Nothing Succeeds Like Success: Another Look at the Black-White Test Score Gap in Relation to
Academic Achievement in College Students.

William Collins

University of Michigan

August, 2003

Abstract

This Study examines the effects of select academic and economic factors on the academic achievement of black and white students at a large selective public university. Subjects were 13,915 students who entered college as freshmen in the years 1991 through 1996, inclusive; 1,620 were black, while 12,295 were white. Both the academic and economic factors were found to have statistically significant effects on achievement as measured by first semester grade point average (FGPA). In addition, students were assigned to groups as Achievers or Underachievers according to whether or not their academic performance was satisfactory or unsatisfactory, respectively. Probable causes of underachievement were explored based on transcript analysis. General findings replicate those of Vars and Bowen (1998). However, unlike previous research, these findings suggest a steeper slope for the relationship between FGPA and SAT (formerly the Scholastic Aptitude Test) for black students than for white students, resulting in FGPA performance convergent at the upper levels of SAT score.

Nothing Succeeds Like Success: Another Look at the Black-White Test Score Gap in

Relation to Academic Achievement in College Students.

A college education is widely viewed as a gateway to future progress, both for the individual and for society. The individual is provided with knowledge, skills and perspectives that enhance opportunities for success in life, while society enjoys the fruits of the contributions made by an educated, informed and productive citizenry. Selective colleges and universities often pride themselves on just such values which are offered to their students. Selective colleges represent about twenty percent of all colleges and universities in the United States and they routinely have more applicants than spaces available resulting in a need for a selection process to choose an entering class. In determining who is to receive the benefits of their specialized educational opportunities, Selective colleges generally rely on the maxim that future academic success is predicated on prior academic success. One way this maxim is given expression is through the use of standardized test scores as a measure of prior achievement. This has contributed to a sense among many in our society that a simple meritocratic imperative is at work which results in students being ranked ordered numerically along a dimension such as standardized test score, and with those at the top being selected for admission (Lemann, 1999). Another way of gauging prior academic success is through high school grades which certainly are recognized as a factor in admissions decisions. But high schools vary in quality and curricular offerings, often resulting in the discounting of grades from one school, while comparable grades

at a different school are awarded a premium. Other factors, less widely recognized, also play a role in who gets admitted, included among them are such considerations as leadership, extracurricular activity, geographic location, or family lineage. In reality, selective colleges operate with multiple purposes when selecting an entering class and this introduces other factors besides test scores of grades.

Beginning in the 1960s race has acted as a force for inclusion in the selective college admission process, rather than one for exclusion as had been the case prior to the civil rights era which emerged in the latter half of the twentieth century. As such, race has remained a matter of considerable controversy when it comes to selective college admissions; some argue that race functions as an unwelcome force for preferential treatment; others contend that consideration of race reflects legitimate concerns for social justice which is itself one of many values higher education endorses. The matter is complicated further by the existence of a "test-score gap" between blacks and whites. That is, since the dawn of the widespread use of standardized testing which occurred in the early twentieth century, whites were found to obtain test scores that averaged about one standard deviation above the test scores obtained by blacks. The "test-score gap" continues to this day and is evident in a wide variety of standardized tests, including college admissions tests such as the SAT formerly the Scholastic Aptitude Test). This fact has led some to go as far as to suggest that based on test scores blacks in general should attend less selective colleges (Herrnstein and Murray, 1997); Thernstrom and Thernstrom, 1998). But such test scores are also significantly correlated with socio-economic status and unrelated to many other factors colleges consider in the admissions process, such as leadership. Bowen and Bok (1998) have demonstrated that blacks have enjoyed considerable

successes in selective colleges and have gone on to similar successes in later life to the benefit of society in general, and did so despite the gap in test scores evident upon entry to college.

Nevertheless, two concerns have been identified even by the generally sympathetic findings of Bowen and Bok. First, Bowen and Bok report a continued "performance gap" between blacks and whites in college as measured by grade point average which amounted to a difference of about one-half a letter grade (i.e., a difference of about .5 of a grade point on a 4.0 scale). The second is their finding, consistent with that of Steele (1997), that the performance gap was highest for blacks with the highest standardized test scores. Data available for students at a large public university with a history of affirmative action in admission allows for a close examination of these issues which is the basis for the current study.

