# WHERE ARE ALL THE BOYS?

# Examining the Black-White Gender Gap in Postsecondary Attainment<sup>1</sup>

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#### **Abstract**

We explore the gender gap in college completion among Blacks and Whites. Using the National Education Longitudinal Study of 1988, we examine how early school achievement and educational expectations affect attainment by following a nationally representative sample of youths from 1988 (approximately age fourteen) to 2000 (approximately age twenty-six). The odds of attaining an associate's or a bachelor's degree among Black women are greater than the odds among White men after controlling for family socioeconomic status. However, the difference between Black men and White men is additionally dependent on differences in middle school and high school achievement and in high school sequencing.

Keywords: Race, Gender, Higher Education, Degree Attainment, Achievement

#### INTRODUCTION

The race-gender gap in higher education has received extensive media attention in recent years. On March 3, 2003, *Newsweek* ran a cover story, "The Black Gender Gap," which argued that Black women are outstripping Black men educationally. Though the article presented statistics about the percentage of young Black men and women attending college, 25% and 35%, respectively, it does not explain the causes of this disparity in rates of college attendance, opting instead to focus on the consequences for the marriage market of Black women.

Although the gender gap in college enrollment and degree attainment is evident among all racial-ethnic groups, the gender gap is most pronounced among racially stigmatized groups (Lopez 2003). More specifically, Cathy Cohen and Claire Nee (2000) have argued that the gender differential is most extreme among Black stu-

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dents.<sup>2</sup> In addition to this, the gender gap in postsecondary enrollment and degree attainment became evident in Black communities before it became visible in other racial-ethnic communities. In fact, when discussing the implications of trends in bachelor's degrees awarded in 1975/76 and 1980/81, William Trent (1991) warned of an impending "feminization of education" among Blacks.

The Census Bureau began regularly tracking bachelor's degree recipients by race and gender in 1976/77. At that time, Black women earned approximately 57% of all bachelor's degrees conferred to Blacks (Cross 1999). In contrast, during the same period, White women earned 46% of all bachelor's degrees conferred to Whites (authors' calculation from the *Digest of Education Statistics 2005*, Snyder et al., 2006).<sup>3</sup> The corresponding figure for Hispanic and Asian women is approximately 45%. The enrollment rates during this period follow the same general pattern. Black women composed approximately 54% of Black undergraduates enrolled in degree-granting institutions in the United States in 1976. This is compared to 48% for White women, and 46% for Hispanic and Asian women (authors' calculations from *Digest of Education Statistics 2002*, Snyder 2002).<sup>4</sup>

By 1999/2000, Black women composed approximately 63% of all Black students attending college. In contrast, White women composed 56% of all White students enrolled in institutions of higher education (Snyder 2002).<sup>5</sup> The corresponding percentages for Hispanic and Asian women were 57% and 52%, respectively. More dramatically, Gniesha Dinwiddie and Walter Allen (2003) found that Black women enrolled in colleges and universities at roughly twice the rate of Black men. Douglas Massey et al. (2003) and Michael Nettles and Laura Perna (1997) also documented this pattern at selective colleges and universities.

In this paper, we examine how the gender gap in degree attainment occurs among Black males and females compared to White males and females. To do this, we examine the process of stratification from eighth grade to the completion of college. Using the National Education Longitudinal Study of 1988 (NELS), we analyze how early school experiences lead to divergent college completion patterns. While we are most interested in the gender gap among Black students, we compare Black students to White students in order to understand if and how the gender gap among Blacks differs from the gender gap among Whites.

Our paper begins by summarizing trends in degree attainment and reviewing research that addresses racial and ethnic differences in the educational outcomes of students, focusing primarily on the postsecondary experiences of Black students. Then we review studies that highlight the experiences of women in institutions of higher education. It is noteworthy that few studies have explored the intersection of race and gender among students in the context of higher education. This is highly problematic given that prior research (Trent 1984) has shown that failing to disaggregate degree recipients by race and sex can lead to erroneous interpretations of trends in degree attainment. Our paper contributes to the literature by examining degree attainment at the intersection of race and gender.

Next, we introduce our theoretical framework, describe our data, and review descriptive analyses of school performance, educational aspirations, and teachers' expectations early in the youths' educational careers. We then present logistic regression models that examine how grade point averages in eighth, tenth, and twelfth grades, and students' expectations (as well as teachers' expectations of students in tenth grade) affect the odds of attaining at least an associate's degree or a bachelor's degree by December 2000. Students who graduated from high school on time would have received their diploma eight and a half years prior (in 1992). This is very crucial, as Clifford Adelman (1998) has argued that when measuring degree attainment,

researchers should analyze receipt more than five or six years after college enrollment. Lastly, we discuss the implications of our findings.

#### LITERATURE REVIEW

# **Degree Attainment**

Using the Integrated Postsecondary Education Data System (IPEDS), Nettles and Perna (1997) document that nationally, the percentage of students receiving associate's degrees increased by about 34% from 1976/77 to 1993/94. Similarly, the percentage of African Americans who received associate's degrees grew 37% between 1976 and 1994. However, these changes do not reflect the gender imbalance in degree attainment. While the percentage of associate's degrees awarded to African American women increased by approximately 60%, there was only an 11% increase for African American men (Nettles and Perna, 1997).

The percentage of associate's degrees awarded in the United States has increased by approximately 1% each year between 1991 and 1996. The percentage awarded to minorities has grown by approximately 7% each year during the same time period (Chenoweth 1998). More specifically, Karin Chenoweth (1998) illustrated that rates of associate's degree attainment increased 6% each year for African Americans, 7% for Native Americans, 8% for Hispanics, and 10% for Asian Americans. In contrast, the percentage of Whites earning associate's degrees increased by less than 1% each year, and the percentage earning bachelor's degrees declined by approximately 1% each year (Chenoweth 1998).

Bachelor's degree completion rates have also increased in recent years, with females' rates showing the most growth (Trusty and Niles, 2004). Nationwide, the percentage of students receiving bachelor's degrees in the United States in 1993/94 increased by 27% from 1976/77. The percentage of bachelor's degrees awarded to Black students increased by 40%. However, the percentage of bachelor's degrees awarded to Black men only increased by 20%, while the percentage awarded to Black women increased by 55% (Nettles and Perna, 1997).

Jerry Trusty and Spencer Niles (2004) examined the factors that lead to the successful completion of a bachelor's degree, which they defined as *realized potential*. Failing to earn a bachelor's degree was defined as *lost talent*. Their sample was composed of students from NELS who fit two criteria: (1) the students scored above the mean on reading and math cognitive-ability tests, and (2) the students expected to attain a bachelor's degree or more education. Among the students in the sample, 64% had completed a bachelor's degree by 2000 (Trusty and Niles 2004). Trusty and Niles (2004) concluded that even after controlling for variables related to degree attainment—such as race/ethnicity, socioeconomic status, high school behaviors, and parental behaviors—female students continued to be more likely than male students to realize their potential. They also found that Asian Americans were more likely than Latinos, Blacks, and Whites to earn a bachelor's degree.

Trusty and Niles (2004) discovered that background variables explain 11% of the variability in bachelor's degree attainment. High school variables explain an additional 22%. They document that a one standard deviation in socioeconomic status results in a 64% increase in the likelihood of earning a bachelor's degree in 2000, concluding: "Our results support the contention that the paths toward realized potential or lost talent diverge early in students' educational careers" (Trusty and Niles, 2004, p. 12). They also concluded that the effects of high school variables in their study were stronger for their sample of students who evidenced above-average

ability early in their educational careers than for the general sample of "college-attending degree-seeking" participants in Trusty's (2004) study.

# Black Students' Access to Higher Education and Degree Attainment

Some researchers have focused on the changes in access to higher education and degree completion among Blacks and Whites over the past several decades. According to Robert Hauser and Douglas Anderson (1991), Black students' college enrollment declined from 1977 to the mid-1980s while White students' college enrollment grew rapidly. The authors investigated whether a change in Black and/or White students' aspirations might explain this decline, but they did not find differences in aspirations between Black seniors and White seniors or between Black women and Black men.

