

Race, Class, Gender and Achievement at Selective Colleges and Universities

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Abstract

In recent years, women have surpassed men and now comprise the majority of students enrolled in post-secondary institutions in the United States- a reversal of an entrenched form of gender inequality that has implications for labor markets, marriage markets, and family formation (Buchmann and DiPrete 2006). Although the gender gap in enrollment is evident among all racial-ethnic groups, it is most pronounced among disadvantaged minorities (Lopez 2003). However, few researchers have explored the intersection of race, class and gender among students in post-secondary institutions. I address this gap by comparing black, white, Asian, and Hispanic male and female students' post-secondary achievement using the National Longitudinal Survey of Freshmen which compiles panel data on approximately 4,000 first-time freshmen who entered twenty-eight selective institutions in the U.S. in 1999 and graduated in 2003. I examine how students' socio-economic background, wealth, previous achievement, academic major, extra-curricular participation and paid employment affect their cumulative college grade point average (GPA). My results indicate that Hispanic and white undergraduates get more of a return in the form of higher cumulative GPA for increasing class status than do black and Asian students. In fact, class status has no effect on black males' collegiate GPA. I also find that female students get more of a return from having more privileged socio-economic backgrounds than male students. Additionally, my findings suggest that the female advantage in academic achievement is not uniform across all groups and settings. Asian, Hispanic, and white females continue to earn lower SAT scores than their male counterparts and many academic majors remain segregated by gender with those majors that translate into higher earnings after graduation being dominated by males. My results highlight the need for tutoring and academic enrichment programs which target the specific needs of students in each race-gender group.

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Introduction

Students attending selective colleges and universities in the United States come from diverse racial-ethnic and class backgrounds. In addition to this, female students and students with immigrant origins are over-represented at these institutions (Brunn 2009). However, even among students attending elite colleges and universities, Hispanics and blacks trail behind Asians and whites in almost all measures of socioeconomic status background. Larger percentages of black and Hispanic students are first-generation college students. These students work more hours than their more privileged counterparts and contribute a greater share of their earnings to pay for college. In general, less privileged students attend larger schools and are less likely to attend the ten most selective National Longitudinal Survey of Freshman (NLSF) institutions than their more privileged counterparts (Brunn 2009).

In this paper, I empirically test whether intersectional theory (Crenshaw 1989; Collins 2000; Crenshaw 1991) helps us illustrate race, class, and gender differences in collegiate achievement. Towards this end, I compare black, white, Asian, and Hispanic male and female students' academic achievement at selective post-secondary institutions participating in the National Longitudinal Survey of Freshmen (NLSF). I examine how students' previous academic achievement, choice of major, participation in extra-curricular activities and paid employment affect their cumulative college grade point average.¹ I also pay special attention to the effects of students' socio-economic background and indicators of accumulated wealth on grade point average.

Cumulative grade point average is one of the most important indicators of success in college. Collegiate GPA is especially important for students at selective colleges and

¹ I use students' self-reported grade point average. Massey et al.'s (2003) analysis of pilot data determined that students at the University of Pennsylvania's (one of the NLSF institutions) self-reported grades were quite similar to the grades they received on their transcripts.

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universities, many of whom go on to compete for admittance, scholarships, and fellowships at the country's top medical, law, business, and graduate schools. There is a well established literature which addresses racial-ethnic differences in academic achievement. For example, in *The Black White Test Score Gap*, Jencks and Phillips (1998) present evidence, which demonstrates that African Americans score lower than white Americans on vocabulary, reading, and math standardized tests, as well as tests that purport to measure aptitude and intelligence. They argue that the black-white test score gap appears before children enter kindergarten and continues into adulthood. Jencks and Phillips (1998) find that racial disparities are also very large at the top of the distribution. "In both 1982 and 1992 white high school seniors were about ten times more likely than black seniors to score in the top 5 percent of the national distribution on a composite measure of academic skills" (Jencks and Phillips 1998: 25).

Similarly, Hacker (1992) found that the SAT gap between blacks and whites is greater than two hundred points. As with most measures of academic achievement, Hispanics do better than blacks on average and Asians do better than whites. In addition to earning the lowest scores, blacks also earn lower grades in college than their SAT scores predict, and the degree of underperformance increases as SAT scores rise (Bowen and Bok 1998). Similarly, Massey et al. (2003) argue that, "once admitted to institutions of higher education, African Americans and Latinos continue to under-perform relative to their white and Asian counterparts, earning lower grades, progressing at a slower pace, and dropping out at higher rates" (p.2). For example, the researchers find that during the first semester attending a NLSF institution the average white or Asian student earned a B+ while the average Hispanic student earned a B- and the average Black student earned a C+.

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I seek to answer two sets of questions in this paper. How does choice of major, participation in extra-curricular activities, and/or working for pay during the academic year vary for each race, class, and gender group? How do these choices and behaviors impact cumulative college grade point average for each group of students?

Characteristics of Students Attending Selective Colleges and Universities

Students attending selective institutions are different than students who attend colleges and universities in the larger post-secondary universe. The median SAT score for the students who participated in the NLSF was 1243 and 71% of students graduated in the top 10% of their high school class (Massey et al. 2003). Massey et al. (2003) argue that the white and Asian students in their sample of selective colleges and universities in the United States have very similar background characteristics. Black and Hispanic students are also share similar to backgrounds. The authors assert that white and Asian students' socio-economic backgrounds are characterized by homogeneity. For example, the vast majority of white and Asian students come from households where two college educated parents are present and working in managerial or professional occupations (Massey et al. 2003).

In contrast, Massey et al. (2003) argue that the black and Hispanic students in their sample come from diverse social, economic, and demographic backgrounds. Blacks and Hispanics are more likely to be first-generation college students than whites and Asians (Brunn 2009). In contrast, white and Asian respondents are much more likely to have parents who earned at least one advanced degree. Only a small minority of Asian and white students are first-generation college students while about 40% of black and Asian students come from affluent backgrounds (Brunn 2009).

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As I mentioned earlier, most students in the NLSF maintained a B average in their freshmen year, but white and Asian students generally received the highest grades followed by Hispanic and black students (Massey et al. 2003). In this paper, I build upon this research by focusing on race, class, and gender differences in cumulative college grade point average. I examine how human and financial capital attributes such as parental education, occupation, income and indicators of wealth affect students' college performance.

Theoretical Framework

In this paper, I draw on the blocked opportunities framework (Hanson 1994; Kao and Tienda 1998; Mickelson 1990) to understand why men – and especially minority men- earn lower grade point averages and are less likely to graduate from selective post-secondary institutions on time. This framework posits that a significant number of youth are talented and motivated but do not achieve because of structural barriers and their placement in the stratification system. Hanson (1994) argues that educational systems replicate the status quo by using external criteria such as gender, race, and class, in order to select out youths who will be successful and to lower the educational aspirations of those who will not be successful.

Other scholars have argued that schools serve to reproduce inequalities in family background and to hinder social mobility. In *Schooling in Capitalist America*, Bowles and Gintis (1976) argue that schools serve to reinforce patterns of race, class, and gender inequality created by capitalism. Scholars have critiqued Bowles and Gintis (1976) for failing to account for how students from the same socioeconomic background can have different cultural orientations towards education (MacLeod 1995). I argue that gender is one factor that affects students' orientations toward school and degree attainment.

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As I mentioned earlier, I also ground this paper within the intersectionality framework (Crenshaw 1989; Collins 2000; Crenshaw 1991) which is found in legal studies and women's studies literature as well as in the literature on the sociology of race. In explicating the concept of intersectionality, Andersen and Collins (1998) argue that structural arrangements in society result in different systems of privilege and advantage. In addition to this, they remind us that race, class, and gender affect the experiences of all groups including those on the "top" and "bottom" of the social hierarchy. Browne and Misra (2003) also argue that studies of intersectionality need to move past an exclusive focus on women of color to examine the experiences of all groups. Consequently, in this paper, I examine the educational experiences of black, white, Hispanic, and Asian students.²

Landry (2007) argues that the intersectional framework rests on two assumptions. The first assumption is called simultaneity and it states that race, class, and gender cannot be separated. Although these characteristics of individual identity are always present, they may not be relevant in every situation. The second assumption is based on multiplicity. This assumption asserts that the relationship between race, class, and gender is interactive and not simply additive. In other words, the impact of the three categories is more than the sum of their parts. Landry (2007) concludes that both of these assumptions must be tested empirically. I empirically test these assumptions by examining the association between race, class, and gender and cumulative college grade point average.