The findings reported here have the advantage of being based on a single large selective university with students who enrolled as freshmen over several years. IN addition, although about thirty percent of students at this institution come from across the country and even form places around the world, the data are analyzed only for students who were "in-state" residents. The reason was twofold: first it provides confidence that all students in the study followed a single state-mandated curriculum in high school, thus reducing some of the variability in the kind of preparation students received prior to entering college. A second reason was that one measure used in the data analysis is an estimate of household income linked to information provided within the state.

These considerations serve as the impetus for the present study to examine the black-white test score gap in relation to academic achievement of students attending a

selective public university. The study utilizes a naturalistic observation approach involving secondary analysis of student records.

METHOD

Subjects

The subjects of this study were 13,915 students who were either African American or Caucasian and enrolled as college freshmen in the fall term of years 1991 through 1996, inclusive. The students were all residents of the state of Michigan and they comprise 67% of all students enrolled as freshmen in the years examined. The study is limited to Michigan residents because among the variables of interest is an economic measure defined by county of residence. The limitation provides the added advantage that all subjects met a set of high school curriculum requirements established by a single state rather the a variety of such requirements established by different states or even different countries in which the remaining one-third of students were raised.

Variables

Dependent Variable. The study is concerned with student academic achievement, thus the Dependent Variable is the grade point average earned by students in the first fall term of enrollment (FGPA).

Independent Variables. Two independent measures of academic achievement were used and these were each student's high schools grade point average (HSGPA) and each student's score on a standardized test required for admission consideration. Two tests could meet this latter requirement: the SAT (formerly the Scholastic Aptitude Test) or the ACT (formerly the American College Testing Program Test). Using a conversion

table supplied by the testing agency, scores were converted to the SAT scale and standardized to national norms based on information from the testing agency. All academic achievement measures were supplied by the university's registrar's office using official records. In addition, two economic measures were stablished for each student based on county of residence. These measures were the Median Household Income (MHI) and the poverty rate (PR) for the student's county of residence derived from records of the state Bureau of Management and Budget. For analysis purposes students were classified by race, gender and level of academic achievement. Two levels of academic achievement were established: students with FGPA of 2.0 or higher were classified as Achievers, while those with FGPOA below 2.0 were classified and Underachievers.

Analyses

Date were analyzed using correlation and multiple regression techniques. Student's T-test was used to report difference between groups.

RESULTS

<u>Overall</u>

Table 1 provides means and standard deviations for students in the study by race for all students and also for the two achievement groups. On all variables the differences between blacks and whites are statistically significant (p<.01) with whites higher than blacks on all measures except poverty rate. Table 2 is a correlation matrix showing the inter-correlations between the academic achievement and the economic variables. For the black students, represented by correlation coefficients above the

diagonal, the Dependent Variable (FGPA) is significantly correlated with each of the academic achievement and economic measures. The academic measures bear a significant positive correlation with FGPA, indicating that for black students higher HSGPA and SAT scores are related to higher academic achievement in college. Similarly Household Income (HHI) has a significant positive correlation with FGPA for black students, suggesting that students from wealthier communities tended to perform better academically than students from poorer communities. Consistent with these findings, county Poverty Rate (PR) was negatively, but significantly correlated with each of the other variables, suggesting that black students from poorer communities tend to perform less well academically and tended to reside in different communities from wealthier students. The statistically significant positive correlation between HHI and SAT indicates that black students from wealthier communities tended to score higher on SAT than students from poorer communities.

For white students, represented by correlation coefficients above the diagonal, there are also significant correlations between FGPA and the other variables. As was the case for black students, higher HSGPA and SAT scores were related to higher FGPA for white students as well. Although HHI and PR were significantly correlated with FGPA, the correlation coefficients were quite small. PR had a significant negative correlation with HHI, as was the case for black students, but unlike the results for black students, PR did not have a significant correlation with HSGPA or with SAT for white students. Also for white students, HHI had a slightly negative, but statistically significant correlation with HSGPA, suggesting that students from wealthier communities tended to have slightly lower HSGPA.

