_1$, $B_2$, $B_3$, $B_4$) for ACT Subtests E, M, SS, and NS, respectively and the regression coefficients ($B_5$, $B_6$, $B_7$, $B_8$) for HSA-English, HSA-Math, HSA-Social Science, and HSA-Natural Science, respectively.

TABLE 5
Regression Parameters and Multiple R's for Four ACT Subtests and Four HSA's used in Linear Combination to Predict College GPA for Black and White Students (Con't.)

| College | N | Regression Parameters: Four ACT Tests & Four HSA's | | | | | | | | | R |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | $B_1$ | $B_2$ | $B_3$ | $B_4$ | $B_5$ | $B_6$ | $B_7$ | $B_8$ | |
| H | 118 | -.164 | -.004 | .031 | .019 | .008 | .087 | .046 | .062 | .227 | .47* |
| | 567 | .008 | .009 | .010 | .020 | .007 | .202 | .145 | .083 | .092 | .59* |
| | 105 | -.056 | -.002 | .011 | .043 | .013 | .087 | .122 | .000 | .029 | .51* |
| | 698 | -.392 | .009 | .023 | .027 | .001 | .115 | .061 | .157 | .137 | .55* |
| I | 78 | -.270 | .014 | .003 | .019 | .029 | .505 | -.006 | .044 | -.201 | .64* |
| | 347 | .082 | .015 | .040 | .007 | .007 | .073 | .024 | .209 | .104 | .65* |
| | 51 | .572 | .021 | -.004 | .030 | .031 | -.038 | .002 | .262 | -.127 | .56* |
| | 291 | .310 | .001 | .013 | .018 | .016 | .140 | .068 | .108 | .063 | .54* |

NOTE - Data for females are presented in the first two rows for each college and males in the second two rows. The data for black students are presented in the first row of each sex classification: The regression parameters indicate the constant (A) and the regression coefficients ($B_1$, $B_2$, $B_3$, $B_4$) for ACT Subtests E, M, SS, and NS, respectively and the regression coefficients ($B_5$, $B_6$, $B_7$, $B_8$) for HSA-English, HSA-Math, HSA-Social Science, and HSA-Natural Science, respectively.

TABLE 6

Regression Parameters and Multiple R's for ACT Composite and HSA-Total Used in Linear Combination to Predict College GPA for Black and White Students

| College | N | Regression Parameters A | $B_1$ | $B_2$ | R | College | N | Regression Parameters A | $B_1$ | $B_2$ | R |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 92 | .206 | .029 | .547 | .47* | F | 149 | 1.042 | .060 | .011 | .28* |
| | 132 | -.118 | .041 | .604 | .56* | | 651 | .390 | .056 | .305 | .43* |
| | 71 | 1.258 | .053 | -.019 | .34* | | 56 | .105 | .058 | .378 | .37* |
| | 120 | .999 | .050 | .051 | .29* | | 548 | -.169 | .037 | .490 | .36* |
| B | 55 | -.596 | .093 | .318 | .69* | G | 39 | 1.052 | .067 | -.066 | .40* |
| | 1153 | .118 | .052 | .429 | .63* | | 870 | -.017 | .055 | .411 | .53* |
| | 35 | .326 | .076 | .124 | .47* | | 32 | .814 | .015 | .323 | .41 |
| | 1484 | -.158 | .056 | .437 | .62* | | 1039 | -.105 | .062 | .363 | .51* |
| C | 67 | .173 | .017 | .569 | .46* | H | 142 | -.281 | .065 | .402 | .49* |
| | 504 | .042 | .052 | .522 | .61* | | 663 | -.004 | .047 | .518 | .59* |
| | 62 | .545 | .007 | .428 | .34* | | 121 | -.087 | .070 | .213 | .47* |
| | 570 | -.064 | .051 | .451 | .58* | | 800 | -.397 | .060 | .451 | .53* |
| D | 27 | .148 | .029 | .637 | .47* | I | 90 | .261 | .056 | .236 | .39* |
| | 432 | .455 | .050 | .401 | .54* | | 384 | .128 | .063 | .043 | .63* |
| | 27 | 1.972 | -.006 | .043 | .08 | | 57 | .069 | .085 | .301 | .52* |
| | 375 | .944 | .041 | .200 | .30* | | 337 | .348 | .051 | .359 | .53* |
| E | 50 | 2.249 | .047 | -.210 | .34 | | | | | | |
| | 886 | .618 | .040 | .358 | .36* | | | | | | |
| | 51 | 1.290 | .019 | .276 | .27 | | | | | | |
| | 705 | .503 | .040 | .383 | .40* | | | | | | |

*P < .05

NOTE: Data for females are presented in the first two rows for each college and males in the second two rows. The data for black students are presented in the first row of each sex classification. The regression parameters indicate the constant (A) and regression coefficients for ACT-Composite ($B_1$) and HSA-Total ($B_2$) used in linear combination to predict college GPA.