Data and Methods

In this paper, I analyze panel data from the National Longitudinal Survey of Freshmen (NLSF). The National Longitudinal Survey of Freshmen was designed to test competing

² I do not examine the experiences of Native American students because there are not enough students in the sample. I examine the experiences of multiracial students elsewhere (Charles, Torres, and Brunn 2008).

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theoretical explanations for minority underachievement in post-secondary education (Massey et al. 2003). The NLSF compiles data on approximately 4,000 white, Asian, Hispanic, and black first-time freshmen who entered twenty-eight selective colleges and universities in the United States in the fall of 1999. Massey et al. (2003) chose the sample of institutions to be comparable to Bowen and Bok's (1998) *College and Beyond Survey*. The principal modification was the addition of the University of California at Berkley (Massey et al. 2003).

Respondents were interviewed in the fall of 1999 in order to obtain information about their pre-college experiences. In all, 3,924 respondents completed the baseline survey which yielded an 86% response rate. The respondents were then re-interviewed in the spring semester of 2000, 2001, 2002, and 2003. The overall response rates for the follow-up surveys were 95%, 89%, 84%, and 80% (Charles, Torres, and Brunn 2008).

NLSF has a variety of strengths which make it appropriate for answering my research questions. First, it is a longitudinal dataset which allows me to analyze information on respondents collected over an extended period of time - retrospective data from the time students were 6 years old until the semester they would have graduated from college if they graduated within four years. NLSF provides detailed insight into the collegiate experiences of students attending selective post-secondary institutions in the United States from 1999 to 2003. In addition to this, the large number of students in each racial/ethnic group allows me to disaggregate the sample by race, class, and gender.

I place students into class categories based on their parents' highest level of education received. If neither parent has attained a bachelor's degree, respondents are placed in the "working class" category. I also refer to these students as first-generation college students. I label students whose parents have attained one or two bachelor's degrees as their highest degree as

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middle class. Finally, students whose parents have one or two advanced degrees are classified as affluent. I chose to categorize students based on their parents' pooled educational attainment for two reasons. First, there is a large literature centered on the post-secondary experiences of first-generation college students. Second, students are better able to offer adequate assessments of their parents' education than they are of parental income and, to a lesser extent, occupational status. (However, I do use information about income and occupation as additional controls in my multivariate models.) Based on my classification, I find that approximately 23% of NLSF respondents are working class, 27% are middle class, and 50% are affluent. However, as I will discuss shortly, this distribution varies greatly by race/ethnicity.

For each of the variables of interest, I analyze the results by race/ethnicity, by race/ethnicity and gender, and by race/ethnicity and class background. When examining the data by gender and class, I highlight significant within-race differences. When testing for significant differences between group means, I conduct an analysis of variance to determine which groups are different from each other. When testing for significant differences using categorical data, I use a Chi Squared test.

Following the recommendation of Landry (2007), I use separate group analysis to empirically test intersectionality. Landry (2007) recommends this method when examining the effects of race, class, and gender as an alternative to interaction analysis. Instead of running one regression and using interaction terms, I run separate regressions for each race-gender group. Then, I add socio-economic status and indicators of wealth as explanatory variables and control for other variables known to affect grade point average. I also test for differences in the equality of regression coefficients using the method advocated by Paternoster et al. (1998). More specifically, I estimate an Ordinary Least Squares Regression predicting students' cumulative

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college grade point average (GPA) in the winter semester of their senior year. The GPA variable is regressed on previous academic achievement, school funding sources and college major controlling for socio-demographic characteristics and college characteristics.

Descriptive Results

I begin by conducting descriptive analyses using variables which previous research has shown to affect grade point average. (See Table 1 for a description of all the variables used in the paper.) Table 2 presents frequencies and means for high school academic preparation by race/ethnicity. Between two-thirds and three-quarters of students in the National Longitudinal Survey of Freshmen attended public high schools. Twenty-one percent of Hispanic students attended private religious schools. Given that 70% of Hispanic students in the NLSF report being Catholic (Massey et al. 2003), a large proportion of these students probably attended Catholic schools. Bryk et al. (1993) argue that Catholic high school students are more likely to aspire to attend college, are less likely to drop out of high school, and have higher levels of achievement in Math and Science than public high school students. Variation in achievement among students attending Catholic high schools is also less strongly related to class and race (Bryk et al. 1993). Approximately 14% of all NLSF students attended private nonreligious schools. These schools are likely prestigious preparatory and/or boarding schools. Cookson and Persell (1985) have found that students who attend elite preparatory schools are more likely to attend selective colleges than public high school students with similar aspirations, SAT scores, and family backgrounds.

[Tables 1 and 2 about here]

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Given that the National Longitudinal Survey of Freshmen chronicles the experiences of students attending selective colleges and universities, one would expect the respondents to have been very good students in high school. This is indeed the case. Students in each racial-ethnic group reported averaging above a 3.6 for mean high school grade point average. In general, white and Asian students have the highest grade point average, followed by Hispanic and then black students. Combined SAT scores follow the same overall pattern. However, Asian students score higher than white students on the SAT. The number of advanced placement (AP) courses that are offered by a high school is one indicator of how well the school prepares students for college. Massey (2006) finds that minority students at segregated schools were less likely to take AP classes than their counterparts who attended integrated schools. I find that, on average, Asian students pass the most advanced placement exams followed by white, Hispanic, and black students.³

Table 3 examines whether there are significant differences in high school preparation between male and female students within the same racial-ethnic group. My results indicate that male and female students from the same racial group attend the same types of high schools. However, there are widespread differences in achievement. Asian, Hispanic, and white male students score higher than same-race female students on the SAT. Asian and Hispanic males also report passing more AP exams than their female counterparts. It appears that, on average, male students continue to perform better on standardized tests (such as AP exams and the SAT) than female students. Notably, these gender differences are not significant among black students. Additionally, black females are the only group which receives significantly higher grades than

³ Taking and passing an AP exam is also an indicator of student motivation and academic ability. In auxiliary analyses, I used the number of AP classes taken. The results were very similar; however the number of AP exams passed was a better fit for the regression analyses.

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their male counterparts. Previous research by Mickelson (1990) has concluded that being female is much more important in determining black student's achievement than white students'.

[Table 3 about here]

Tables 4a and 4b examine within-race variation in high school preparation by class status. Differences in preparation are highly significant and quite prevalent within each racial-ethnic group. Affluent Asian and white students were less likely to attend a public high school and more likely to attend a private school than their middle class and working class counterparts. Similarly, working class black students were more likely to attend public school than their middle class and affluent counterparts and affluent blacks were more likely to attend a private school than their working class peers. Approximately 71% of working class Hispanics attended a public high school as compared to 61% of affluent Hispanics. Conversely, affluent Hispanic students were more likely to attend a private school than their less privileged peers. There are few intra-race differences in attendance at religious high schools with the exception of black working class students who are less likely to attend these schools than middle class and affluent black students.

[Tables 4a and 4b about here]

Surprisingly, for Asian, Hispanic, and white students mean high school grade point average does not vary with respondents' class status. However, affluent black students earn slightly higher GPAs than working class black students. Class differences are more readily apparent when I examine performance on standardized exams. This may indicate that parents who have access to more financial resources are able to pay for expensive SAT preparation classes and materials for their children. Affluent Asian students earn higher SAT scores than their middle and working class counterparts. Working class black, Hispanic, and white

respondents report lower SAT scores than their more privileged counterparts. Middle class white students also earn significantly lower combined SAT scores than affluent whites. I find similar results when I examine advanced placement exams. Affluent black and Hispanic students pass more AP exams than their working and middle class peers. Working class white and Asian students pass fewer exams than middle class and affluent white and Asians. The difference between middle class and affluent students is also highly significant among Asians. These findings are similar to the results for gender – indicating that within-race variation in achievement is more apparent for standardized exams such as the SAT and AP. Taken together, the results in Tables 4a and 4b indicate that students from more privileged class backgrounds in each racial-ethnic group are better prepared for the academic rigors of post-secondary education than their less privileged counterparts.

I will now discuss race, class, and gender differences at the collegiate level. Table 5 details racial-ethnic differences in academic major, cumulative grade point average, and participation in junior varsity or varsity sports. The most popular major of study varies for each racial-ethnic group. Asian students' modal major is Business while black and Hispanics are most prevalent in the Social Sciences and white students most often choose to major in the Humanities.⁴ Asian students are more likely to major in Math, Science, and Engineering than black and Hispanic students. White students are also more likely to major in the aforementioned Science, Technology, Engineering, and Mathematics (STEM) fields than black students. The “other major” category is comprised of medical related majors and interdisciplinary majors. Black students are more likely than white and Hispanic students to choose these types of majors.