Multiple Regression analysis was employed to assess the contribution of the different variables to the prediction of academic achievement. Table 3 is a summary of the Multiple Regression analysis results; the overall analysis appears in the first column, and uses FGPA as the criterion with the academic and economic variables, along with race and gender, as predictors. The model was highly significant: R=.461; R^2=.212; df, 6 and 13,708; F=616.09; p<.001.Each of the variables made contributions to the prediction of FGPA that were statistically significant although the beta coefficients for some for the variables were quite small. To provide context, based on the model, for every point increase in HSGPA, FGPA increases by half a letter grade (about .50 of a grade point on a 4.0 scale). Similarly, for every 100 points increase in SAT score, FGPA increased about one-tenth a letter grade (about .10 of a grade point on a 4.0 scale). By comparison, the variable of PR increased FGPA by less than one-hundredth of a grade point for each point of PR. HHI also yielded a small beta coefficient, but as a practical matter it is still important because of the magnitude of the measures for income in dollars. That is, for every one thousand dollars increase in HHI, FGPA goes up by about .009 of a grade point; yet because mean HHI was about $42,000, the impact is measured by multiplying .009 by 42, which yields an overall substantial contribution of about one-third of a letter grade (i.e., over .3 of a grade point).

Figure 1 is a scatterplot graph showing the relationship between standardized test score (SAT) and FGPA, with a "best fit" line drawn for the subgroups of black students and white students. The best fit line reveals a wide difference in FGPA between black and white students at the lower extremes of SAT, reflecting a difference in intercept for the dependent variable (FGPA) for each group. But as SAT increases, the best fit lines are seen to converge at the upper levels of SAT. That is, due to the

steeper slope for blacks, academic achievement as measured by FGPA is about the same for black and white students who score high on the SAT.

When Regression analyses were carried out for each race separately, for whites the Regression analysis was essentially the same as for the overall analysis, with all achievement and economic variables being significant predictors of FGPA, as was being female (R=.399; R^2=.159, df 5 and 12,116; F=458.93; p<.001). When the Regression analysis was done for blacks as a separate group, only HSGPA, SAT and being female were significant predictors, while HHI and PR were not predictive of FGPA (R=.38, R^2=.144; df=5 and 1,597; F=53.6; p<.001). Thus, for both blacks and whites females earned higher FGPA than males. For whites, both academic and economic factors were related to academic achievement, while for blacks only the academic factors were related to academic achievement. Such finding is likely reflective of the restrictive range for blacks on the HHI economic measure.

Analysis by Achievement Level

Among white students, 11,808 students 96%) earned an FGPA of 2.0 or higher, while only 487 (4%) earned an FGPA below 2.0. For black students, 1,330 students (82%) earned an FGPA of 2.0 or higher, while 290 (18%) earned an FGPA below 2.0. The following analysis examines the Achievers and Underachievers more closely.

Achievers

Predictably the Achievers, among both blacks and whites, were statistically significantly higher on HSGPA, SAT, and HHI, and significantly lower on PR, than were the Underachievers of the same race. In each case, two-tailed t-tests were significant

beyond the .001 level. Figure 2 is a scatterplot graph showing the relationship between SAT and FGPA for race by achievement group, with a best-fit line drawn for each group. It is seen that the best-fit lines for the four race-by-achievement groups are dramatically different from those drawn for the two groups divided by race alone as was depicted in Figure 1. Figure 2 illustrates that among the Achievers, the intercepts for the dependent variable are predictably higher than in Figure 1 and the slope for blacks and for whites are essentially identical.

Underachievers

The group defined as Underachievers earned an FGPA less than 2.0. For both blacks and whites, Underachievers scored statistically lower on HSGPA, SAT, and HHI and significantly higher on PR (p<.001 in each instance). A Multiple Regression analysis of the Underachievers using FGPA as the criterion and the academic and economic measures as predictors yielded a significant model, but revealed that only HHI ws predictive of achievement, as was being white (R=.162; R2=.026; df=5 and 769; F=4.13; p<.01). Thus, there remained a racial difference in achievement even among the Underachievers, but the economic rather than the academic variables appeared to be responsible for the relationship. Within the group of Underachievers, students from wealthier communities earned a higher FGPA than did students from poorer communities, although such performance was still unsatisfactory with respect to good academic standing. The best-fit lines which appear in the lower half of the Figure 2 graph show a slightly negative slope for the line depicting the relationship between SAT and FGPA for blacks, this line is essentially flat indicting no relationship between SAT and FGPA for black Underachievers. The best-fit line for white Underachievers revealed

11

a more pronounced negative relationship between SAT and FGPA. Thus, for white Underachievers, as SAT increased, FGPA decreased.