In their review of the research on racial and ethnic stratification of educational attainment, Grace Kao and Jennifer Thompson (2003) asserted that Black students are less likely than White students to make the immediate transition from high school to college. Laura Walter Perna and Marvin Titus (2005) also found that Blacks are less likely than Whites to enroll in a four-year or a two-year college in the fall immediately following high school graduation. They concluded that Blacks' lower enrollment is due to their lower levels of human, economic, and cultural capital and the reduced prevalence of social networks that provide resources to promote enrollment in their high schools. In an earlier paper, Perna (2000) concluded that after controlling for factors related to college enrollment, such as gender, costs, benefits, financial resources, and academic ability, Black students were *more* likely than White students to enroll in a four-year institution immediately after graduating from high school.

In *The Shape of the River* (1998), William Bowen and Derek Bok argued that Black students perform below the levels predicted by their SAT scores, and the degree of underperformance increases as SAT scores rise. Extant research has also highlighted the effects of Black students' lower grades on persistence. In their study of undergraduates enrolled in four-year public postsecondary institutions in Indiana, Shouping Hu and Edward St. John (2001) concluded that the persistence rate for Black students declined modestly in the early 1990s. They argued that differences in undergraduate grades help to explain differences in persistence rates between Black, Hispanic, and White students. Other researchers have suggested that students' class backgrounds interact with race to influence persistence. Michael Paulsen and Edward St. John (2002) argued that poor and working-class Black students (but not middle-and upper-class Black students) were more likely to persist in college than their White counterparts.

In their review of the research on educational achievement and attainment, Kao and Thompson (2003) reported that Black students take longer to complete college than White students. Similarly, Nettles and Perna (1997) have argued that less than 20% of Black men and less than 33% of Black women complete their bachelor's degree in four years. The authors also concluded that Blacks are less likely than Whites to receive their degrees from prestigious research institutions. Kao and Thompson (2003) found that racial and ethnic minorities are also more likely than Whites to attend community colleges. In addition to this, Black students are more likely to drop out of college (Nettles and Perna, 1997). In their study of freshmen enrolled at the University of Minnesota in 1991, Stephen DesJardins et al. (2002) argued that students who took time off from college were more likely to be male or from underrepresented minority groups. This is problematic given that the authors

noted that only a very small percentage of students that discontinued their enrollment more than once eventually graduated from college.

There are many possible explanations for the racial gap in attainment as described above. Christopher Jencks and Meredith Phillips (1998) found that when they use the High School and Beyond data set to analyze the graduation rates of Blacks and Whites who have the same twelfth-grade test scores, Blacks are more likely than Whites to complete college. Blacks' relative advantage is even greater when they compare Blacks and Whites with the same socioeconomic status. This indicates that at least some of the disadvantage that Blacks face in baccalaureate attainment is due to lower grades and parents' inability to pay for college.6 This conclusion is supported by researchers who have demonstrated that larger percentages of Black students (as compared to Whites) come from lower-class or middle-class backgrounds (Hu and St. John, 2001; St. John et al., 2005). Blacks are also more likely than Whites to be financially independent and to have mothers with less than a bachelor's degree (St. John et al., 2005). Additionally, Hu and St. John (2001) discovered that Black students were more likely than White students to earn grades of C or below. Despite their lower grade point averages, Black students continue to have high educational aspirations. Zhenchao Qian and Sampson Lee Blair (1999) illustrated that educational performance has less effect on the educational aspirations of Black students than it has on White, Hispanic, or Asian students.

# Female Students' Access to Higher Education and Degree Attainment

Andrew Hacker (2003) argued that, in general, females earn higher grades than males, outnumber males in advanced placement classes, and are more likely than males to attend college. There is some evidence that these differences may be due, in part, to stereotype threat. Douglas Massey and Mary Fischer (2005) have asserted that males are more likely to internalize negative stereotypes than females. They have also argued that this internalization causes male students to disidentify with school which leads them to study less. Males are also more likely to experience performance burden which increases text anxiety and lowers academic achievement (Massey and Fischer, 2005). Hacker (2003) has not interrogated the interaction between race-gender differences, but he has investigated the role of class. His results suggested that as family income decreases, the relative share of female students who take the SAT increases. He suggested that one reason for this trend may be the overrepresentation of female-headed households at lower income levels. (Hacker posits that females may have less influence over their sons.) This finding is especially relevant to Black students because they disproportionately come from families with the aforementioned demographic characteristics. In addition to this, Roslyn Arlin Mickelson (1990) concluded that being female is much more important in determining the academic achievement of Black students than White students.

David Karen (1991) found that although more women than men have graduated from high school since 1870, women's enrollments in higher education did not surpass men's until 1979.<sup>7</sup> He argued that women's participation in higher education follows a different pattern from that of other subordinate groups because they grow up in the same households and share the same social backgrounds as men. Nevertheless, we argue that men and women may experience being from the same social background in different ways. Previous research has supported this claim. For example, Claudia Buchmann and Thomas DiPrete (2006) concluded that the effect of fathers' education on college completion was more important for girls than boys prior to the 1950s, but that currently fathers' education is more important for boys.

Other researchers have also highlighted the superior educational outcomes of female students. Cohen and Nee (2000) illustrated that Black enrollment in higher education is at an all-time high. However, when they examined the educational trends of Black students more closely, they found increasing postsecondary attainment for females "in the midst of declining, stagnating, and at best minimal increases in the educational achievement of their male counterparts" (Cohen and Nee, 2000, p. 1176).8 St. John et al. (2005) also noted that compared to White students, a larger share of Black students are female. This is in spite of the fact that Black women rely on financial aid more than their male counterparts because they are more likely to be financially independent from their families and responsible for dependents (Cohen and Nee, 2000). Black women are also more likely to come from families where their parents had secured at most a high school diploma. Finally, Nettles and Perna (1997) have argued that approximately twice as many Black women (as compared to Black men) receive bachelor's degrees and master's degrees annually, even though Black women have lower SAT scores and are more likely to be first-generation college students than Black men. Cohen and Nee (2000) reviewed research that has tried to explain the gender gap in Black enrollment, but they do not find satisfactory explanations.

Although it is beyond the scope of this paper, it is worth noting that extant research has highlighted how neighborhood characteristics may differentially affect the educational outcomes of males and females. The results are mixed. Doris Entwisle et al. (1994) concluded that neighborhood resources have a greater impact on boys' math scores than on girls'. Similarly, Jonathan Crane (1991) found that having more residents in a neighborhood who worked in professional or managerial occupations decreased the likelihood that Black males would drop out of school, but he did not observe the same effect among Black females. However, in their investigation of the effects of neighborhood minority concentration, violence, and disorder on academic achievement among minority students at selective colleges and universities, Nicholas Ehrmann and Douglas Massey (2008) have discovered that while males are more likely to be exposed to neighborhood violence and disorder, the effects of exposure are more prevalent among female students.

#### THEORETICAL FRAMEWORK

The blocked-opportunities framework (Hanson 1994; Kao and Tienda, 1998; Mickelson 1990) posits that a significant number of youths are talented and motivated but do not achieve because of structural barriers and their placement in the stratification system. Similarly, Walter Allen and Daniel Solorzano (2001) have argued that one of the biggest barriers to the success of Black college students is the cumulative disadvantage they face from institutional racism and blocked opportunities while concurrently being expected to achieve within educational institutions that do not address this legacy of racial stratification. Other scholars have asserted that schools actually reinforce larger societal patterns of inequality. For example, Sandra Hanson (1994) has argued 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.

In their seminal work, *Schooling in Capitalist America*, Samuel Bowles and Herbert Gintis (1976) argued that schools reinforce patterns of race, class, and gender inequality created by capitalism. In this paper, we examine teachers' educational expectations for students as one example of how schools and school personnel can

affect students' educational expectations and subsequent degree attainment. Scholars have criticized 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). In this paper, we argue that gender may be one factor that may affect the degree attainment of students from the same social-class background.