[Table 5 about here]

⁴ The disciplinary categories were created by collapsing a more detailed list of majors into large groups. Majors do not total 100% because some students do not report their major. I include a dummy for those who are missing on academic major in the linear regressions predicting cumulative college GPA.

Racial-ethnic differences in cumulative grade point average, which was measured during the winter of the respondents' senior year of college, are highly significant.⁵ The college grade distribution is very similar to what I found when I examined mean high school grade point average although reported grade point averages in high school appear to be higher. The average cumulative college grade point average for NLSF students is 3.29. Asian and white students earn higher GPAs than both black and Hispanic students. Hispanics students also earn higher GPAs than blacks. I examine sports team membership because it is one of the most time-consuming extra-curricular activities in college and may distract students from their academic responsibilities. I find that Asian and Hispanic students are significantly less likely than black and white students to participate in junior varsity or varsity sports.

Table 6 examines variation in collegiate major, grade point average, and involvement in team sports at the intersection of race-ethnicity and gender. My results indicate that gender segregation by major exists at selective colleges and universities in the United States. Asian, black, and female students are more likely to major in the Humanities than their male counterparts. Black and Hispanic female students are more likely to choose Social Science majors than black and Hispanic males. In sharp contrast, Asian, Hispanic, and white males are more likely to declare majors in Engineering. Similarly Jacobs (1999) demonstrated that men earned close to 85% of engineering degrees in 1993. Hispanic and white males also major in Business more often than Hispanic and white females. Finally, Asian males are more likely to major in Math and Science than Asian female students. Taken together these results indicate that female students continue to be more likely to select "soft" majors such as the Humanities and

⁵ The author wishes to thank Nicholas Ehrmann, Princeton University, for his coding of the cumulative college grade point average variable. The variable's coding reduces the amount of missing data by calculating semester GPAs for the amount of semesters that the student was enrolled in an NLSF institution. Data is available for 3815 students or 97.2% of the original sample (Ehrmann and Massey 2008).

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Social Sciences while male students choose “hard” majors such as Engineering and Science. These findings are in agreement with previous research that has documented a slowdown in the trend toward gender integration of college field of study after 1985 (Jacobs 1995). Charles and Bradley (2002) also argue that the belief in gender egalitarianism has done more to erode segregation across level of institution than field of study.

[Table 6 about here]

I also find significant within-race gender gaps in cumulative college grade point average for some groups. Black and white females earn higher cumulative GPAs than black and white males. Among black students, this discrepancy may be related to sports team membership. Black males are much more likely than black females to participate in organized sports. Approximately 10% of black male NLSF respondents play on a junior varsity or varsity sports team. This percentage is considerably higher than the proportion of males in other racial-ethnic groups who report participating in organized sports. Less than 2.5% of Asian and Hispanic male students play on a sports team. Approximately 5% of white male students report team membership. There are no significant within-race gender differences in sports team membership for the other groups.

Tables 7a and 7b illustrate differences by class status within-race for collegiate major, grade point average, and sports membership. With the exception of cumulative grade point average, these race-class differences are not as widespread as the differences I observed for high school academic preparation. Affluent black and white students are more likely to major in the Humanities than their less privileged same-race counterparts. In contrast, working class black and white respondents are more likely to declare majors in Math and Science than their affluent peers. Perhaps this finding indicates that students from less privileged backgrounds choose to major in fields where they expect to be able to easily find a relatively high paying job after

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graduation (Math and Science) as opposed to fields where the job prospects are not as clear and may require additional education (the Humanities). However, this pattern is not as evident among Hispanic and Asian students. Working class Hispanic students are more likely to major in the Social Sciences than middle class Hispanics. Asian and black working class students are less likely to major in Business than their more advantaged counterparts. However, for Hispanic students a different pattern emerges whereby affluent students are less likely to major in Business than their middle class peers.

[Tables 7a and 7b about here]

Affluent black and Asian students earn higher cumulative grade point averages than their less privileged peers. However, it appears that Hispanic and white students get more of a return for increases in class status. For these students, GPA increases by approximately 0.10 for each successive class status. On average, student participation in junior varsity or varsity sports is not associated with social class background. However, black middle class students are more likely to play sports than working class students.

Factors Affecting Racial-Ethnic Differences in Achievement

Table 8 presents the baseline model results for an Ordinary Least Squares regression predicting cumulative college grade point average. The regressions are run separately for each racial-ethnic group. Among black and white students, males earn grade point averages that are 0.12 and 0.06 lower than black and white females, respectively. After adding measures of students' class status in Table 9, the male effect for blacks remains unchanged. However, the coefficient for affluent is highly significant indicating that affluent black students earn GPAs that are 0.14 higher than working class black students. The negative male effect for white students increases slightly after controlling for class. Both middle class and affluent white students earn

higher cumulative grade point averages than their working class counterparts. This is also true for Hispanics. However, the class effect among Asian students is more similar to blacks whereby only affluent students earn higher GPAs than their working class peers.

[Tables 8 and 9 about here]

Table 10 illustrates the intersection of race, class, gender, and achievement. I present the baseline model for the cumulative grade point average regression run separately for each race-gender group. The most interesting finding in this table is that class status has no effect on black males' grade point average. Disaggregating by sex also reveals that both middle class and affluent black females earn higher GPAs than working class black females. I also show that among Hispanic and White students, females are the group who benefits from middle class status. Hispanic and White middle class women have GPAs that are 0.10 and 0.20 higher than their working class peers respectively.

[Table 10 about here]

Asian Students

Table 11 presents results for the final model of an ordinary least squares regression predicting cumulative college grade point average. After controlling for class and socioeconomic status indicators, immigrant origins, high school preparation, college major, college characteristics and school funding sources, Asian male students earn GPAs that are 0.05 lower than their female counterparts. Recall that the male coefficient was not significant for Asian students in the regressions that I presented in Tables 8 and 9. The gender coefficient did not become significant in the intermediate models (analyses not shown) until I controlled for combined SAT score and the number of AP exams that students passed. This corroborates my descriptive finding that Asian males passed more AP exams and performed better on the SAT

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than Asian females. However, after adding controls for college major the gender coefficient was once again statistically insignificant. This logically follows given that Asian males were more likely than females to declare more difficult majors such as Math, Science, and Engineering. Finally, after controlling for the amount of hours students worked Monday through Friday during the academic year, the male coefficient is significant again indicating that Asian females worked more hours than their male counterparts.

[Table 11 about here]

I now turn my attention to the final model as presented in Table 11. After controlling for gender and class, I introduce variables that previous research has shown to be associated with socioeconomic status. I find that students who report ever being on public assistance earn GPAs that are 0.11 lower than their counterparts who have never received assistance. I also control for students' generational status but these variables do not prove to be significant. (In auxiliary analyses I control for region of origin, but the results are unchanged.)

As expected, most of the high school preparation variables have a significant positive effect on cumulative grade point average in college. Mean high school grade point average is highly significant and is the most powerful predictor in the model. For each one point increase in high school GPA students' cumulative college GPA increases by one half of a point. The effects of standardized exams are noticeably weaker. As Asian students' SAT score increases by 100 points their college grade point average increases by 0.03 and for each additional AP exam passed their GPA increases by 0.02. I also find that Asian respondents who did not declare a major (or who chose to skip that survey question) earned cumulative college GPAs that were 0.08 lower than students who chose to major in Business. Finally, for every additional hour Asian students spent working during the week their grade point average decreases by 0.01. The

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final model explains 30% of the variance in cumulative college grade point average for Asian students.

Black Students

Recall that in the baseline models presented in Tables 8 and 9 black males' cumulative college grade point average was 0.12 lower than black females' GPA. After controlling for parental income, occupation, homeownership, receipt of public assistance and household composition in intermediary analyses (not shown) the negative coefficient for black males increased to 0.13. Controlling for these variables also resulted in the affluent coefficient becoming insignificant. (This indicates that the positive effects of affluent status were being expressed through the aforementioned socioeconomic background indicators.) Adding mean high school GPA to the model reduced the male coefficient to -0.11 because, on average, female students earned better grades in secondary school.