All of the students in this study were admitted based on the prospect for good academic achievement in college. For the Underachievers in particular, the lack of the expected relationship between SAT and FGPA is curious to say the least and so this group will be examined more closely. About fifty percent of this group eventually dropped-out (49% of whites and 55% of blacks); X^2=1.39; n.s.). Those remaining recovered from their inauspicious start as college students by improving their grade point averages in subsequent semesters and at the time of the data collection for this study had either graduated or were currently enrolled. Of the 777 students in the study who earned less than a 2.0 FGPA as freshmen, a total of 170 had graduated, 213 were currently enrolled, and 394 had dropped-out at the time of this study. Our closer look at the group will examine the Underachievers who had graduated in comparison to those who had dropped-out and consists of transcript analysis (Adelman, 1999) of their first semester in college in an effort to identify patterns that might help to account for the underachievement. In particular, this phase of the study sought to address four questions:

- Did Underachievers overload their first semester with excessive credits hours (that is, did they carry 17 or more credits in their first semester)?

- Did Underachievers enroll in upper-division courses for which they had not fulfilled expected prerequisites?

- Did Underachievers experience academic difficulty in specific courses?

- Did the transcript offer clues that might help to understand why some students graduated and others did not?

The first two questions could be dispensed with readily. Of the 777 Underachievers, only 22 enrolled in upper-division courses and at least some of these were clearly appropriate elections (.e.g., an advanced foreign language course for which entry is based on local placement test performance). Only seven of the Underachievers carried 17 or more credits during their first semester. This suggests that students received proper academic advice about course selection as well as having been enrolled in appropriate levels of courses. But by far, underachievement was attributable to performance in specific courses. Table 4 summarizes courses in which Underachievers, both those who eventually graduated and those who dropped-out, performed poorly. It is clear that performance in mathematics and science courses were the main sources of underachievement. The transcript analysis revealed that although both graduates and drop-outs experienced difficulty in the same set of courses, those who eventually graduated seemed to recover readily by changing their focus. That is, those who graduated improved their performance in the next semester and also moved from a math-science focus to a humanities or social science focus in terms of course selection in their subsequent semesters; it might said of them that they preferred to switch than to fight. In contrast, those who dropped-out tended to continue to elect more math-science courses and even elected to re-take courses in which they had already performed poorly, often with comparable poor results; it might be said of the drop-outs that they seem to prefer to fight than to switch. That is, the group that eventually dropped-out persisted in electing courses within a given track (for example, math-science) in which they did not succeed.

DISCUSSION

The black-white test-score gap as reported in the literature is seen to illustrate that in general blacks underperform academically in college relative to whites with comparable standardized test scores. The results of this study suggest not only that there is convergence of achievement at the upper levels of SAT, but also that for the vast majority of black students, that is the 82% who performed satisfactorily in their first semester, the achievement gap observed is both negligible and moderated by economic factors. The test-score gap is real, and that there is a relationship between standardized test score as a measure of prior achievement and college academic achievement is supported by these findings. But the closer look described here offers a more complete perspective for making sense of the differences between black and white students academic achievement in college. Such a perspective may be particularly important for understanding differences in college achievement in relation to differences in standardized test scores. For both black and white students, college achievement appears to reflect a complex mix of student characteristics, personal aspirations, and the student's home community resources as they relate to overall college adjustment. At the same time, these findings offer suggestions as to factors that may contribute to underachievement. That is, preparation for college level work appears to be influenced by economic factors which likely are related to quality of high school teaching, particularly teaching on mathematics and science. Indeed, the findings reported here reveal remarkable similarities between black and white students, particularly among those who were "underachievers" in college.