Previous research has documented the importance of teachers' expectations and evaluations of students. For example, Ronald Ehrenberg et al. (1995) found that Black, Hispanic, and White female students were rated more highly than their male counterparts in each subject area. In their analysis of teacher-student bonding, Robert Crosnoe et al. (2004) asserted that students who had more positive relationships with their teachers did better in school and had fewer disciplinary problems. Because the authors observed that boys and children of color had lower levels of teacher-student bonding, they concluded that minority boys may be the most at risk of alienation in school. Ann Arnett Ferguson (2001) and Nancy Lopez (2003) also reported that boys were punished much more often than were girls, and they were punished more severely than girls for breaking the same rules. These results lead us to conclude that teachers may be less likely to think that boys will attend college and that this negative evaluation may have an effect on boys' lower likelihood of degree attainment.

Other researchers have focused on how family socioeconomic status has influenced students' degree attainment. Scholars working in the status attainment tradition have attempted to model how socioeconomic status is passed on to future generations within families. In *The American Occupational Structure*, Peter Blau and Otis Dudley Duncan (1967) used father's educational and occupational attainment to predict the occupational prestige of the son's job. They found that the higher the father's educational and occupational status, the higher the son's socioeconomic status. William Sewell and Vimal Shah (1968) extended the work of Blau and Duncan (1967) by introducing psychological (mental ability) and social psychological (occupational and educational aspirations and significant other influences) variables to the model. Here we examine teachers' educational expectations for students as one type of significant other influence.

It is important to differentiate *aspirations* from *expectations* and *attitudes* (Mickelson 1990). One should not take for granted that these views on education complement each other. According to Hauser and Anderson (1991), "Aspirations are desired outcomes that are not limited by constraints on resources" (p. 270). In contrast, *expectations* are more realistic assessments of what is likely to happen in the future. Finally, *attitudes* are universal beliefs students have about the value of education. In this paper, we focus on students' educational expectations because we want to analyze how students' beliefs in their own ability combined with an analysis of their life circumstances affect their degree attainment. We now discuss the data and methods employed in this paper.

#### DATA AND METHODS

In this paper, we use NELS data from 1988 to 2000 to examine patterns of postsecondary attainment among Black males and females and White males and females. NELS is a nationally representative sample of students in 1000 schools who were eighth graders in 1988. In the base year, 24,599 eighth graders were surveyed. A portion of these respondents was then resurveyed in 1990, 1992, 1994, and 2000. In

this paper, we utilize information from the base year (1988) to the fourth follow-up (2000) to examine the determinants of Black students' and White students' likelihood of attaining an associate's or a bachelor's degree.

NELS is an ideal data source for this project for a number of reasons. First, the longitudinal design allows researchers to examine the educational experiences of Black males and females and White males and females from eighth grade to well beyond high school graduation. Secondly, NELS collected information from students, parents, teachers, and administrators. This allows an investigator to cross-reference data, which increases the reliability of self-reports. The survey design also enables researchers to match students and teachers. We also do not have to rely on retrospective responses regarding past events.

It is important to note that because teachers are tied to the sample of students, NELS does not provide a nationally representative sample of teachers. However it does provide teacher evaluations for a nationally representative sample of students. Finally, NELS is an ideal data source because a large number of Black students—the population of interest in this study—were sampled. In this paper, we utilize information from 974 Black students and 7632 White students who entered the study in eighth grade and remained in the study until the fourth follow-up survey in 2000. We also examine contextual data from the parent files in 1988 and teacher files in 1990. The next section provides detailed descriptions of the variables of interest in this paper.

#### Variables of Interest

In Table 1, we present information on the student, parent, and teacher variables of interest for this paper. We begin with variables that measure students' demographic characteristics. First, we constructed four categories that combine race and gender. Black male is a dummy variable where 1 equals *Black male*, and 0 equals *Other. Black female*, *White male*, and *White female* are coded in the same way. Next, we examine three measures of postsecondary attainment. The first measure codes degree attainment in five categories, ranging from 0 (no degree), 1 (certificate or license), 2 (associate's degree), 3 (bachelor's degree), 4 (master's degree), to 5 (doctorate or professional degree). We also constructed two dummy variables that measure whether the respondent received an associate's degree or more or a bachelor's degree or more by 2000.<sup>13</sup>

We use two dependent variables for the logistic regression models. These are (1) whether or not a student received an associate's degree or more and (2) whether the student attained a bachelor's degree or more by 2000. In 2000, students who graduated on time would have been out of high school for approximately eight years. If a student reported receiving no postsecondary education; some postsecondary education, but no degree; or a certificate or license, the student was coded as having less than an associate's degree. If a student reported receiving no postsecondary education; some postsecondary education, but no degree; a certificate or license; or an associate's degree, the student was coded as having less than a bachelor's degree.

Next, we analyzed a number of variables from the parent file to obtain reliable information on the family background of the student. The educational attainment of mothers and fathers ranges from 0 (*did not finish high school*) to 7 (*holds a graduate or professional degree*). Mothers' and fathers' occupation is grouped into large summary categories. For example, laborers include craftspeople, farmers, farm managers, laborers, operatives, and technical workers. Service occupations include clerical workers, sales associates, and service workers. Professionals include managers, accountants,

Table 1. Variable Descriptions

Label	Description			
Demographic Characteristics:				
Black male	1 = Black & male; 0 = Other			
Black female	1 = Black & female; 0 = Other			
White male	1 = White & male; $0 = $ Other			
White female	1 = White & female; $0 = $ Other			
Postsecondary Attainment:				
Degree attainment in 2000	0 = No degree; 1 = Certificate or license;			
	2 = Associate's; 3 = Bachelor's;			
	4 = Master's;			
	5 = PhD or professional			
Associate's degree in 2000	0 = Less than an associate's			
	1 = Associate's or more			
Bachelor's degree in 2000	0 = Less than a bachelor's			
	1 = Bachelor's or more			
Family Background:				
Socioeconomic status composite	-2.875 - 2.56			
Mother-and-father-raised respondent	0 = No; 1 = Yes			
Respondent's family size	2–10 or more			
Respondent's parents are married	0 = No; 1 = Yes			
Previous Achievement:				
Grade 6–8 composite	0.0-4.0			
Grade 10 composite	0.0–4.0			
Grade 12 composite	0.0–4.0			
High School Status:				
High school sequence	0 = Finished hs late or not at all			
	1 = Finished hs in 1992 or earlier			
Ever dropped out of high school	0 = Never; $1 = $ Dropped out at least once			
Students' Expectations:				
8th grade expect to graduate from college	0 = Does not expect to graduate from college			
10th grade expect to graduate from college	1 = Expects to graduate from college			
12th grade expect to graduate from college				
Teachers' Expectations:				
Teachers' 10th grade prediction that student	$0 = N_0$ ; $1 = Y_{es}$			
will probably attend college				
Students' Behavior:				
8th grade fought with another student	0 = No; $1 = Yes$			
8th grade sent to office for misbehaving	0 = No; $1 = Yes$			

artists, nurses, doctors, lawyers, and proprietors. Family income is reported in 1987 dollars. Following the definition used by Clifford Adelman (1999), we use the socioeconomic status composite variable instead of its component parts in our analyses. The variable was created by the National Center for Education Statistics and is composed of the aforementioned variables—parents' education, parents' occupations, and family income. It ranges from a minimum of -2.87 to a maximum of 2.56.

The next three family background variables come from students' eighth-grade survey. Two of these variables are dummy variables that measure whether the student lived with their mother and father and whether the student's parents were married. The last variable is a continuous variable which measures the number of people living in the student's household. The scale ranges from 2 to 10 or more household members.

The fourth group of variables examines students' previous academic achievement. Students' self-reported overall grade point averages from sixth to eighth grade, tenth grade, and twelfth grade are assessed using variables that are measured on a four-point scale. Higher values reflect higher grades. Grades in English, math, science, and social studies contribute to this overall grade point average.

The first variable in the high school status section measures timely completion of high school. Students receive a 1 if they finished high school on time (in 1992 or earlier). They receive a 0 if they finished high school late or not at all. The second variable details students' dropout status. Students receive a 1 if the respondent dropped out of high school at least once. In auxiliary analyses we examined the effect of whether a student received a GED or a high school diploma, but the variable did not provide additional explanatory power to the model.