In the final model shown in Table 11, black males earn GPAs that are 0.09 lower than black females. (This indicates a 25% reduction in the black female-black male grade point average gap between the baseline model and the full model.) Each one percentage point increase in average neighborhood and school segregation over the life time decreases black students' grade point average by 0.001. As expected, high school academic preparation is positively associated with collegiate achievement. Black students who attend private high schools earn higher grade point averages than their peers who attend public schools. For every 100 point increase on the SAT combined score and every additional AP exam passed students' GPAs increase by 0.03 and 0.04, respectively. Mean high school grade point average is also significant and positive. As we observed when examining the model for Asian students, high school GPA is

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a much stronger predictor of cumulative college GPA than SAT scores or the number of AP exams black students pass.

Black students who major in Engineering earn GPAs that are 0.20 lower than their counterparts who major in the Social Sciences. The effect of this coefficient is second in magnitude only to mean high school GPA (0.35). Students who are missing on the major variable also earn lower grade point averages. Interestingly, for every one percentage point increase in the population of black students' in the respondents' college student body, black students' GPA increases by 0.004. Black respondents also perform better at post secondary institutions located in rural parts of the country than they do at urban colleges and universities. In auxiliary analyses (not shown), I also controlled for the institutions' region of the United States, but these variables did not add explanatory power to the model. The final model accounts for 32% of the variance in black students' collegiate grade point average.

Hispanic Students

Hispanic NLSF respondents are similar to Asian respondents in that gender was not significant in the baseline models depicted in Tables 8 and 9. After controlling for Hispanic students' parental occupation and household composition in the intermediate models (not shown), middle class status became insignificant. Given that Hispanic males scored higher than Hispanic females on the SAT score and passed more AP exams, holding values of the high school preparation variables constant made the male coefficient significant with male students earning GPAs that were 0.09 lower than females. Controlling for collegiate major and college experiences causes the affluent variable to lose significance. Accounting for differences in how students paid for the total cost of college, caused the variable which represents both parents living in the household to become negative. This indicates that the primary benefit to having both

parents in the home was likely the increase in parents' financial contributions towards the cost of college.

In the full model (Table 11) Hispanic males earn grade point averages that are 0.08 lower than Hispanic females. Students whose parents work in managerial and professional occupations and students who attend private high schools earn higher GPAs. Mean high school grade point average has a powerful positive effect on college GPA. Increases in SAT score and total number of AP exams passed also have positive effects. However, Hispanics students who attend one of the ten most selective colleges in the NLSF (based on the institution's median SAT score) earn GPAs that are -0.11 less than students who attend one of the other NLSF institutions. Similarly, Hispanics who attend one of the colleges that has more than 10,000 students earn GPAs that are -0.09 lower than students who attend schools with less than 5,000 undergraduates. The final model explains 27% of the variance in GPA.

White Students

White students are the only racial-ethnic group whose male coefficient in the final model (as shown in Table 11) is virtually the same as in the baseline models (Table 8 and 9). This finding suggests that white males had positive attributes on most of the explanatory variables in the final model and that the causes of males' lower cumulative grade point average are yet to be accounted for. The effects of middle class and affluent status have declined slightly but both variables remain highly significant in the final model. Again, this is not true for Asian, black, or Hispanic students. This evidences the important role that class plays in the academic achievement of white students.

After controlling for high school preparation in the intermediate models (not shown), the male coefficient becomes more negative owing to white men's higher SAT scores. The middle

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class and affluent coefficients are also less powerful after I hold high school academic preparation constant. Recall that in Table 4b, I demonstrated that type of high school, SAT score, and the number of AP exams passed were all associated with increases in class status among white students. After adding collegiate major to the model the white male coefficient returns to -0.06. This effect is consistent with my descriptive results which indicate that white male students are more likely to major in Engineering and Business.

As I mentioned in the previous paragraph, both sex and class remain significant in the final model (Table 11) for white students. Male students earn cumulative college grade point averages that are 0.06 less than their female counterparts while middle class and affluent students report grades that are 0.11 and 0.17 higher than their working class counterparts, respectively. As I observed with black and Hispanic students, white students who attend private high schools earn higher grades in college than those who attend public high schools. (Type of high school attended has no effect on Asian students' GPA.) White students who scored higher on the SAT and passed more AP exams received positive returns to their collegiate grade point average. Additionally, for every one point increase in whites' mean high school GPA, college GPA increased by 0.42.

White students who declared majors in Business and Engineering (and those students who did not report a major) earned lower grades than their peers who majored in the Humanities. Students who transferred from the university where they enrolled in the fall of 1999 actually earned higher cumulative grade point averages than students who remained at the same institution. This indicates that students who transferred may have enrolled in less prestigious institutions. Lastly, white students who participated in junior varsity or varsity sports earned lower grades than students who did not. (Despite the fact that black males' participation in

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organized sports was roughly twice the rate of white males', the coefficient for junior varsity or varsity sports is insignificant in the model predicting black students GPA.) The final model explains 27% of the variance in GPA.

Factors Affecting Race-Gender Differences in Achievement

Table 12 presents the final model for an ordinary least squares regression that predicts cumulative college grade point average while controlling for class and socioeconomic status indicators, immigrant origins, high school preparation, college major, college characteristics and school funding sources. The analyses are conducted separately for each race-gender group. My results are as follows.

[Table 12 about here]

Asian Students

I will begin by discussing the variables that are significant for both Asian male and female students. In the final model, each one point increase in high school grade point average increases cumulative college GPA by 0.42 and 0.59 for Asian females and males, respectively. The male and female high school GPA coefficients are significantly different at $p < 0.10$. This indicates that Asian males benefit more than Asian females from earning higher grade point averages in secondary school. Both Asian male and female students who pass more AP exams earn higher cumulative GPAs.

Disaggregating by gender reveals that the significant public assistance coefficient in Table 11 for Asian students was actually driven by the experiences of male students. Table 12 illustrates that Asian men who have ever been on public assistance earn GPAs that are 0.14 lower than those who have never been on assistance, net of other factors. In contrast, the significance of the coefficients for combined SAT Score and number of hours worked in Table

11 can be attributed to Asian females. For every 100 point increase in SAT score Asian female students' college GPA increases by 0.04 and for every additional hour worked their GPA decreases by 0.01. The final model explains 29% and 38% of the variance in Asian females' and Asian males' cumulative college grade point average, respectively.

Black Students

I now move on to variables which significantly affect black males' and females' college grade point average. Each one point increase in high school grade point average is associated with a 0.29 increase in cumulative college GPA for black female students. The corresponding coefficient for black males is 0.39. Passing an additional AP exam yields a 0.03 and 0.05 increase in GPA for black females and males, respectively. Black male and female respondents who attend institutions with more black students earn GPAs that are 0.01 and 0.004 higher for each additional percentage point in their share of the student body. The coefficients for high school GPA, number of AP exams, and student body composition are not significantly different for black males and females indicating that these variables have similar effects on cumulative college grade point average for both groups of students.

My results illustrate that many more factors significantly impact the cumulative college grade point average of black females than black males. With the exception of the three variables I discussed above, none of the other coefficients are significant in the final model for black males. This indicates that the significance of the coefficients for neighborhood and school segregation, type of high school attended, college academic major, and urbancity of the institution attended in Table 11 were applicable to black female NLSF respondents. For each percentage point increase in the percent black and Hispanic in black female students' schools and neighborhoods, their cumulative college GPA decreases by 0.002. Black women who did not

report a major or who majored in Math and Science, Business, and Engineering earned lower grades than their peers who declared a major in the Social Sciences. The negative effect of Engineering is especially powerful and highly significant (-0.28). Conversely, for each additional percentage point of the total cost of college paid by scholarship, black women's cumulative GPA increases by 0.31. Attending a private high school also increases females' GPA by 0.09. The full model explains 35% of the variance in black females' grade point average and 37% of the variance in black males' GPA.

Hispanics

There is only one variable that is significant for both Hispanic male and female NLSF respondents as presented in the full regression model (Table 12). For every one point increase in high school grade point average Hispanic females' cumulative college GPA increases by 0.28. The corresponding effect for Hispanic males is 0.34. These coefficients are not significantly different from one another. Hispanic males who major in the Humanities earn GPAs that are 0.24 higher than their peers who major in the Social Sciences. The significant negative effect of attendance at one of the most elite NLSF institutions that I documented in Table 11 can be attributed to Hispanic male students. Hispanic males who attend one of the ten schools with the highest median SAT scores earn GPAs that are 0.16 lower than those who do not.