TABLE 7

Actual vs Predicted College GPA for Black and White Students Via Same Sex and Total Regression Systems (HSA-Total and ACT-Composite as Predictors)

| College | Actual GPA | Predicted GPA I | | | Predicted GPA II | | |
|---|---|---|---|---|---|---|---|
| | | HSA-T | ACT-C | Combined | HSA-T | ACT-C | Combined |
| A | 1.97 | 2.10 | 2.00 | 1.99 | 2.14 | 1.98 | 2.00 |
| | 2.39 | 2.30 | 2.37 | 2.38 | 2.27 | 2.29 | 2.34 |
| | 1.99 | 2.08 | 1.93 | 1.93 | 2.04 | 1.96 | 1.91 |
| | 2.15 | 2.10 | 2.19 | 2.19 | 2.14 | 2.28 | 2.24 |
| B | 1.74 | 2.45 (o) | 1.90 | 2.09 | 2.42 (o) | 1.77 | 2.05 |
| | 2.47 | 2.43 | 2.46 | 2.45 | 2.41 | 2.31 | 2.37 |
| | 1.93 | 2.38 | 1.76 | 2.03 | 2.40 | 1.89 | 2.11 |
| | 2.24 | 2.23 | 2.25 | 2.24 | 2.26 | 2.37 | 2.31 |
| C | 1.85 | 2.27 | 1.88 | 2.00 | 2.17 | 1.69 | 1.90 |
| | 2.44 | 2.38 | 2.43 | 2.42 | 2.27 | 2.20 | 2.27 |
| | 1.71 | 2.00 | 1.58 | 1.75 | 2.10 | 1.77 | 1.89 |
| | 2.01 | 1.97 | 2.02 | 2.00 | 2.07 | 2.22 | 2.13 |
| D | 2.06 | 2.31 | 2.09 | 2.10 | 2.29 | 2.05 | 2.07 |
| | 2.51 | 2.49 | 2.51 | 2.51 | 2.43 | 2.37 | 2.42 |
| | 1.99 | 2.20 | 1.98 | 1.98 | 2.23 | 2.03 | 2.01 |
| | 2.25 | 2.24 | 2.25 | 2.25 | 2.31 | 2.41 | 2.35 |
| E | 2.42 | 2.51 | 2.32 | 2.33 | 2.53 | 2.30 | 2.32 |
| | 2.68 | 2.67 | 2.68 | 2.68 | 2.69 | 2.64 | 2.67 |
| | 2.40 | 2.49 | 2.37 | 2.34 | 2.48 | 2.43 | 2.36 |
| | 2.67 | 2.67 | 2.67 | 2.68 | 2.64 | 2.72 | 2.69 |
| F | 1.86 | 2.10 | 1.91 | 1.89 | 1.95 | 1.80 | 1.78 |
| | 2.37 | 2.32 | 2.36 | 2.37 | 2.19 | 2.18 | 2.21 |
| | 1.81 | 1.70 | 1.65 | 1.57 | 1.88 | 1.83 | 1.75 |
| | 1.94 | 1.95 | 1.96 | 1.97 | 2.13 | 2.20 | 2.17 |
| G | 2.07 | 2.45 | 2.16 | 2.14 | 2.46 | 2.05 | 2.11 |
| | 2.69 | 2.68 | 2.69 | 2.69 | 2.67 | 2.58 | 2.66 |
| | 1.90 | 2.28 | 1.91 | 1.92 | 2.27 | 2.01 | 1.95 |
| | 2.48 | 2.47 | 2.48 | 2.48 | 2.48 | 2.58 | 2.51 |
| H | 1.56 | 2.05 | 1.68 | 1.74 | 1.61 | 1.48 | 1.95 |
| | 2.32 | 2.21 | 2.29 | 2.28 | 2.13 | 2.07 | 2.11 |
| | 1.33 | 1.80 (o) | 1.31 | 1.42 | 1.57 | 1.49 | 1.89 (o) |
| | 1.88 | 1.81 | 1.88 | 1.87 | 1.99 | 2.07 | 1.90 |
| I | 1.54 | 2.21 (o) | 1.75 | 1.81 | 2.19 (o) | 1.72 | 1.85 |
| | 2.48 | 2.33 | 2.43 | 2.42 | 2.30 | 2.32 | 2.36 |
| | 1.74 | 2.05 | 1.64 | 1.76 | 2.08 | 1.66 | 1.73 |
| | 2.08 | 2.03 | 2.10 | 2.08 | 2.05 | 2.23 | 2.14 |

NOTE: Data for females are presented in the first two rows for each college and males in the second two rows. The data for black students are presented in the first row of each sex classification. Substantial over prediction (o) or underprediction (u) was arbitrarily set at a deviation of at least one-third of a grade-point from the actual GPA.