The next section of explanatory variables includes measures of students' educational expectations and teachers' educational expectations for students. Students' postsecondary education plans in eighth, tenth, and twelfth grades are measured by a categorical variable where 1 equals *expects to graduate from college*, and 0 equals *does not expect to graduate from college*. In 1990, teachers were asked to predict whether or not each of their students would probably attend college, where 0 indicates a negative response, and 1 indicates an affirmative response.<sup>14</sup>

The final section of independent variables examines respondents' behavior in school. For the first variable, students receive a 1 if they have ever gotten into a fight with another student or a 0 if they have not. The second variable measures whether students have been sent to the office because they were misbehaving. Students receive a 1 if they have been sent to the office or a 0 otherwise.

In the next section, we present our results. First, we analyze descriptive statistics for the variables of interest for Black males and females and White males and females. Then, we use binary logistic regression to examine how demographic characteristics, high school status, previous academic achievement, family background characteristics, and postsecondary expectations affect students' postsecondary attainment in 2000.

## **RESULTS**

# **Descriptive Statistics**

Table 2 reports means and frequencies for the variables of interest in this paper. We also report the results of significance tests between same-race males and females. As we can see, approximately 35% of Black females reported receiving at least an associate's degree by 2000. The corresponding percentage for Black males was 25%. About 48% of White females received an associate's degree or higher by 2000. Approximately 43% of White males reported receiving at least a two-year degree. This indicates that females in each racial group were significantly more likely to receive an associate's degree or more education than men. However, the gap between males and females is larger among Black respondents.

As expected, a smaller percentage of Black students and White students reported receiving a bachelor's degree. The gender gaps are also slightly smaller within each racial group than they were when we examined associate's degree attainment. Our results indicate that approximately 28% of Black females and 19% of Black males received a bachelor's degree or more education by 2000. The corresponding percentages for White females and males were 40% and 36%, respectively. Once again, the gender gap appears to be wider among Black students than among White

**Table 2.** Means and Frequencies for Variables of Interest (N = 8606)

	Blacks		Whit	tes
	Males	Females	Males	Females
Postsecondary Attainment:				
Degree attainment in 2000	0.79***	1.14	1.33***	1.51
Associate's or more in 2000	25.18%**	34.73%	43.06%***	48.26%
Bachelor's or more in 2000	19.37%**	27.79%	36.14%***	40.18%
Family Background:				
Socioeconomic status in 1988	-0.39	-0.46	0.07***	0.00
Mother-and-father-raised respondent	49.76%*	42.24%	73.79%	71.84%
Respondent's family size	4.64	4.68	4.46**	4.54
Respondent's parents are married	57.40%	52.30%	84.41%	83.54%
Previous Achievement:				
Grade 6–8 composite	2.79***	3.00	3.04***	3.18
Grade 10 composite	2.75**	2.90	2.97***	3.08
Grade 12 composite	1.61***	1.90	2.19***	2.41
High School Status:				
High school sequence	75.72%	78.49%	86.32%*	87.93%
Ever dropped out of high school	20.91%	17.92%	12.12%	12.62%
Students' Expectations:				
8th grade expect to graduate from college	41.83%	36.74%	45.61%	45.58%
10th grade expect to graduate from college	30.77%	26.16%	35.29%*	32.69%
12th grade expect to graduate from college	29.33%	26.16%	31.61%	30.53%
Teachers' Expectations:				
Student will probably attend college	48.23%**	60.36%	67.21%***	71.31%
Students' Behavior:				
8th grade fought with another student	32.82%***	17.80%	29.83%***	7.50%
8th grade sent to office for misbehaving	48.85%***	30.04%	37.55%***	15.15%
N	416	558	3613	4019

Notes: Means and frequencies are calculated using nonmissing values. Means and frequencies with asterisks are significantly different from same-race females.

students. Black students' mean postsecondary attainment in 2000 varies between 0.8 and 1.1, which indicates they received a certificate or license. White students' mean postsecondary attainment is between 1.3 and 1.5. We see again that in each racial group, women have higher levels of postsecondary attainment than men. The gender gap remains larger among Blacks than Whites. We should also note that White students appear to have higher rates of postsecondary attainment than Black students for all measures of attainment.

Mothers' and fathers' education, occupation, and family income compose family socioeconomic status in 1988. Since we do not expect average family socioeconomic status to differ by gender within racial groups, it should not be surprising that the gender differences for Black respondents are not statistically significant. In contrast, the mean for White respondents is highly significant. We argue this may be because White males in the sample are more positively selected than White females, given that males tend to have lower response rates than females, and high socioeconomic status individuals tend to have higher response rates. We also examine three measures which provide more contextual information about respondents' family backgrounds. Our results indicate that less than half of the Black students in our sample

<sup>\*</sup>p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

were raised by their mother and father. However, Black males are slightly more likely than Black females to have been raised by both parents. In contrast, approximately 72% of White respondents were raised by their mother and father. There are also racial disparities in parents' marital status. Approximately 84% of White students, but only 55% of Black students, reported that their parents were married. Both Black and White respondents reported living in homes with four or five family members.

Next, we examine students' previous academic achievement. By analyzing students' self-reported grades over three points in time, we discover some interesting patterns. First, the gender difference is highly significant for both racial groups at all points in time. Females consistently outperform their same-race counterparts. The gender gap among Black students is also wider than it is among White students at all three points in time. Finally, all students' grade point averages drop over time. The grade reduction is most pronounced between tenth and twelfth grades and is more substantial for males in each racial group. Black students' grades drop by more than one grade point. This brings their grade point average from about a B to a C. White students' grades drop by less than one grade point from about a B to a B-/C+. These results are very important given that Walter Allen and Nesha Haniff (1991) concluded that for the students in their sample, high school grades are the strongest predictor of college grades.

The high school status variables do not vary significantly by gender with the exception of high school sequence for White students. In this case, White females are slightly more likely than White males to finish high school on time. About 18%–21% of Black students reported dropping out at least once in their high school career as compared to 12%–13% of White students.

Students' post-secondary expectations decline over time, perhaps because of their declining grade point averages. There is only one significant gender difference. In the tenth grade, White males are more likely than White females to expect to graduate from college. In contrast, teachers are more likely to report that female students will probably attend college. When respondents are in the tenth grade, teachers predict that approximately 60% of Black female students will attend college as compared to 48% of Black male students. The corresponding percentages for White female and male students are approximately 71% and 67%, respectively. As we can see, the gender gap in teachers' expectations for students to attend college is much wider among Black students. It also seems that teachers think that White students are more likely to attend college than Black students.

There are highly significant gender differences in students' behavior for both White and Black students. Black males and White males are more likely than same-race females to report fighting with another student. Approximately 30% of White males and 33% of Black males have been in a fight with a fellow student. Male students are also more likely than female students to have been sent to the office because they misbehaved. However, approximately 49% of Black males report being disciplined in this manner as opposed to 38% of White males. These findings support results from previous research where teachers reported that Black males were their most disruptive students (Brunn and Kao, 2004).

# **Multivariate Analyses**

Table 3 presents the results of a binary logistic regression of demographic characteristics, previous academic achievement, high school status, teachers' expectations that students would probably attend college, and students' own expectations for whether

**Table 3.** Effects of Previous Achievement, High School Status, and Background Characteristics on Associate's Degree Attainment Reported as Odds Ratios (N = 8606)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Demographic Characteristics:	0.3 (444	0.55444	0.00	0.07	0.04
Black male Black female	0.36*** 0.69***	0.57*** 1.45***	0.89 1.60***	0.87 1.53***	0.94 1.77***
White female	1.28***	1.49***	1.25***	1.24***	1.77
[White male]	1.20	1.1/	1.23	1.2	1.22
Family Background:					
Socioeconomic status in 1988		3.94***	2.59***	2.37***	2.27***
Mother-and-father-raised respondent					1.73***
Respondent's family size					0.89***
Respondent's parents are married					0.97
Previous Academic Achievement:			1 /7***	1 57***	1.54***
Grade 6–8 composite Grade 10 composite			1.67*** 1.26***	1.57*** 1.18**	1.17**
Grade 12 composite			2.11***	1.94***	1.17
High School Status:				217	117
High school sequence			3.23***	3.11***	3.08***
Ever dropped out of high school			0.48***	0.49***	0.55**
Students' Expectations:					
8th grade expect to graduate from college			1.16**	1.14*	1.13*
10th grade expect to graduate from college			1.42***	1.35***	1.35***
12th grade expect to graduate from college			1.23***	1.19**	1.19**
8th grade expect missing			1.70	1.83	1.79
10th grade expect missing			0.77	0.87	0.79
12th grade expect missing			0.61***	0.62***	0.61***
Teachers' Expectations:					
Student will probably attend college				2.54***	2.52***
Students' Behavior:					0.04
8th grade fought with another student					0.86
8th grade sent to office for misbehaving		0.40		0.04	1.02
Generalized R <sup>2</sup>	0.02	0.18	0.35	0.36	0.37

<sup>\*</sup>p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

they would graduate from college on whether a student received at least an associate's degree by 2000. In Model 1 (the baseline model) all race-gender dummies are significant. We can see that Black males have 0.36 times the odds of White males of receiving an associate's degree or more education by 2000. Black females and White females have 0.69 and 1.28 times the odds, respectively, of completing associate's degrees compared to White males. This indicates that with no controls in the model, Black males and females are disadvantaged relative to White males, and White females are advantaged relative to White males.