Hispanic females whose parents work in managerial and professional occupations earn higher GPAs than those whose parents work in other professions. Female students who perform better on the SAT and pass more AP exams also earn higher grade point averages. Hispanic females who did not declare a major or who did not answer the survey question earned GPAs that were 0.13 lower than those who listed a major. Surprisingly, having both parents present in Hispanic females' households, net of other factors, negatively impacts their cumulative college

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grade point average. The final model explains 33% and 26% of the variance in Hispanic females' and Hispanic males' collegiate GPA, respectively.

White Students

White male and female respondents have more predictors in common than black, Asian, and Hispanic males and females. In sum, four variables significantly impact white male and female students' cumulative college grade point average. As high school GPA increases by one point, college GPA increases by 0.46 for white females and 0.41 for white males. Affluent males and females also earn GPAs that are 0.17 and 0.16 higher than their working class counterparts. Majoring in engineering and participating in junior varsity or varsity sports have quite similar negative effects on white male and female students' grade point averages. None of these coefficients are significantly different from each other for males and females.

In the final model, I illustrate that white males (and not their female counterparts) earn higher GPAs in college when they have attended private as opposed to public high schools. White male students who received higher scores on the SAT also reported higher collegiate grade point averages. Table 12 also reveals that it is middle class white females (and not males) who earn higher cumulative college grade point averages than their working class counterparts. It appears that middle class white females are actually more advantaged relative to their working class peers than affluent white females. However, the middle class and affluent coefficients are not significantly different from each other. White female students also benefit from passing more AP exams. However, white women who are missing on major and those who attend institutions in the suburbs (as compared to urban areas) earn lower cumulative college grade point averages.

Conclusions

Throughout this paper, I have documented variation in high school and college academic achievement by race/ethnicity, class, and gender. I have found widespread within-race class differences in type of high school attended, SAT score, and number of AP exams passed. I have also shown that a greater percentage of Asian and white students attend public high schools than Hispanic and black students. However, Asian and white respondents continue to earn higher grade point averages, SAT scores, and pass more advanced placement exams than their black and Hispanic peers. This is likely due, in part, to differences in the quality of public schools that different racial-ethnic groups attend. I also found widespread within-race gender differences in achievement despite the fact that same-race males and females attend the same types of high schools.

These gender differences in achievement vary by racial-ethnic group. For example, I argue that the experiences of black students appear to be different from those of Asian, Hispanic, and white students. Black females are the only group that has a significantly higher mean high school grade point average than their male counterparts. In addition to this, black males do not perform better on standardized exams than their female peers as I observe for Asian, white, and Hispanic males. Finally, only black students exhibit significant class differences in mean high school grade point average.

The collegiate grade distribution by race-ethnicity is quite similar to the pattern exhibited for overall high school grade point average despite the fact that all students earn lower grades in college. However, black and white females earn higher cumulative college GPAs than their male counterparts. I also present evidence of substantial academic major segregation by both race-ethnicity and gender. However, there appear to be fewer race-class differences in choice of college major. Nevertheless, both my descriptive and multivariate results lead me to conclude

that Hispanic and white students get more of a return in the form of higher cumulative college grade point average for increasing class status than do black and Asian students. In fact, class status has no effect on black males' collegiate grade point average. I also find that female students get more of a return from having more privileged social class backgrounds than male students. In the baseline model, black, white, and Hispanic middle class and affluent females earn higher grade point averages than their working class female counterparts. White female students are the only race-gender group for which middle class and affluent status is still significant in the final model. In other words, the positive benefits associated with having parents who have attained bachelor's and/or masters' degrees are more readily apparent among white and Hispanic students and among female students. Future research should explore whether this advantage remains when examining other academic outcomes and when using other methods of measuring class background.

The results presented in Table 12 indicate that different factors affect cumulative college grade point average for each group of students. Attempting to lump the eight sub-groups together would hide this variation. In fact, there is only one variable that is significant for all eight race-gender groups. This variable is mean high school grade point average and, not surprisingly, it also appears to be the strongest predictor of cumulative college grade point average. As expected, students who earned better grades in high school also earn higher grades in college. Interestingly, I find that Asian males get a bigger return in the form of higher collegiate GPA from receiving better grades in high school than Asian females. This difference is not significant for black, white, and Hispanic males and females.

A variety of factors differentially impact the grade point average of same-race males and females. Having ever been on public assistance lowers the grades of Asian males while working

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during the school week has negative implications for Asian females' collegiate grade point average. Hispanic males who attend one of the ten most selective institutions in the NLSF earn lower GPAs while Hispanic females who have both parents in the household, net of other factors, report lower GPAs. I find that many more factors (such as segregation over the lifetime, type of high school attended, and college major) significantly impact the cumulative college grade point average of black females as opposed to black males. (Overall, fewer variables were significant in predicting males' grade point average than their female counterparts' GPA.) Finally, white males benefit from attending private high schools and earning higher SAT scores while white females benefit from passing more AP exams.

I do find some similarities in factors that affect the cumulative college grade point average of same-race males and females. Increasing representation of blacks in the student body of the institution attended has positive effects on the GPA of black males and females. In contrast, the proportion of own racial-ethnic group does not have a significant effect on the grade point average of Asians, Hispanics, or whites. Similarly, white males and females who participate in varsity or junior varsity sports both earn lower grades than their peers who do not play sports. This variable has no effect on the other groups of students' GPA. In fact, white male and female students have more significant variables in common than any other same-race males and females. This may indicate that race is more salient than gender for white students' cumulative college grade point average in this particular context.

As I stated earlier, the goal of this paper was to empirically test whether intersectional theory (and its simultaneity and multiplicity assumptions) helps to illustrate race, class, and gender gaps in cumulative grade point average at selective colleges and universities. My multivariate analyses indicate that different socio-economic status background factors and

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indicators of wealth (net of other factors known to be associated with achievement) have an effect on the cumulative GPA of each race-gender group. Additionally, class background has stronger effects on white and Hispanic students' and female students' collegiate grade point average than their black and Asian and male counterparts' GPA. Overall, black males get the smallest return from having parents with post-secondary degrees while white females reap the greatest benefit. These results suggest that while race, class, and gender are always present (simultaneity) they may not be relevant in every situation i.e. the insignificance of class background in the baseline model predicting black males' cumulative grade point average. In contrast, the significance of both middle class and affluent status in the full model predicting white females' GPA highlights the interactive relationship (multiplicity) between race, gender, and class background. Consequently, intersectionality does appear to be a useful guiding framework for examining grade point average in this context.

My findings also suggest that the female advantage in academic achievement is not uniform across all groups and settings. For example, Asian, Hispanic, and white females do not earn higher mean grade point averages than their same-race male counterparts in high school. These students actually earn lower SAT scores than their male peers. Cumulative college grade point average does not vary by gender for Asian or Hispanic students. In addition to this, many academic majors remain segregated by gender with those majors that translate into higher earnings after graduation being dominated by male students.

My results indicate that selective post-secondary institutions seeking to address the achievement gap between racial-ethnic groups and those seeking to close within-race gaps by class and gender need to undertake a series of actions in order to accomplish these goals. First, tutoring and academic enrichment programs must be created (and maintained) which target the

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specific needs of students in each race-gender group. For example, programs should be implemented which encourage female students and racial-ethnic minorities to enter fields of study where they are under-represented such as Math, Science, and Engineering. (The Society of Women Engineers and the National Society of Black Engineers are good examples of organizations which provide these types of services on college campuses.) Given that students in these fields tend to earn lower grades than those who major in the Social Sciences, academic help from professors and graduate students must be readily available.

Second, colleges and universities which have small minority student populations must focus on helping these students become engaged and attached to their campuses. This is particularly true for black students who tend to earn higher grade point averages at institutions where they make up larger shares of the student population. Special attention must also be given to the academic and social adjustment of first-generation college students – especially those attending the most elite institutions in the U.S. Third, large institutions (those with more than 10,000 students) must provide additional tutoring and mentoring for undergraduates. Tutoring and mentoring is also particularly relevant for Hispanic males in the most elite segments of American higher education given that they tend to earn lower cumulative GPAs at these institutions.

My findings also have implications for secondary education. I have highlighted the importance of mean high school grade point average, SAT scores, and Advanced Placement exams for cumulative college GPA. In order to close gaps by race, gender, and class in college; these gaps must be eradicated in high school and elementary school. Future research on this topic is needed in the primary and secondary arenas. Additionally, similar research should be conducted among colleges and universities in the larger post-secondary universe to determine if

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the gaps outlined in this paper are wider, narrower, or essentially the same among students attending less selective institutions.