▲ black females △ white females
● black males ○ white males

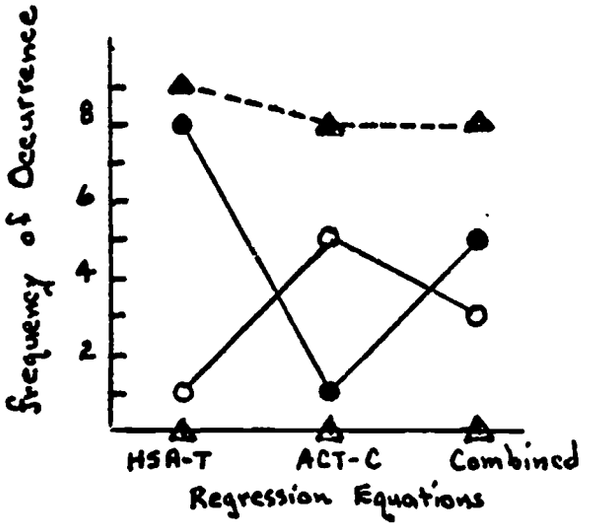


Figure 1-a. Frequency of occurrence of overpredictions of college GPA by means of same-sex regression equations based on total HSA, ACT composite, and combined HSA-T and ACT-C.

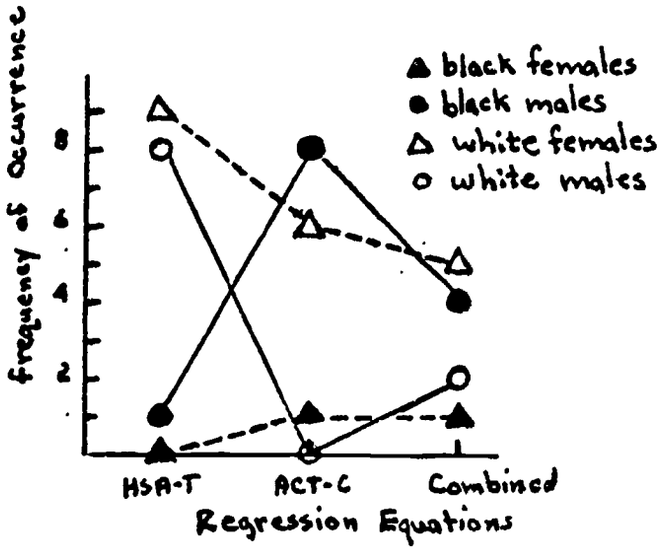


Figure 1-b. Frequency of occurrence of underpredictions of college GPA by means of same-sex regression equations based on total HSA, ACT composite, and combined HSA-T and ACT-C.

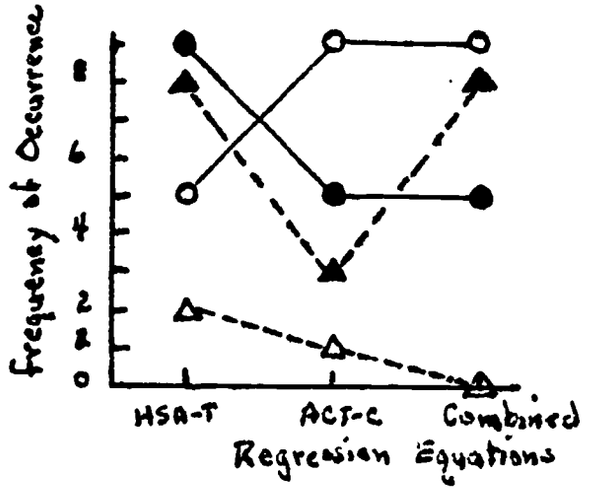


Figure 2-a. Frequency of occurrence of overprediction of college GPA by means of total regression equations based on total HSA, ACT composite, and combined HSA-T and ACT-C.

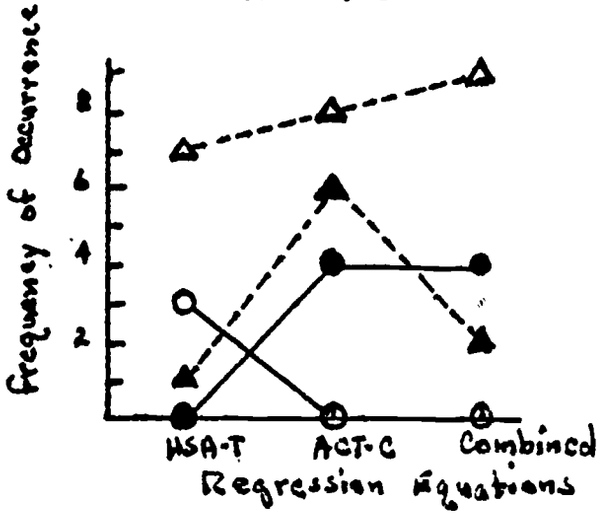


Figure 2-b. Frequency of occurrence of underprediction of college GPA by means of total regression equations based on total HSA, ACT composite, and combined HSA-T and ACT-C.