In Model 2, we add respondents' socioeconomic status to the model. This variable is highly significant, with respondents' odds of attaining an associate's degree or more education almost quadrupling for each one-unit increase in the socioeconomic status variable. After controlling for socioeconomic status in Model 2, Black females are 1.45 times more likely than White males to attain an associate's degree. However, Black males are still disadvantaged relative to White males, but less so than in Model 1. After taking socioeconomic status into account, Black males have about half the odds of White males of receiving an associate's degree or more education. In

contrast, White females are even more advantaged than White males after controlling for socioeconomic status.

Model 3 adds controls for previous academic achievement, high school status, and students' expectations. Our results indicate that students from privileged socio-economic backgrounds are more likely to have higher grade point averages, to have higher academic expectations, and/or to finish high school on time. The odds ratio for Black males is no longer significant in Model 3, suggesting that the odds of attaining an associate's degree are comparable for Black males and White males. The advantage of Black females over White males increases, while the advantage of White females decreases.

What is remarkable is that grade point average from junior high school, tenth grade, and twelfth grade are all highly significant in predicting the odds of earning an associate's degree. For sixth through eighth grade, a one-point increase on a four-point scale is associated with a 67% increase in the odds of attaining an associate's degree or more. The corresponding percentages for tenth grade and twelfth grade are approximately 26% and 111%, respectively.

A student who finished high school on time is 3.23 times more likely than a respondent who finishes high school late or not at all to receive an associate's degree or more education. A respondent who dropped out of high school at least once has less than half the odds of a respondent who never dropped out of high school of receiving an associate's degree. Students' educational expectations are also highly significant. Students who report in the eighth grade that they expect to graduate from college are 1.16 times more likely to earn an associate's degree than those who do not expect to graduate from college. The corresponding figures for tenth and twelfth grade are 1.42 times the odds and 1.23 times the odds of students who do not expect to graduate from college, respectively. Given that there were missing data on the expectations questions, especially in twelfth grade, we include a dummy variable that is equal to one if the respondent skipped this question. The variable is significant in the twelfth grade, indicating that students who skip this question are less likely to earn an associate's degree.

In Model 4 we add teachers' expectations to the equation. This variable is highly significant. Students whose tenth-grade teachers said that they would probably attend college are about 2.5 times more likely to earn an associate's degree or more education than students whose teachers said they probably would not attend college. It is interesting that teachers' expectations of students is such a strong predictor even after controlling for respondents' grade point average. In the final model (Model 5), we attempt to identify factors that might mediate the relationship between family socioeconomic status and degree attainment. By including these variables, we account for almost half of the effect of socioeconomic status in Model 1. Students who were raised by both parents are 1.73 times more likely than students who were raised in another family formation to earn an associate's degree. In contrast, for each additional person in a respondent's family, his or her odds of attaining an associate's degree decrease by approximately 11%.

We also added two measures that are associated with students' behavior in an effort to explain the source of teachers' expectations. However, neither measure is significant. In the final model, Black females and White females remain advantaged relative to White males. Black females' odds of attaining an associate's degree are 1.77 times White males' odds. White females' odds are 1.22 times White males' odds. The effects of the control variables remain the same. Table 4 presents the results of a binary logistic regression of demographic characteristics, previous academic achievement, high school status, and teachers' and students' expectations on

**Table 4.** Effects of Previous Achievement, High School Status, and Background Characteristics on Bachelor's Degree Attainment Reported as Odds Ratios (N = 8606)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Demographic Characteristics:	0.2/***	0 (1***	1.20	1.21	1.34
Black male Black female	0.36*** 0.66***	0.61*** 1.55***	1.20	1.21	2.30***
White female	1.26***	1.51***	1.21**	1.21**	1.19*
[White male]	1.20	1.01	1121	1121	1117
Family Background:					
Socioeconomic status in 1988		5.05***	3.64***	3.32***	3.19***
Mother-and-father-raised respondent					2.16***
Respondent's family size					0.88*** 0.86
Respondent's parents are married					0.86
Previous Academic Achievement: Grade 6–8 composite			1.95***	1.83***	1.80***
Grade 10 composite			1.40***	1.30***	1.29***
Grade 12 composite			2.46***	2.25***	2.25***
High School Status:					
High school sequence			4.61***	4.42***	4.44***
Ever dropped out of high school			0.22***	0.23***	0.28***
Students' Expectations:					
8th grade expect to graduate from college			1.23**	1.22**	1.20**
10th grade expect to graduate from college			1.41***	1.34***	1.34***
12th grade expect to graduate from college			1.36***	1.31***	1.31***
8th grade expect missing			1.02	1.13	0.93
10th grade expect missing			0.87 0.61***	1.01 0.62***	0.90 0.60***
12th grade expect missing			0.01	0.02	0.60
Teachers' Expectations:				2.97***	2.94***
Student will probably attend college				2.97	2.94
Students' Behavior: 8th grade fought with another student					0.80*
8th grade sent to office for misbehaving					1.06
Generalized $R^2$	0.02	0.21	0.39	0.40	0.41

<sup>\*</sup>p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

the odds of students receiving a bachelor's degree or more education by 2000. In Model 1, the baseline model, the race-gender dummies are highly significant. As we saw when associate's degree or more education was the dependent variable, compared to White males, Black males and females are disadvantaged in attaining a bachelor's degree and White females are advantaged. Specifically, Black males, Black females, and White females have 0.36, 0.66, and 1.26 times the odds of White males, respectively.

When we add socioeconomic status to the equation in Model 2, White females become even more advantaged relative to White males. Black males remain disadvantaged, but not as severely as they are in Model 1. After controlling for socioeconomic status, Black females are more likely than White males to attain a bachelor's degree or more education by 2000. This indicates that Black females' disadvantage relative to White males in Model 1 was due to their less privileged socioeconomic standing. Recall that we also observed this pattern when an associate's degree or more education was the dependent variable. The socioeconomic status variable is

highly significant in Model 2—every one-point increase in standing increases respondents' odds of earning a bachelor's degree or more education by a factor of five.

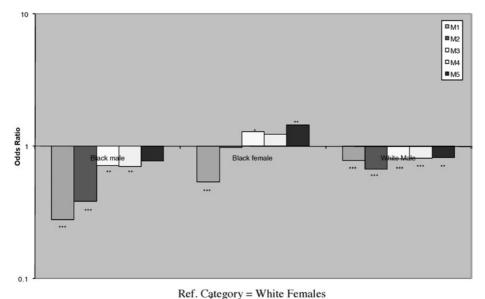
In Model 3, we add variables to measure previous academic achievement, high school status, and students' expectations. After controlling for these variables, the Black-male dummy variable is no longer significant. This indicates that Black males' odds of attaining a bachelor's degree or more education by 2000 are no different than White males' odds after accounting for socioeconomic status and high school experiences.