In my multivariate models predicting GPA, black males have less significant variables than most groups. Additionally, the male coefficient for whites essentially remains unchanged from the baseline to the full model. Middle class and affluent status also remain significant for whites (and especially females) in the final model. These results suggest that more research is needed to determine additional causes of males' academic underperformance both in high school and in college and to understand the underlying mechanisms of class advantage in cumulative grade point average among middle class and affluent white students.

Table 1 Description of Variables Used in Analyses

Variable Description	Coding
<i>Gender</i>	
Female	1=yes, 0=no
Male	1= yes, 0=no
<i>Class/Socioeconomic Status Indicators</i>	
Working Class	1=both parents have no college degree, 0=no
Middle Class	1= parents have 1 or 2 bachelor's degrees, 0=no
Affluent	1= parents have 1 or 2 advanced degrees, 0=no
Median Parental Income (w3)	\$0 - \$200,000
Parents in Managerial/Professional Occupation	0=no, 1= 1 parent, 2= 2parents
Parents Own Home	1=yes, 0=no
Since 6, Ever been on Public Assistance	1=yes, 0=no
Percent Black and Hispanic in Neighborhood and School over the Lifetime	0% to 100%
Both Parents in Household	1=yes, 0=no
Household Size	1-36
Number of Children in Household	1-10
<i>Immigrant Origins</i>	
First Generation	1=Respondent Born Abroad, 0=no
Second Generation	1=Respondents' Parent(s) Born Abroad, 0=no
Third Generation	1=Native Born with Native Born Parents, 0=no
<i>Racial Background</i>	
White Hispanic	1=yes, 0=no
Black Hispanic	1=yes, 0=no
Multiracial Hispanic	1=yes, 0=no
<i>High School Preparation</i>	
Public High School	1=yes, 0=no
Religious High School	1=yes, 0=no
Private High School	1=yes, 0=no
Overall High School Grade Point Average	0.0 – 4.0 (Mean of English, History, Math, Natural Science, Social Science, Foreign Language)
SAT Combined Score (w3)	0 - 1600
Total Number of AP Exams Passed	0 – 10
Missing College Major	1=yes, 0=no
Humanities	1=yes, 0=no
Communication	1=yes, 0=no
Social Sciences	1=yes, 0=no
Math and Science	1=yes, 0=no
Business	1=yes, 0=no
Engineering	1=yes, 0=no
Other Major	1=yes, 0=no
<i>College Experiences</i>	
Transferred	1=yes, 0=no
Missed a Survey Wave	1=yes, 0=no
Participated in JV or Varsity Sports	1=yes, 0=no
<i>College Characteristics</i>	
Attended one of 10 Most Selective Institutions	1=yes, 0=no
Percent of Student's Racial-Ethnic Group in Institution	0% to 100%
Small College	1=under 5,000 students, 0=no
Medium College	1=5,000 – 10,000 students, 0=no

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Large College	1=over 10,000 students, 0=no
Urban Location	1=yes, 0=no
Rural Location	1=yes, 0=no
Suburban Location	1=yes, 0=no
<i>School Funding Sources</i>	
Student Earnings' Percent of College Cost	0% to 100%
Scholarships' Percent of College Cost	0% to 100%
Parents Contributions' Percent of College Cost	0% to 100%
Hours worked Monday thru Friday	0 to 120

Table 2 NLSF High School Preparation by Race/Ethnicity

	Asian	Black	Hispanic	White	Significance
<i>High School Type</i>					
Public	75.99%	69.84%	65.97%	72.19%	*** b,c,e
Religious	9.72%	15.38%	20.65%	12.58%	*** b,c,e,f
Private	14.17%	14.77%	13.25%	14.97%	ns
<i>Academic Preparation</i>					
Mean GPA	3.80	3.60	3.72	3.80	*** b,c,d,e,f
SAT Score	1391	1217	1297	1367	***
AP Exams Passed	3.27	1.44	2.26	2.59	a,b,c,d,e,f ***
N	833	819	770	755	

Notes: ns= not significant; * p<.05 **p<.01 ***p<.001

a = significant difference between Asians and whites; b = significant difference between Asians and blacks; c = significant difference between Asians and Hispanics; d = significant difference between whites and blacks; e = significant difference between whites and Hispanics; f = significant difference between blacks and Hispanics

Table 3 NLSF High School Preparation by Race/Ethnicity and Sex

	<i>Asian Female</i>	<i>Asian Male</i>	<i>Black Female</i>	<i>Black Male</i>	<i>Hispanic Female</i>	<i>Hispanic Male</i>	<i>White Female</i>	<i>White Male</i>
<i>High School Type</i>								
Public	75.48%	76.67%	69.60%	70.34%	65.51%	66.67%	73.27%	70.94%
Religious	10.36%	8.89%	14.93%	16.35%	18.87%	23.30%	11.39%	13.96%
Private	14.16%	14.17%	15.47%	13.31%	15.62%	9.71%	15.10%	14.81%
<i>Academic Preparation</i>								
Mean GPA	3.80	3.80	3.62***	3.55	3.71	3.72	3.82	3.78
SAT Score	1374***	1415	1213	1225	1273***	1334	1338***	1400
AP Exams Passed	2.97***	3.66	1.48	1.37	2.14***	2.46	2.45	2.74
N	473	360	556	263	461	309	404	351

Notes: * p<.05 **p<.01 ***p<.001 indicates significant difference between same race males and females

Table 4a NLSF High School Preparation by Race/Ethnicity and Class Part 1

	<i>Asian Working</i>	<i>Asian Middle</i>	<i>Asian Affluent</i>	<i>Black Working</i>	<i>Black Middle</i>	<i>Black Affluent</i>	<i>Significance</i>
<i>High School Type</i>							
Public	83.21%	80.19%	72.11%	78.17%	68.80%	62.79%	***b,c,d,f
Religious	10.95%	9.43%	9.50%	9.51%	18.38%	18.60%	***d,f
Private	5.84%	10.38%	18.18%	12.32%	12.82%	18.60%	***b,c,f
<i>Academic Preparation</i>							
Mean GPA	3.81	3.78	3.80	3.57	3.61	3.62	***f
SAT Score	1354	1378	1408	1191	1221	1239	***b,c,d,f
AP Exams Passed	2.40	2.89	3.68	1.10	1.37	1.82	***a,b,c,e,f
N	137	212	484	284	234	301	

Notes: ns= not significant, * p<.05 **p<.01 ***p<.001
a= significant difference between Asian working class and Asian middle class; b=significant difference between Asian middle class and Asian affluent; c= significant difference between Asian working class and Asian affluent; d= significant difference between black working class and black middle class; e=significant difference between black middle class and black affluent; f= significant difference between black working class and black affluent

Table 4b NLSF High School Preparation by Race/Ethnicity and Class (Continued)

	<i>Hispanic Working</i>	<i>Hispanic Middle</i>	<i>Hispanic Affluent</i>	<i>White Working</i>	<i>White Middle</i>	<i>White Affluent</i>	<i>Significance</i>
<i>High School Type</i>							
Public	70.71%	67.43%	61.34%	88.16%	79.90%	66.60%	***i,k,l
Religious	20.50%	22.02%	19.81%	7.89%	10.31%	14.23%	ns
Private	8.37%	10.55%	18.85%	3.95%	9.79%	18.76%	***h,i,k,l
<i>Academic Preparation</i>							
Mean GPA	3.72	3.70	3.72	3.76	3.80	3.81	ns
SAT Score	1253	1308	1323	1309	1354	1382	***g,i,j,k,l
AP Exams Passed	1.96	2.10	2.61	1.74	2.50	2.75	***h,i,j,l
N	239	218	313	76	194	485	

Notes: ns= not significant, * p<.05 **p<.01 ***p<.001
g= significant difference between Hispanic working class and Hispanic middle class; h=significant difference between Hispanic middle class and Hispanic affluent; i= significant difference between Hispanic working class and Hispanic affluent; j= significant difference between white working class and white middle class; k=significant difference between white middle class and white affluent; l= significant difference between white working class and white affluent

Table 5 NLSF Collegiate Major, Cumulative Grade Point Average, and Extracurricular Participation by Race/Ethnicity