A key area of similarity between black and white underachievers had to do with course selection and this clearly is related to career aspirations. For example, large

numbers of students around the nation aspire to careers as physicians. Nationwide each year over 47,000 applicants vie for about 16,000 medical school spaces. There is no mystery why this is so: medical careers are rewarding both economically and personally offering security and prestige. Not surprisingly, large numbers of entering college students self-identify themselves as "pre-med." At the institution where this study was done, about thirty percent of whites entering as freshmen identify as "pre-med" and over forty percent of blacks so identify. All together over 2,000 students each year at this institution start their careers with medicine as their aspiration. An additional 1,500 or so seek aspire to careers as engineers. Fulfilling such career aspirations means electing a schedule of courses that is heavily weighted towards mathematics and the sciences. As an illustration, in the introductory general chemistry course, over seventy percent of students identify as "pre-med," while over fifty percent of students in the introductory biology course do so. A reliable racial breakdown of medical school applicants was not available, but of all those who enter the university identifying as "pre-med," fewer than half actually applied to medical school and about half of them were actually admitted to medical school. This baseline information is useful for placing into perspective the experiences of Underachievers. Many of them no doubt entered college with medicine or engineering as their career aspiration. Those who switched readily from math-science focused course very likely also were changing their career goals. Those who did not switch and who continued to "fight" to succeed in math and science courses likely did so in a losing effort to retain their career aspirations; the cost was that many dropped out.

Although a minority of blacks in the study were *Underachievers*, the proportion was larger than for whites. This is reflective of mean differences between the groups on traditional achievement measures such as HSGPA or SAT score (see Table 1) and evidenced by the gap in achievement at the lower extremes of the independent variable; a gap which is essentially erased at the upper levels of the independent variables. Figure 3 is a schematic depicting the strengths of relationships between the various economic and academic variables. For both blacks and whites, the academic measures have the stronger relationships to college academic achievement, but for blacks economic factors have a stronger relationship to such achievement than they do for whites. As a practical matter the findings of this study indicate that for both blacks and whites substantial faith can be placed in traditional measures of achievement as predictors of future college success. This is not surprising; after all, college academic success requires the same cognitive skills that are developed successfully through prior schooling: reading, writing, thinking and problem solving. To be sure, the selective college environment imposes other challenges as well, such as the need to be independent or to manage one's time effectively. But the cognitive bases of college success remain unchallenged. In fact, the findings of this study underscore that such a base is necessary, but not sufficient for college academic success. The group of Underachievers in particular, both black and white, illustrate that even well-prepared students can experience academic difficulty in college, often as a result of poor decision making.

Yet, as selective colleges pursue their multiple aims, including certain social ends, it may be desirable to include in the entering class some students with amore academically risky profile. The reasons for doing so are many and may include interest

in promoting diversity in the student body; interest in recognizing alternative forms of talent such as athletic or musical ability; interest in rewarding students who have demonstrated exceptional potential by having overcome hardships; or to promote other educational or societal goals (e.g., to produce more entrepreneurs or more women scientists). Such educational or societal goals represent hallmarks of the American system of higher education. The findings reported here suggest that a realistic perspective is important; that is, considerable academic success can be achieved even by "at-risk" groups, but with a concomitant, though not overwhelming risk of lower performance relative to those whose reservoir of economic advantages that lead to more impressive academic profile. Intervention strategies may be appropriate for addressing such risk and a variety of successful approaches have been identified, including academically intense summer develop opportunities. Prior research has shown that such summer activities are particularly effective (Collins, 1998).

In the end, it can be said of academic achievement in college that nothing succeeds like success. This study illustrates that for both black students and white students in a selective public college, past academic achievement is predictive of future academic achievement. But the factors that contribute both to prior and to college achievement include not only quality of academic preparation, but also economic factors as well as a metacognitive orientation among student that encourages a willingness to re-assess and re-direct their actions.

References

Bowen, W. G. and Bok, D. (1998) <u>The Shape of the River: Long Term Consequences of Considering Race in College and University Admissions.</u> Princeton, NJ: Princeton University Press.

Collins, W. (1996) Correlates of Academic Achievement among Students in a Developmental Summer Program. Ann Arbor, MI: University of Michigan.

Collins, W. (2000) Generating Momentum for College Academic Success in Promising African American Students. Ann Arbor, MI: University of Michigan.

Herrnstein, R. J. and Murray, C. (1994) <u>The Bell Curve: Intelligence and Class in American Life</u>. New York: The Free Press.

Lemann, Nicholas (1999) *The Big Test*. New York: Farrar, Straus, Giroux.