Previous academic achievement, at all three time points, is highly significant. A one-point increase on a four-point scale for grade point average multiplies respondents' odds of attaining a bachelor's degree or more education in 2000 by approximately 2.0, 1.4, and 2.5 in sixth through eighth grade, tenth grade, and twelfth grade, respectively. Respondents who finished high school on time were more than 4.5 times more likely to attain a bachelor's degree than those who finished high school late or not at all. Students who dropped out of school at least once by 1994 had about 0.22 times the odds of earning a bachelor's degree compared to students who never dropped out of school. Students' educational expectations are also statistically significant. As we anticipated, students who expect to graduate from college are more likely to receive a bachelor's degree. In Model 4, we add teachers' expectations of students. Students whose tenth-grade teachers said that they would probably attend college are almost three times more likely to get a bachelor's degree or more education than students whose teachers said that they probably would not attend college. The results for the other control variables are largely unchanged.

In Model 5 we add variables to more fully understand how socioeconomic status affects degree attainment and to understand how teachers predict students' likelihood of college attendance after holding students' academic achievement constant. We find that students who were raised by their mother and father have more than two times the odds of earning a bachelor's degree compared to students who were not raised by both parents. However, for each additional person living in a student's family, his or her odds of earning a bachelor's degree decrease by about 12%. Respondents who have gotten into a fight with another student have 0.8 times the odds of receiving a bachelor's degree or more education, compared to respondents who have not gotten into a fight.

Given that the question teachers were asked is more directly about postsecondary enrollment rather than postsecondary degree attainment, in auxiliary analyses we examined the effect of teachers' expectations on whether students reported receiving some postsecondary education or no postsecondary education by 1994. If a student reported receiving no postsecondary education, that they were currently working on a certificate or license, or that they had received a certificate or license, they were coded as having no postsecondary education. If a student reported that they were currently working toward an associate's or a bachelor's degree, had received some postsecondary education, or had already received an associate's degree, they were coded as having some postsecondary education.<sup>17</sup> Students whose teachers said that they would probably attend college were 1.8 times more likely to have received some postsecondary education than students whose teachers said that they probably would not attend college. This indicates that teachers' expectations have similar effects on both enrollment and attainment.

While Tables 3 and 4 give us information on how Black males and Black females compare to White males with regard to associate's and bachelor's degree attainment, they do not tell us much about how Black males and Black females compare to each



\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

Fig. 1. Associate's Degree Attainment

other. We are also interested in how Black and White females' likelihood of attaining a degree differs. In order to observe these relationships we reran the models in Table 3 and Table 4 while switching the reference category. In Figures 1 through 4 we present the odds ratios for the race-gender dummies. The figures are presented on a logarithmic scale. As the odds ratios approach one, each race-gender group becomes more similar to the reference category. The control variables remain in the model, but are not presented in the figures.

Figure 1 presents the race-gender effects on associate's degree attainment when White females are the reference category. In Model 1, Black males, Black females, and White males are disadvantaged relative to White females with regard to their odds of attaining an associate's degree or more education by 2000. After controlling for socioeconomic status in Model 2, the odds ratio for Black females is no longer statistically significant. This indicates that Black females and White females from the same socioeconomic background are equally likely to hold at least an associate's degree by 2000. However, Black males and White males continue to be disadvantaged relative to White females. In fact, White males are more disadvantaged than they were in Model 1.

Recall that in Model 3 we add controls for previous academic achievement, high school status, and students' educational expectations to the equation. Black males and White males remain disadvantaged relative to White females, however not to the extent that they were in previous models. After controlling for teachers' expectations in Model 4, Black males and White males remain disadvantaged as compared to White females. In the full model, Model 5, we control for household composition, parents' marital status, family size, and students' behavior. After controlling for these factors, Black males are no longer statistically different from White females. In contrast, Black females regain their advantage over White females. White males remain disadvantaged relative to White females.

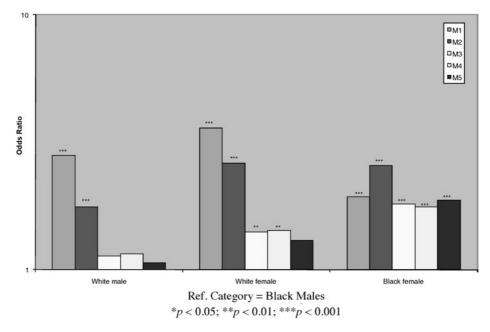


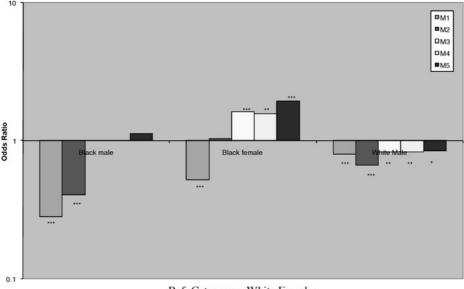
Fig. 2. Associate's Degree Attainment

Figure 2 presents the race-gender effects on associate's degree attainment when Black males are the reference category. In Model 1, White males, White females, and Black females are advantaged. Black females have about 1.9 times the odds of attaining as associate's degree compared to Black males when there are no control variables in the model. The results from Model 1 in Figures 1 and 2 indicate that White females are the most advantaged group, and Black males are the least advantaged group with regard to associate's degree attainment. White males and Black females fall in between, in that order.

In Model 2, when Black males are the reference category, White males and White females are not as advantaged as they were compared to Black males in Model 1. In contrast, Black females are even more advantaged than they were with no controls in the model. These findings indicate that among Black males and females from the same socioeconomic status background, Black females are 2.5 times as likely as Black males to earn an associate's degree.

However, after controlling for previous academic achievement, high school status, and students' expectations in Model 3, White males' odds of attaining an associate's degree are no different than Black males' odds. White females and Black females remain advantaged relative to Black males, but to a lesser degree than before. In Models 4 and 5, Black females remain advantaged relative to Black males. However, in Model 5, White females' odds are no longer statistically different from Black males' odds of attaining an associate's degree.

Figure 3 presents the race-gender effects on bachelor's degree attainment when White females are the reference category while controlling for the other variables in the model. As in Figure 1, we see that in Model 1, when White female is the reference category, Black males, Black females, and White males are disadvantaged in their likelihood of attaining a bachelor's degree. After controlling for socioeconomic status in Model 2, Black females are no longer statistically different from



Ref. Category = White Females p < 0.05; p < 0.01; p < 0.01

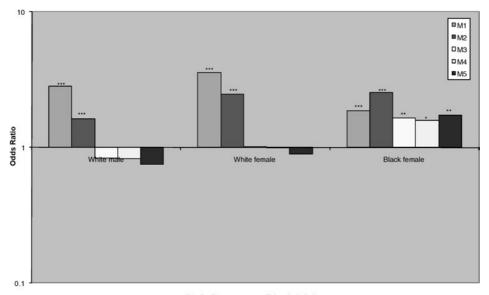
Fig. 3. Bachelor's Degree Attainment

White females. Black males are less disadvantaged than they were in Model 1, and White males are more disadvantaged than they were in Model 1. This indicates that on average, Black males and females in this sample are from less privileged socioeconomic backgrounds than White females, and on average, White males in this sample are from more privileged socioeconomic backgrounds than White females.

After controlling for previous academic achievement, high school status, and students' expectations in Model 3, Black males are no longer significantly different from White females. However, Black females have 1.62 times the odds of attaining a bachelor's degree compared to White females. Black females continue to have higher odds of bachelor's degree attainment than White females in Models 4 and 5. Their advantage grows slightly after controlling for household composition, parents' marital status, family size, and respondents' behavior. White males remain disadvantaged as compared to White females in both models.

Figure 4 illustrates that when no controls are present, White males are about 2.8 times more likely than Black males to receive a bachelor's degree or more education, and White females are about 3.5 times more likely. Black females are almost two times as likely as Black males to receive a bachelor's degree or more education by 2000.

Similar to our findings in Figure 2, we see that when Black male is the reference category in Model 2, the relative advantage of White males and White females with regard to bachelor's degree attainment decreases in magnitude, and the relative advantage of Black females increases (as compared to Model 1). In Model 3, White male and female students are no longer statistically different from Black male students. However, Black females retain their advantage. Black females continue to have higher odds of bachelor's degree attainment than Black males in Models 4 and 5. Their advantage grows slightly after controlling for household composition, parents' marital status, family size, and respondents' behavior.



