



Project
MUSE[®]

Today's Research. Tomorrow's Inspiration.

The Review of Higher Education

Spring 2010, Volume 33, No. 3, pp. 307–332

Copyright © 2010 Association for the Study of Higher Education

All Rights Reserved (ISSN 0162-5748)

When Race and Gender Collide: Social and Cultural Capital's Influence on the Academic Achievement of African American and Latino Males

Terrell L. Strayhorn

Student retention in college is a major policy issue in higher education, and it has garnered much attention in the research literature. Indeed, student departure from college is a complex puzzle with just as many causes

TERRELL L. STRAYHORN is an Associate Professor of Higher Education/Sociology in the Department of Educational Leadership and Policy Studies and Special Assistant to the Provost at the University of Tennessee-Knoxville, where he also serves as Director of the Center for Higher Education Research and Policy (CHERP). His scholarly contributions center on the breadth of social circumstances impacting the experiences and success of African Americans in the educational pipeline with a particular emphasis on the condition of undergraduate and graduate education for African American males. Recent work appears in, among other venues, the *Journal of Higher Education*, *Journal of College Student Development*, *NASPA Journal*, and *Negro Educational Review*. ACKNOWLEDGMENTS: The research which is the subject of this publication was supported by grants from the Tennessee Higher Education Commission and the U.S. Department of Education under the auspices of the Improving Teacher Quality Grant Program (Title II, Part A, 84.367B), as well as the National Science Foundation (EHR #0747304). Previous versions of this paper were presented at the National Conference on Race and Ethnicity (NCORE) in Higher Education in Orlando and the ASHE Annual Meeting in Jacksonville, Florida. Address queries to him at 1122 Volunteer Boulevard, 316 Bailey Education Complex, Knoxville, TN 37996; telephone: (865) 974-6457; fax: (865) 974-0135; email: strayhorn@utk.edu.

as potential cures (Braxton, 2000). Some authors have shown that college student retention is a function of academic preparation (Adelman, 1999; Tinto, 1993). That is, some students drop out of college because they lack the requisite knowledge and skills for college-level work; conversely, those who stay in college are believed to possess the skills needed to manage the rigor of college-level academics. Still other studies have shown that student departure from college is caused by students' inability to adjust to the collegiate environment (e.g., Cabrera, Nora, Terenzini, Pascarella, & Hagedorn, 1999; Eimers & Pike, 1997; Schwitzer, Griffin, Ancis, & Thomas, 1999). In such instances, students may struggle in managing their emotions about being away from homes, families, or high school friends (Hurtado, Carter, & Spuler, 1996). As a result, some individuals may opt to leave college to return to their place of origin which is both familiar and comfortable.

Second, academic achievement also has been tied to retention (Adelman, 1999; Hyers & Joslin, 1998; Kao & Thompson, 2003; Strayhorn, 2006). On the one hand, there is a rather intuitive relationship between academic achievement and retention in college. That is, students who earn good grades are also more likely to maintain good standing according to standards set by most universities. Those who remain in good standing are generally eligible to remain enrolled semester to semester, year to year. Students who fail to meet academic standards, however, may be dismissed involuntarily, although academic dismissals represent only 15–25% of all institutional departures (Tinto, 1993). On the other hand, academic achievement may indicate that a student possesses the competencies needed to succeed in college and that she or he may be more academically integrated in the college environment, therefore more likely to remain enrolled (Tinto, 1993).

Countless studies have been conducted on factors that promote academic achievement for students. For example, some research suggests that time spent on homework has a positive association with academic achievement as measured by grades for both high school (Cooper, 1989; Fehrmann, Keith, & Reimers, 1987; Keith, 1982; Keith & Page, 1985b; Natriello & McDill, 1986; Walberg, Paschal, & Weinstein, 1985) and college students (Pascarella, Pierson, Wolniak, & Terenzini, 2004). Studies provide consistent evidence that students' instructional and out-of-classroom experiences make positive, statistically significant, contributions to learning gains for elementary (Walberg, Paschal, & Weinstein, 1985), high school (Keith, 1982; Keith & Page, 1985a), and even college students (Pascarella & Terenzini, 1991).

Though far from perfect, the link between college students' grades—one of many proxies used to measure academic integration—and retention is established by other sources (e.g., Baird, 1985; Hoffman & Lowitzki, 2005). Baird (1985) explained that beliefs in the relationship between grades and success may be reasonable, since “most attainments [e.g., retention] are to some degree dependent on the ability to read, understand, and analyze writ-

ten materials, and on knowledge and understanding of mathematical concepts such as those represented in academic ability tests and the classroom” (p. 4). College student success, however, is influenced by what happens both in and outside of the classroom (Kuh, Schuh, Whitt, & Associates, 1991).

A significant, and growing, line of inquiry provides empirical support for the impact of extra- or cocurricular involvement on academic achievement (e.g., Allen, 1992; Astin, 1993; Cooper, Healy, & Simpson, 1994). For example, Allen analyzed survey data from 1,800 respondents and found that social involvement, engagement with faculty members, and positive experiences with peers whose backgrounds differ from one’s own influenced academic achievement, although Black students attending predominantly White institutions (PWIs) reported lower grades, on average.