Steele, C. M. (1997) A Threat in the Air: How Stereotypes Shape Intellectual Identity and Performance. <u>American Psychologist,</u> 52 (6) 613-629.

Thernstrom, S. and Thernstrom, A. (1997) <u>America in Black and White: One Nation, Indivisible</u>. New York: Simon and Shuster.

Vars, F. E. & Bowen, W. G. (1998) Scholastic Aptitude Test Scores, Race, and Academic Performance in Selective Colleges and Universities. In C. Jenckes and M. Phillips (Eds.) <u>The Black-White Test Score Gap.</u> Washington, DC: Brookings Institute Press.

Table 1. Means and standard deviations for select academic and economic variable by race of students.

OVERALL

	Black (N=1,620)		White (N=12,295)	
	Mean	s.d.	Mean	s.d.
HSGPA	3.4	.39	3.7	.29
SAT	.26	.66	1.15	.61
HHI	$37.7K	$8.4K	$43.2K	$9.5K
PR	16.2	5.7	10.8	5.2
FGPA	2.61	.69	3.1	.56

ACHIEVERS

	Black (n=1,330)		White (n=11,808)	
HSGPA	3.4	.39	3.7	.28
SAT	.31	.66	1.16	.61
HHI	$38.1K	$8.6K	$43.2K	$9.5K
PR	15.9	5.9	10.7	5.2
FGPA	2.9	.47	3.2	.47

UNDERACHIEVERS

	Black (n=290)		White (n=487)	
HSGPA	3.21	.40	3.46	.37
SAT	.005	.60	.95	.64
HHI	$35.9K	$6.96K	$41.2K	$9.3K
PR	17.5	5.04	11.6	5.3
FGPA	1.48	.40	1.57	.39

HSGPA: High School Grade Point Average
SAT: Test score standardized to national norms
HHI: Household Income for student's county of residence
PR: Poverty Rate for student's county of residence
FGPA: First Semester Grade Point Average

Table 2. Intercorrelations between academic and economic variables by race.

	FGPA	HSGPA	SAT	HHI	PR
FGPA		.325**	.266**	.059**	.041**
HSGPA	.265**		.249**	-.094**	.014
SAT	.297**	.232**		.012	-.012
HHI	.137**	.004	.141**		-.849**
PR	-.141**	-.036	-.169**	-.935**	

**p<.01

Intercorrelations for black students appear below the diagonal; intercorrelations for white students appear above the diagonal.

HSGPA: High School Grade Point Average
SAT: Test score standardized to national norms
HHI: Household Income for student's county of residence
PR: Poverty Rate for student's county of residence
FGPA: First Semester Grade Point Average

Table 3. Multiple Regression Analysis summary table for the effects of academic and economic variables on academic achievement.

Variable	Overall	Blacks	Whites
Intercept	.369	.967	.329
	(.086)	(.37)	(.09)
HSGPA	.497	.333	.537
	(.016)	(.043)	(.017)
SAT	2.08	.268	.196
	(.008)	(.026)	(.008)
Race (white)	.139	- -	- -
	(.017)	- -	- -
Gender (female)	.093	.12	.089
	(.009)	(.035)	(.01)
HHI	.009	.0096	.0096
	(.001)	(.005)	(.001)
PR	.008	.0016	.01
	(.002)	(.008)	(.002)
R^2	.212	.144	.159
N	13,720	1,603	12,121

Table 4. Lists of courses in which *Underachievers* performed unsatisfactorily by race and persistence status (i.e., Drop-out vs. Graduate).

Black Students

Drop Outs (n=158)	Graduates (n=43)
Mathematics (98)	Mathematics (28)
Chemistry (46)	Chemistry (16)
Foreign Language (40)	Foreign Language (5)
Computer Science (11)	Computer Science (4)
Geology (11)	Economics (2)
Physics (4)	

White Students

Drop Outs (n=240)	Graduates (n=130)
Mathematics (127)	Mathematics (71)
Chemistry (79)	Chemistry (27)
Foreign Language (43)	Computer Science (13)
Computer Science (25)	Physics (10)
Physics (21)	Foreign Language (9)
Economics (13)	Economics (6)