Ref. Category = Black Males p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

Fig. 4. Bachelor's Degree Attainment

# Discussion and Implications for Future Research

There are many commonalities in our examination of the odds of completing at least an associate's degree versus at least a bachelor's degree. With no controls in the model, females of both races are more likely than their same-race male counterparts to receive at least an associate's degree or at least a bachelor's degree. In fact, after controlling for socioeconomic status alone, Black females are more likely than White males to hold at least an associate's or a bachelor's degree. This suggests that socioeconomic status differences account for the differential in degree completion between Black women and White men. Our results also indicate that for Black males and Black females with the same socioeconomic status background, Black females are 2.5 times as likely as Black males to earn an associate's degree or a bachelor's degree by 2000. It is also noteworthy that after controlling for differences in socioeconomic status, Black females and White females have comparable odds of attaining an associate's degree or a bachelor's degree. In fact, in later models, Black females have greater odds than White females of attaining a postsecondary degree.

Our results point to the importance of early school achievement for later educational attainment. In fact, after controlling for socioeconomic status, previous academic achievement, high school status, and students' expectations, Black males' odds of attaining an associate's or a bachelor's degree are no different from White males' odds. Black males' odds of bachelor's degree attainment are also comparable to White females' odds after controlling for the aforementioned variables. However, Black males' odds of attaining an associate's degree are additionally dependent on teachers' expectations, respondents' behavior, and family composition in order to be equal to White females' odds. These results suggest that the differentiation along racial lines occurs in secondary school—differences in attainment simply mirror earlier patterns of stratification. This conclusion supports Trusty and Niles's (2004) earlier study.

Previous research suggests that the negative experiences of Black students on college campuses may play a role in their higher attrition rates as compared to Whites. For example, Vincent Tinto (1993) argued that students who are not attached to their school are more likely to drop out. Extant research has suggested that Black students may find it difficult to become attached to the colleges and universities they attend. In *The Agony of Education* (1996), Joe Feagin et al. conducted focus group interviews with thirty-six randomly selected Black juniors and seniors at a predominantly White public university. Respondents reported that they often felt invisible on campus, that they perceived physical spaces on campus to be hostile, and that White students refused to recognize their unearned privilege. Our results, however, underscore the importance of middle school and high school experiences on attainment. What remains unexplained in our results is the gender disparity. Because females' advantage over same-race males in educational attainment cannot yet be explained, it is important that future research examine students' college experiences at the intersection of race and gender categories.

In our full models for both associate's and bachelor's degree attainment, Black females' odds are greater than those of White males, White females, and Black males. These results highlight the progress that Black females have made toward postsecondary attainment. However, our findings also indicate that we must continue to search for interventions that address the lower grade point averages of Black males. These interventions should begin in elementary school because our results, as well as the work of previous researchers, have demonstrated that the gender gap in academic performance already exists in eighth grade.

In addition to grades, socioeconomic status and students' educational expectations continue to be important predictors of degree attainment. Teachers' expectations also appear to have powerful effects in these analyses. However, it is unclear whether teachers are making accurate predictions of students' likelihood of college attendance based on observed academic potential that cannot be measured by grades alone, or if teachers' lower expectations are depressing students' subsequent attainment. Future research should attempt to disentangle these effects.

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#### **NOTES**

- 1. An earlier draft of this paper was presented at the 2005 Annual Meetings of the American Sociological Association. This research was supported by a grant from the Spencer Foundation and the University of Pennsylvania Research Foundation.
- 2. Lisa Hudson et al. (2005) found no difference in the gender gap among Whites aged 18–24 as compared to the gender gap among Blacks of the same age group. It should be noted that the authors use participation rates as opposed to enrollment rates.
- White males continued to receive more bachelor's degrees than White females in 1980/ 81. However, in 1984/85 White females outnumbered White males among recipients of bachelor's degrees (authors' calculation from the *Digest of Education Statistics 2005*, Snyder et al., 2006).
- 4. By 1980, White females had surpassed White males in postsecondary enrollment (authors' calculation from the *Digest of Education Statistics 2002*, Snyder 2002).
- 5. Michael Nettles and Laura Perna (1997) found that Black females' enrollment is 24% higher than their male counterparts. The corresponding percentage for White females is 10%.
- 6. Gender differences among Blacks, which is the primary topic of this paper, are also important and will be discussed later.

- 7. As mentioned earlier, Black females' enrollment in higher education had already surpassed Black males' enrollment when the Census began tracking enrollment systematically by race and gender in 1976 (Cross 1999).
- 8. Examining increases in bachelor's degree attainment between 1975/76 and 1980/81, William Trent (1991) finds that most of the growth for all racial groups was attributable to females.
- 9. Crane (1991) noted that the lack of a negative effect among Black females may be a result of sampling bias.
- 10. After the students were identified in the base year, the school coordinator picked a teacher from a "hard class" (math or science) and a "soft class" (English or history) to complete the teacher questionnaire for each student. In Follow-up 1, teachers from a hard class and a soft class were surveyed again. In Follow-up 2, only one teacher was surveyed (Curtin et al., 2002).
- 11. To reduce the amount of missing data we only include in the sample Blacks and Whites who filled out questionnaires in 1988, 1990, 1992, 1994, and 2000. We also use the appropriate weights in the descriptive statistics and the multivariate analyses to account for this sampling design.
- 12. One parent was surveyed in the base year of NELS (Curtin et al., 2002). In our sample, about 81.17% of parents who responded were the students' mothers. Approximately 14.86% of parents were the students' fathers. The parent who responded was also asked to provide information about his or her spouse or partner.
- 13. In the text, we may simply write "an associate's degree" or "a bachelor's degree," but in all instances we mean an associate's degree or higher, or a bachelor's degree or higher.
- 14. A response of "I don't know" was coded as zero.
- 15. The correlation between students' grades over the three time points is approximately 0.5.
- 16. The correlation between students' educational expectations over the three time points is approximately 0.3.
- 17. Since students who graduated on time finished high school in 1992, an associate's degree is the highest postsecondary degree they could have received by 1994.
- 18. Mitzi Davis et al. (2004) came to similar conclusions in their study of Black students at a predominantly White university.

# **REFERENCES**

- Adelman, Clifford (1998). More than 13 Ways of Looking at Degree Attainment. *National CrossTalk*, 6(4): 11–12.
- Adelman, Clifford (1999). Answers in the Tool Box: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment. Washington, DC: U.S. Department of Education.
- Allen, Walter R., and Nesha Z. Haniff (1991). Race, Gender, and Academic Performance in U.S. Higher Education. In Walter R. Allen, Edgar G. Epps, and Nesha Z. Haniff (Eds.), College in Black and White: African American Students in Predominantly White and in Historically Black Public Universities, pp. 95–110. Albany, NY: State University of New York Press.
- Allen, Walter R., and Daniel G. Solorzano (2001). Affirmative Action, Educational Equity, and Campus Racial Climate: A Case Study of the University of Michigan Law School. *Berkeley La Raza Law Journal*, 12(2): 237–363.
- Blau, Peter M., and Otis Dudley Duncan (1967). The American Occupational Structure. New York: Wiley.
- Bowen, William G., and Derek Bok (1998). The Shape of the River: Long-Term Consequences of Considering Race in College and University Admissions. Princeton, NJ: Princeton University Press.
- Bowles, Samuel, and Herbert Gintis (1976). Schooling in Capitalist America: Educational Reform and the Contradictions of Economic Life. New York: Basic Books.
- Brunn, Rachelle, and Grace Kao (2004). Do Teacher Expectations Matter for the Achievement and Expectations of African Americans? A Comparison of African American and White Boys and Girls. Department of Sociology, University of Pennsylvania, Philadelphia, PA. Unpublished manuscript.
- Buchmann, Claudia, and Thomas A. DiPrete (2006). The Growing Female Advantage in College Completion. *American Sociological Review*, 71(4): 515–541.