	Asian	Black	Hispanic	White	Significance
<i>Major</i>					
Humanities	11.04%	13.31%	16.10%	17.35%	** a, c, d
Communication	2.28%	3.66%	4.55%	3.71%	ns
Social Science	12.73%	19.54%	17.40%	11.92%	*** b,c,d,e,f
Math & Science	12.61%	7.45%	8.83%	10.46%	** b,c,d
Business	13.69%	10.13%	9.22%	12.72%	* b, c, e
Engineering	11.64%	7.45%	8.44%	10.73%	* b, c, d
Other Major	5.28%	5.13%	2.47%	3.05%	*d,f
<i>Cumulative GPA</i>					
Grade Point Average	3.40	3.11	3.24	3.42	*** b,c,d,e,f
<i>Extracurricular</i>					
JV or V Sports	1.92%	4.15%	1.04%	3.97%	*** a,b,e,f
N	833	819	770	755	

Notes: ns= not significant, * p<.05 **p<.01 ***p<.001

a = significant difference between Asians and whites; b = significant difference between Asians and blacks; c = significant difference between Asians and Hispanics; d = significant difference between whites and blacks; e = significant difference between whites and Hispanics; f = significant difference between blacks and Hispanics

Table 6 NLSF Collegiate Major, Cumulative Grade Point Average, and Extracurricular Participation by Race/Ethnicity and Sex

	<i>Asian Female</i>	<i>Asian Male</i>	<i>Black Female</i>	<i>Black Male</i>	<i>Hispanic Female</i>	<i>Hispanic Male</i>	<i>White Female</i>	<i>White Male</i>
<i>Major</i>								
Humanities	14.80%***	6.11%	15.29%***	9.13%	17.79%	13.59%	21.29%***	12.82%
Communication	3.59%	0.56%	3.60%	3.80%	4.99%	3.88%	3.71%	3.70%
Social Science	14.59%	10.28%	22.12%***	14.07%	19.52%***	14.24%	10.64%	13.39%
Math & Science	10.78%**	15.00%	8.27%	5.70%	8.24%	9.71%	10.40%	10.54%
Business	13.53%	13.89%	8.81%	12.93%	6.51%***	13.27%	10.40%***	15.38%
Engineering	7.61%***	16.94%	7.01%	8.37%	5.21%***	13.27%	7.92%***	13.96%
Other Major	6.34%	3.89%	5.58%	4.18%	3.47%	0.97%	4.95%***	0.85%
<i>Cumulative GPA</i>								
Grade Point Average	3.41	3.38	3.14***	3.02	3.26	3.22	3.45***	3.39
<i>Extracurricular</i>								
JV or V Sports	1.69%	2.22%	1.26%***	10.27%	0.87%	1.29%	3.47%	4.56%
N	473	360	556	263	461	309	404	351

Notes: * p<.05 **p<.01 ***p<.001 indicates significant difference between same race males and females

Table 7a NLSF Collegiate Major, Cumulative Grade Point Average, and Extracurricular Participation by Race/Ethnicity and Class Part 1

	<i>Asian Working</i>	<i>Asian Middle</i>	<i>Asian Affluent</i>	<i>Black Working</i>	<i>Black Middle</i>	<i>Black Affluent</i>	<i>Significance</i>
<i>Major</i>							
Humanities	11.68%	10.85%	10.95%	13.38%	9.83%	15.95%	***e
Communication	2.19%	3.30%	1.86%	3.52%	4.27%	3.32%	ns
Social Science	13.14%	11.32%	13.22%	20.07%	20.09%	18.60%	ns
Math & Science	13.14%	12.74%	12.40%	10.56%	5.98%	5.65%	***f
Business	7.30%	14.15%	15.29%	6.69%	12.82%	11.30%	**a,c,d
Engineering	10.22%	12.26%	11.78%	4.58%	8.55%	9.30%	ns
Other Major	6.57%	6.60%	4.34%	7.04%	4.70%	3.65%	*f
<i>Cumulative GPA</i>							
Grade Point Average	3.31	3.38	3.43	3.04	3.09	3.18	***c,e,f
<i>Extracurricular</i>							
JV or V Sports	1.46%	2.83%	1.65%	2.11%	5.98%	4.65%	***d
N	137	212	484	284	234	301	

Notes: ns= not significant, * p<.05 **p<.01 ***p<.001

a= significant difference between Asian working class and Asian middle class; b=significant difference between Asian middle class and Asian affluent; c= significant difference between Asian working class and Asian affluent; d= significant difference between black working class and black middle class; e=significant difference between black middle class and black affluent; f= significant difference between black working class and black affluent

Table 7b NLSF Collegiate Major, Cumulative Grade Point Average, and Extracurricular Participation by Race/Ethnicity and Class (Continued)

	<i>Hispanic Working</i>	<i>Hispanic Middle</i>	<i>Hispanic Affluent</i>	<i>White Working</i>	<i>White Middle</i>	<i>White Affluent</i>	<i>Significance</i>
<i>Major</i>							
Humanities	13.81%	13.76%	19.49%	9.21%	14.95%	19.59%	***i
Communication	2.51%	5.96%	5.11%	5.26%	3.61%	3.51%	ns
Social Science	21.76%	14.68%	15.97%	9.21%	10.82%	12.78%	***g
Math & Science	9.21%	8.26%	8.95%	18.42%	10.82%	9.07%	**i
Business	9.21%	13.30%	6.39%	13.16%	12.89%	12.58%	**h
Engineering	8.79%	10.55%	6.71%	13.16%	10.82%	10.31%	ns
Other Major	2.93%	1.38%	2.88%	5.26%	4.12%	2.27%	ns
<i>Cumulative GPA</i>							
Grade Point Average	3.14	3.24	3.33	3.24	3.38	3.47	***g,h,i,j,k,l
<i>Extracurricular</i>							
JV or V Sports	0.42%	0.92%	1.60%	2.63%	3.61%	4.33%	ns
N	239	218	313	76	194	485	

Notes: ns= not significant, * p<.05 **p<.01 ***p<.001

g= significant difference between Hispanic working class and Hispanic middle class; h=significant difference between Hispanic middle class and Hispanic affluent; i= significant difference between Hispanic working class and Hispanic affluent; j= significant difference between white working class and white middle class; k= significant difference between white working class and white affluent

Table 8 NLSF Linear Regression Predicting College Cumulative Grade Point Average by Race/Ethnicity: Model 1

	Asian	Black	Hispanic	White
<i>Gender</i>				
Female	-	-	-	-
Male	-0.03	-0.12***	-0.04	-0.06*
N	833	819	770	755
R ²	0.00	0.02	0.00	0.01

* p<.05 **p<.01 ***p<.001

Table 9 NLSF Linear Regression Predicting College Cumulative Grade Point Average by Race/Ethnicity: Model 2

	Asian	Black	Hispanic	White
<i>Gender</i>				
Female	-	-	-	-
Male	-0.03	-0.12***	-0.05	-0.07**
<i>Class/Socioeconomic Status Indicators</i>				
Working Class	-	-	-	-
Middle Class	0.07	0.06	0.10**	0.15**
Affluent	0.12***	0.14***	0.19***	0.24***
N	833	819	770	755
R ²	0.02	0.05	0.05	0.05

* p<.05 **p<.01 ***p<.001

Table 10 NLSF Linear Regression Predicting College Cumulative Grade Point Average by Race/Ethnicity and Sex: Model 1

	<i>Asian Female</i>	<i>Asian Male</i>	<i>Black Female</i>	<i>Black Male</i>	<i>Hispanic Female</i>	<i>Hispanic Male</i>	<i>White Female</i>	<i>White Male</i>
<i>Class/Socioeconomic Status Indicators</i>								
Working Class	-	-	-	-	-	-	-	-
Middle Class	0.07	0.06	0.12**	-0.08	0.10*	0.10	0.20***	0.09
Affluent	0.10*	0.15**	0.17***	0.07	0.22***	0.16**	0.22***	0.26***
N	473	360	556	263	461	309	404	351
R ²	0.01	0.03	0.04	0.02	0.07	0.03	0.05	0.07

* p<.05 **p<.01 ***p<.001

Table 11 NLSF Linear Regression Predicting College Cumulative Grade Point Average by Race/Ethnicity