Numbers in parentheses indicate number of cases.
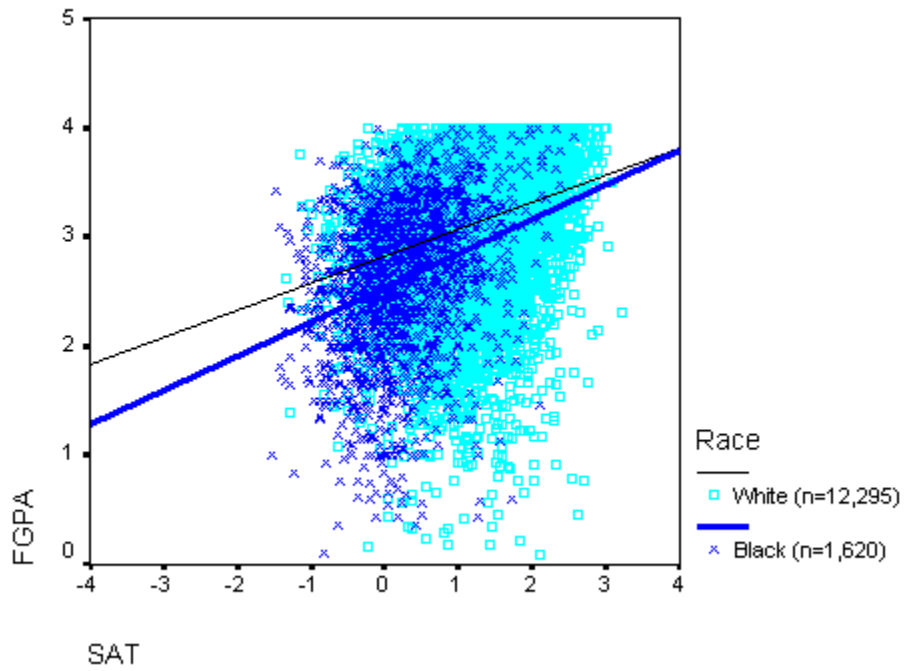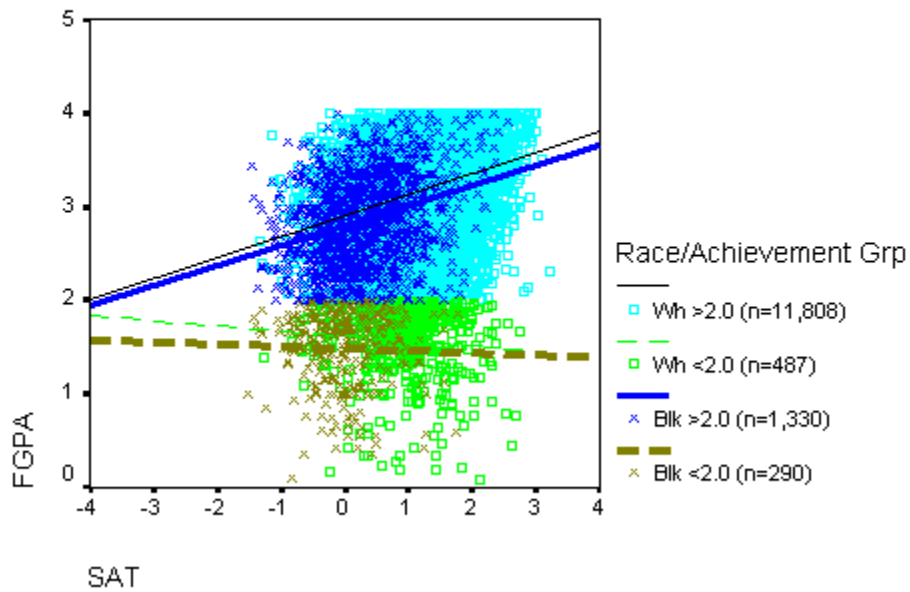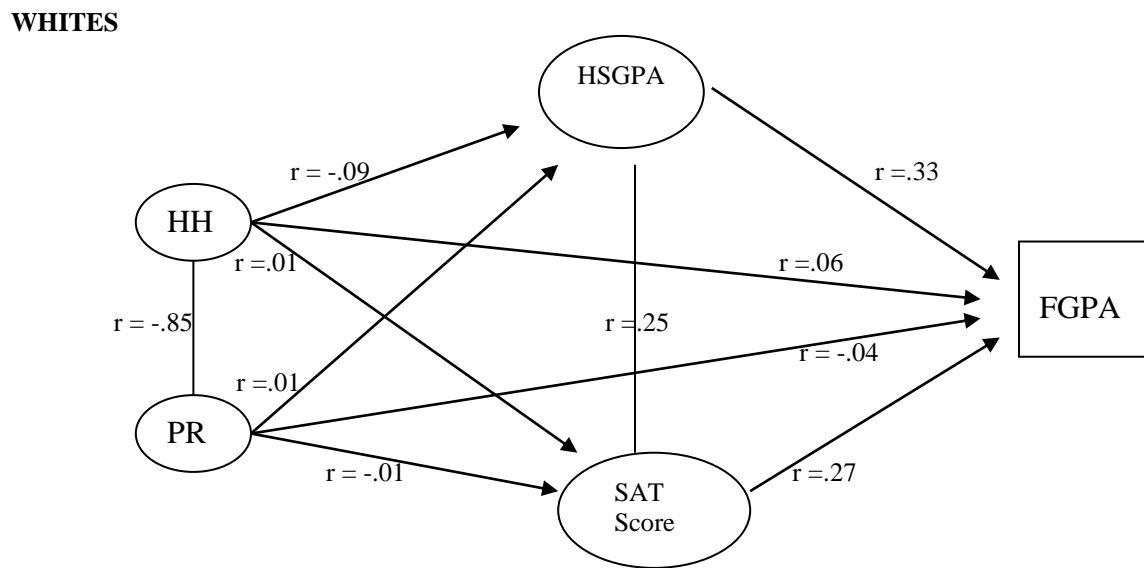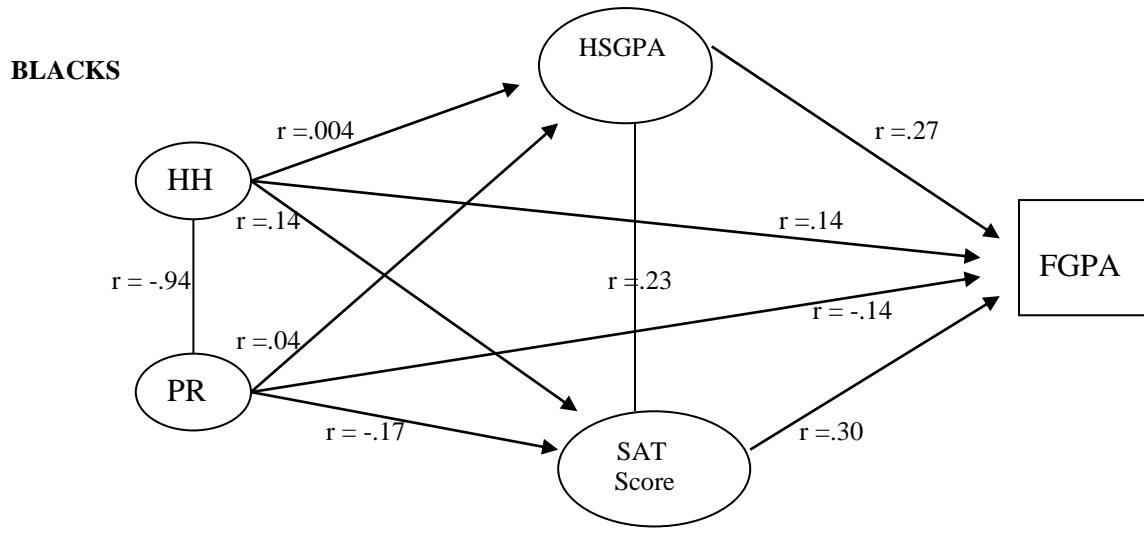
Figure 1. Scatterplot of SAT x FGPA by Race.

Figure 2. Scatterplot of SAT x FGPA by Race and Achievement Group.

Figure 3. Schematic representation of variable intercorrelations for college students by race.

BLACKS

WHITES

HSGPA: High School Grade Point Average
SAT: SAT score (standardized)
HHI: Median Household Income for student's county of residence
PR: Poverty Rate for student's county of residence
FGPA: First Semester College Grade Point Average