- Chenoweth, Karin (1998). The Surging Degree Wave. Black Issues in Higher Education, 15(10): 20–23.
- Cohen, Cathy J., and Claire E. Nee (2000). Educational Attainment and Sex Differentials in African American Communities. *American Behavioral Scientist*, 43(7): 1159–1206.
- Cose, Ellis (2003). The Black Gender Gap. Newsweek. March 3, p. 46.
- Crane, Jonathan (1991). The Epidemic Theory of Ghettos and Neighborhood Effects on Dropping Out and Teenage Childbearing. *American Journal of Sociology*, 96(5): 1226–1259.
- Crosnoe, Robert, Monica Kirkpatrick Johnson, Glen H. Elder, Jr. (2004). Intergenerational Bonding in School: The Behavioral and Contextual Correlates of Student-Teacher Relationships. *Sociology of Education*, 77(1): 60–81.
- Cross, Theodore (Ed.) (1999). Special Report: College Degree Awards: The Ominous Gender Gap in African-American Higher Education. *Journal of Blacks in Higher Education*, no. 23: 6–9.
- Curtin, Thomas R., Steven J. Ingels, Shiying Wu, and Ruth Heuer (2002). *National Education Longitudinal Study of 1988: Base-Year to Fourth Follow-up Data File User's Manual* (NCES 2002-323). Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Davis, Mitzi, Yvonne Dias-Bowie, Katherine Greenberg, Gary Klukken, Howard R. Pollio, Sandra P. Thomas, and Charles L. Thompson (2004). "A Fly in the Buttermilk": Descriptions of University Life by Successful Undergraduate Students at a Predominantly White Southeastern University. *Journal of Higher Education*, 75 (4): 420–445.
- DesJardins, Stephen L., Dennis A. Ahlburg, and Brian P. McCall (2002). A Temporal Investigation of Factors Related to Timely Degree Completion. *Journal of Higher Education*, 73(5): 555–581.
- Dinwiddie, Gniesha Y., and Walter R. Allen (2003). Two Steps Forward, Three Steps Back: Campus Climate, Gender, and African American Representation in Higher Education. In Carol Camp Yeakey and Ronald D. Henderson (Eds.), Surmounting All Odds: Education, Opportunity, and Society in the New Millennium, pp. 563–594. Greenwich, CT: Information Age.
- Ehrenberg, Ronald G., Daniel D. Goldhaber, and Dominic J. Brewer (1995). Do Teacher's Race, Gender, and Ethnicity Matter? Evidence from the National Educational Longitudinal Study of 1988. *Industrial and Labor Relations Review*, 48(3): 547–561.
- Ehrmann, Nicholas, and Douglas S. Massey (2008). Gender-Specific Effects of Ecological Conditions on College Achievement. *Social Science Research*, 37(1): 202–219.
- Entwisle, Doris R., Karl L. Alexander, and Linda Steffel Olson (1994). The Gender Gap in Math: Its Possible Origins in Neighborhood Effects. *American Sociological Review*, 59(6): 822–838.
- Feagin, Joe, Hernán Vera, and Nikitah Imani (1996). The Agony of Education: Black Students at White Colleges and Universities. New York: Routledge.
- Ferguson, Ann Arnett (2001). Bad Boys: Public Schools in the Making of Black Masculinity. Ann Arbor, MI: University of Michigan Press.
- Hacker, Andrew (2003). Mismatch: The Growing Gulf between Men and Women. New York: Scribner.
- Hanson, Sandra L. (1994). Lost Talent: Unrealized Educational Aspirations and Expectations among U.S. Youths. *Sociology of Education*, 67(3): 159–183.
- Hauser, Robert M., and Douglas K. Anderson (1991). Post–High School Plans and Aspirations of Black and White High School Seniors: 1976–86. *Sociology of Education*, 64(4): 263–277.
- Hu, Shouping, and Edward P. St. John (2001). Student Persistence in a Public Higher Education System: Understanding Racial and Ethnic Differences. *Journal of Higher Education*, 72(3): 265–286.
- Hudson, Lisa, Sally Aquilino, and Gregory Kienzl (2005). *Postsecondary Participation Rates by Sex and Race/Ethnicity:* 1974–2003 (NCES 2005-028). Washington, DC: U.S. Department of Education, National Center of Education Statistics.
- Jencks, Christopher, and Meredith Phillips (Eds.) (1998). The Black White Test Score Gap. Washington, DC: Brookings Institution.
- Kao, Grace, and Jennifer Thompson (2003). Racial and Ethnic Stratification in Educational Achievement and Attainment. *Annual Review of Sociology*, 29(1): 417–442.
- Kao, Grace, and Marta Tienda (1998). Educational Aspirations of Minority Youth. *American Journal of Education*, 106(3): 349–384.
- Karen, David (1991). The Politics of Class, Race, and Gender: Access to Higher Education in the United States, 1960–1986. *American Journal of Education*, 99(2): 208–237.

- Lopez, Nancy (2003). Hopeful Girls, Troubled Boys: Race and Gender Disparity in Urban Education. New York: Routledge.
- MacLeod, Jay (1995). Ain't No Makin' It: Aspirations and Attainment in a Low-Income Neighborbood. Boulder, CO: Westview.
- Massey, Douglas S., Camille Z. Charles, Garvey F. Lundy, and Mary J. Fischer (2003). *The Source of the River: The Social Origins of Freshmen at America's Selective Colleges and Universities*. Princeton, NJ: Princeton University Press.
- Massey, Douglas S., and Mary J. Fischer (2005). Stereotype Threat and Academic Performance: New Findings from a Racially Diverse Sample of College Freshmen. *Du Bois Review*, 2(1): 45–67.
- Mickelson, Roslyn Arlin (1990). The Attitude-Achievement Paradox among Black Adolescents. *Sociology of Education*, 63(1): 44–61.
- Nettles, Michael T., and Laura W. Perna (1997). The African American Education Data Book: Volume I: Higher and Adult Education. Fairfax, VA: Frederick D. Patterson Research Institute.
- Paulsen, Michael B., and Edward P. St. John (2002). Social Class and College Costs: Examining the Financial Nexus between College Choice and Persistence. *Journal of Higher Education*, 73(2): 189–236.
- Perna, Laura Walter (2000). Differences in the Decision to Attend College among African Americans, Hispanics, and Whites. *Journal of Higher Education*, 71(2): 117–141.
- Perna, Laura Walter, and Marvin A. Titus (2005). The Relationship between Parental Involvement as Social Capital and College Enrollment: An Examination of Racial/Ethnic Group Differences. *Journal of Higher Education*, 76(5): 485–518.
- Qian, Zhenchao, and Sampson Lee Blair (1999). Racial/Ethnic Differences in Educational Aspirations of High School Seniors. *Sociological Perspectives*, 42(4): 605–625.
- Sewell, William H., and Vimal P. Shah (1968). Social Class, Parental Encouragement, and Educational Aspirations. *American Journal of Sociology*, 73(5): 559–572.
- Snyder, Thomas (2002). Digest of Education Statistics 2002 (NCES 2003–060). Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Snyder, Thomas D., Alexandra G. Tan, and Charlene M. Hoffman (2006). Digest of Education Statistics 2005 (NCES 2006-030). Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- St. John, Edward P., Michael B. Paulsen, and Deborah Faye Carter (2005). Diversity, College Costs, and Postsecondary Opportunity: An Examination of the Financial Nexus between College Choice and Persistence for African Americans and Whites. *Journal of Higher Education*, 76(5): 545–569.
- Tinto, Vincent (1993). Leaving College: Rethinking the Causes and Cures of Student Attrition, 2nd ed. Chicago, IL: University of Chicago Press.
- Trent, William T. (1984). Equity Considerations in Higher Education: Race and Sex Differences in Degree Attainment and Major Field from 1976 through 1981. *American Journal of Education*, 92(3): 280–305.
- Trent, William T. (1991). Focus on Equity: Race and Gender Differences in Degree Attainment, 1975–76; 1980–81. In Walter R. Allen, Edgar G. Epps, and Nesha Z. Haniff (Eds.), College in Black and White: African American Students in Predominantly White and in Historically Black Public Universities, pp. 41–60. Albany, NY: State University of New York Press.
- Trusty, Jerry (2004). The Effects of Students' Middle-School and High-School Experiences on Completion of the Bachelor's Degree (Research Monograph No. 1). Amherst, MA: Center for School Counseling Outcome Research.
- Trusty, Jerry, and Spencer G. Niles (2004). Realized Potential or Lost Talent: High School Variables and Bachelor's Degree Completion. *Career Development Quarterly*, 53(1): 2–15.