	Asian	Black	Hispanic	White
<i>Gender</i>				
Female	-	-	-	-
Male	-0.05*	-0.09***	-0.08**	-0.06*
<i>Class/Socioeconomic Status Indicators</i>				
Working Class	-	-	-	-
Middle Class	0.05	0.01	0.03	0.11*
Affluent	0.05	0.05	0.05	0.17***
Parental Income	0.01	0.01	0.01	-0.00
Parents in Managerial/Professional Occupations	0.00	0.01	0.05*	-0.02
Parents Own Home Since 6, Ever been on Public Assistance	-0.04	0.03	0.01	-0.06
Percent Black and Hispanic in Neighborhood and School	-0.11*	0.00	-0.05	0.02
Both Parents in Household	-0.00	-0.00*	-0.00	-0.00
Household Size	-0.02	0.01	-0.07*	0.02
Number of Children in Household	0.01	-0.00	0.01	0.00
<i>Immigrant Origins</i>	-0.02	-0.01	-0.01	0.01
Native Born with Native Born Parents	-	-	-	n/a
First Generation	0.07	0.04	0.02	n/a
Second Generation	0.08	0.02	-0.00	n/a
<i>Racial Background</i>				
White Hispanic	n/a	n/a	-	n/a
Black Hispanic	n/a	n/a	0.04	n/a
Multiracial Hispanic	n/a	n/a	-0.02	n/a
<i>High School Preparation</i>				
Public High School	-	-	-	-
Religious High School	-0.01	0.05	0.02	-0.01
Private High School	0.05	0.07*	0.08*	0.09**
High School Grade Point Average	0.50***	0.35***	0.31***	0.42***
SAT Combined Score	0.03*	0.03***	0.07***	0.05***
Total Number of AP Exams Passed	0.02***	0.04***	0.02**	0.02**
<i>College Major</i>				
Major Missing	-0.08*	-0.11**	-0.06	-0.11**
Humanities	0.04	0.03	0.08	-
Communication	n/a	-0.07	0.13	-0.06
Social Science	0.03	-	-	-0.07
Math & Science	-0.05	-0.09	0.01	-0.06

Business	-	-0.09	0.03	-0.11**
Engineering	-0.06	-0.20***	-0.07	-0.20***
Other Major	-0.02	0.02	0.10	0.00
<i>College Experiences</i>				
Transferred	0.10	0.02	0.04	0.11*
Missed a Survey Wave	-0.03	0.02	-0.01	-0.04
JV or Varsity Sports	-0.05	0.01	-0.04	-0.19**
<i>College Characteristics</i>				
Attended one of 10 Most Selective Institutions	-0.04	-0.04	-0.11**	-0.01
Percent of Student's Racial-Ethnic Group	-0.00	0.00***	0.01	0.00
Small College	-	-	-	-
Medium College	0.01	0.05	0.02	0.01
Large College	-0.05	-0.05	-0.09*	0.03
Urban Location	-	-	-	-
Rural Location	0.04	0.11*	0.07	-0.01
Suburban Location	-0.03	-0.05	0.02	-0.05
<i>School Funding Sources</i>				
Student Earnings' Percent of College Cost	-0.57	0.43	-0.30	0.12
Scholarships' Percent of College Cost	0.19	0.13	0.07	0.15
Parents Contributions' Percent of College Cost	-0.01	0.00	-0.01	0.05
Hours worked Monday thru Friday	-0.01*	-0.00	-0.01	-0.00
N	833	819	770	755
R ²	0.30	0.32	0.27	0.27

* p<.05 **p<.01 ***p<.001

Table 12 NLSF Linear Regression Predicting College Cumulative Grade Point Average by Race/Ethnicity and Sex

	<i>Asian Fem.</i>	<i>Asian Male</i>	<i>Black Female</i>	<i>Black Male</i>	<i>Hisp. Female</i>	<i>Hisp. Male</i>	<i>White Female</i>	<i>White Male</i>
<i>SES Indicators</i>								
Working Class	-	-	-	-	-	-	-	-
Middle Class	0.02	0.05	0.04	-0.06	0.01	0.05	0.19***	0.01
Affluent	0.01	0.08	0.05	0.07	0.08	0.02	0.16**	0.17*
Parental Income	0.03	-0.05	-0.00	0.02	0.03	-0.01	0.00	-0.02
2 Prof. Parents	-0.03	0.04	0.02	-0.01	0.06*	0.04	-0.01	-0.02
Parents Own Home	-0.05	-0.03	0.06	-0.05	0.04	-0.02	-0.05	-0.07
Welfare	-0.11	-0.14*	-0.01	0.02	-0.05	-0.03	0.04	-0.02
% Minority	-0.00	0.00	-	0.00	-0.00	-0.00	-0.00	-0.00
			0.00***					
2 Parents in HH	0.01	-0.08	-0.01	0.04	-0.09*	-0.01	0.02	0.02
Household Size	0.00	0.03	0.01	-0.02	0.00	0.01	-0.01	0.01
# Kids in HH	-0.00	-0.05	-0.03	0.04	0.01	-0.02	0.01	-0.01
<i>Immigrant Origins</i>								
Native	-	-	-	-	-	-	n/a	n/a
1 st Generation	0.04	0.09	0.08	-0.06	0.04	-0.01	n/a	n/a
2 nd Generation	0.06	0.11	0.01	0.01	0.01	-0.00	n/a	n/a
<i>Racial Background</i>								
White	n/a	n/a	n/a	n/a	-	-	n/a	n/a
Hispanic	n/a	n/a	n/a	n/a	0.05	0.05	n/a	n/a
Black	n/a	n/a	n/a	n/a	0.05	0.05	n/a	n/a
Hispanic	n/a	n/a	n/a	n/a	-0.04	-0.01	n/a	n/a
Multiracial	n/a	n/a	n/a	n/a	-0.04	-0.01	n/a	n/a
<i>High School Preparation</i>								
Public High School	-	-	-	-	-	-	-	-
Religious	-0.03	0.04	0.05	0.04	0.00	0.04	-0.04	0.00
HS								
Private HS	0.03	0.07	0.09*	-0.01	0.06	0.12	0.05	0.13*
HS GPA	0.42**	0.59**	0.29***	0.39***	0.28***	0.34***	0.46***	0.41**
	*	*						*
SAT Score	0.04**	0.03	0.05***	0.01	0.08***	0.03	0.03	0.06**
# of AP Exams Passed	0.02*	0.03**	0.03***	0.05***	0.02*	0.02	0.02**	0.01
<i>College Academics</i>								

Major Missing Humanities	-0.06	-0.09	-0.11**	-0.13	-0.13**	0.03	-0.12*	-0.09
Commun.	0.06	0.01	0.00	0.06	-0.01	0.24**	-	-
Social Science	n/a	n/a	-0.06	-0.09	0.06	0.24	-0.15	0.02
Math & Science	0.07	-0.01	-	-	-	-	-0.08	-0.03
Business Engineering	-0.05	-0.06	-0.12*	0.09	-0.05	0.15	-0.09	-0.01
Other Major College Experiences	-	-	-0.11*	-0.05	0.02	0.10	-0.08	-0.12
Transferred	-0.10	-0.04	-	0.01	-0.12	0.00	-0.19**	-
Missed	-0.04	-0.00	0.28***	-	-	-	-	0.20**
Wave	-0.04	-0.00	0.06	-0.04	0.08	-0.03	-0.01	0.05
Sports College Character.	0.21	0.04	0.04	0.01	0.04	0.01	0.11	0.06
10 Most Selective	-0.04	-0.05	-0.02	0.11	0.02	-0.06	-0.00	-0.08
% Student's Racial-Ethnic Group	-0.05	-0.07	0.13	0.07	0.12	-0.13	-0.20*	-0.20*
Small College	-0.06	-0.00	-0.04	-0.02	-0.09	-0.16*	0.03	-0.06
Medium College	-0.00	-0.00	0.00***	0.01**	0.01	-0.00	0.00	-0.00
Large College	-	-	-	-	-	-	-	-
Urban Location	0.04	0.01	0.06	0.03	-0.01	0.04	0.00	0.01
Rural Location	-0.07	0.01	-0.01	-0.13	-0.09	-0.14	0.05	-0.00
Suburban Location	-	-	-	-	-	-	-	-
School Funding	0.05	0.02	0.09	0.18	0.08	0.05	-0.09	0.08
Student	-0.03	-0.04	-0.06	-0.07	0.02	0.03	-0.10*	-0.00
Scholarships	-0.51	-0.86	0.39	0.69	-0.33	-0.07	0.01	0.25
Parents	0.10	0.31	0.31**	-0.02	0.01	0.15	0.19	0.15
Hours worked	-0.05	0.12	-0.01	0.11	-0.09	0.09	0.09	0.00
	-	0.00	-0.00	0.01	-0.01	-0.00	-0.00	-0.00
	0.01**							
	*							
N	473	360	556	263	461	309	404	351
R ²	0.29	0.38	0.35	0.37	0.33	0.26	0.28	0.32

*p<.05 **p<.01 ***p<.001

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