THEORETICAL FRAMEWORKS

Several theoretical contributions supply constructs for talking about the structural and cultural constraints implicit in American society in general and in the educational pipeline in particular (e.g., Oakes, 1985), that continually yield educational disparities for racial/ethnic minorities and other students from historically underrepresented populations. These same constraints often render an image of minorities as deficient in terms of social and cultural capital. On the contrary, I argue, along with Hagedorn and Tierney (2002), that minority students bring with them various forms of culture that may be decidedly different from the “culture” privileged in schooling contexts. However, minority students’ social and cultural capital reservoirs are nonetheless important in terms of educational outcomes.

“Social capital” refers to instrumental, productive relationships or networks (Stanton-Salazar, 1997) that provide access to opportunity or lead to advantageous outcomes (Coleman, 1988). “Cultural capital,” on the other hand, refers to high-status linguistic and cultural competencies (e.g., values, preferences, tastes) that students inherit from their parents and other “cultural brokers” such as siblings, peers, and “institutional agents,” such as faculty (Stanton-Salazar, 1997). A sizeable body of knowledge has established such pre-college resources as one of the most powerful predictors of achievement (e.g., Adelman, 1999; Warburton, Bugarin, & Nunez, 2001).

Social capital in college is often gained by participating in out-of-classroom experiences such as clubs and organizations (Pascarella, Pierson, Wolniak, & Terenzini, 2004). In fact, social-capital-accruing experiences—educational experiences that facilitate the development of supportive relationships with others—may be a way for students to acquire the cultural capital that promotes success in college (Pascarella et al., 2004; Strayhorn, 2008g). For instance, Astin (1984) formulated a theory of student involvement in collegiate activities, building on Pace’s (1980) notion of the quality

of college students' efforts. Astin surmised that student involvement consists of both quantitative and qualitative elements. Quantitative characteristics of student involvement focus on the frequency with which students engage in particular activities such as clubs and campus organizations. Qualitative notions determine the nature of such involvement by focusing on the extent to which students become engaged in campus activities (e.g., joining a club, giving leadership to a committee). Astin believed that the outcomes of student involvement are directly proportional to the quantity (i.e., amount) and quality (i.e., nature) of students' physical and psychological investment in the specific activity. Thus, some students may be involved in educationally meaningful activities such as student government which, in turn, may facilitate interactions between students and faculty members or campus administrators. On this point, Harper (2006) found that Black male undergraduates who are actively involved in clubs and organizations gain more from their college experiences, access exclusive social networks (e.g., interact with high-profile administrators), and acquire practical competencies (e.g., managing time) that research has shown to be critical to "success during and after college" (Kuh, Palmer, & Kish, 2003, p. 19).

A plethora of studies substantiates the theoretical links between students' engagement in educationally purposeful activities and gains in personal, social, and academic functioning (e.g., Cooper, Healy, & Simpson, 1994; Kuh, Schuh, et al., 1991; Strayhorn, 2008c). Indeed, student engagement has been associated with robust educational gains such as critical thinking (Cruce, Wolniak, Seifert, & Pascarella, 2006); intellectual development (Pike, 2000), even among African American men (Strayhorn, 2008a); and persistence (Berger & Milem, 1999; Gloria, Castellanos, Lopez, & Rosales, 2005), to name but a few, although comparatively little is known about the role that engagement plays on academic achievement in college.

Additional information is warranted particularly with respect to those who may, according to prevailing capital understandings, lack the social and cultural capital necessary for success in college. Minority college students represent such a group. (I use interchangeably "Black" and "African American" and also "Latino" and "Hispanic.") African American and Latino youth are more likely to hail from low-income families (Choy, 2000), more likely to be at-risk for dropout from school (Bailey & Moore, 2004; Hopkins, 1997), and less likely to have college-educated parents (Hrabowski, Maton, & Greif, 1998), all of which are related to the amount of social and cultural capital that one inherits or acquires (Bourdieu, 1977). Furthermore, the situation is even bleaker for African American and Latino males, given their precarious situation in American society in general and the education system in particular.

First, consider the present situation of Black men in higher education. Recent research by Cuyjet and his associates (2006) suggests that gender dis-

parities in terms of college enrollment and attainment are most pronounced among African Americans, with Black women outnumbering Black men on campus by slightly more than 2 to 1. Additionally, African American males continue to be described with words that have negative connotations such as “dysfunctional” (Majors & Billson, 1992), “at-risk” (Bailey & Moore, 2004), “developmentally disadvantaged” (Cooley, Cornell, & Lee, 1991); “uneducable” (Ferguson, 2000), “enraged” (hooks, 2004), and “an endangered species” (Gibbs, 1988; Parham & McDavis, 1987). Some Black men internalize these messages, which become “self-defeating” and “self-threatening” (Steele, 2000) and which may undermine their academic performance.

Furthermore, research consistently shows that Black students attending PWIs perceive such environments as unsupportive, unsympathetic, and “chilly” (Fleming, 1984; Palmer & Gasman, 2008). They also report feeling undue pressure to prove themselves academically in such contexts, despite prior achievements (Strayhorn, 2008f). Alarming national statistics forecast a future that, without intervention, is in serious jeopardy (Polite & Davis, 1999). African American men represent less than 5% of all undergraduates in the nation—indeed, the exact same proportion as in 1976. In other words, there has been little to no progress in increasing participation rates among Black men in more than a quarter of a century. Further, more than two-thirds of Black men who start college leave before earning their bachelor’s degree (U.S. Department of Education, 2006), representing the lowest degree-completion rate among both sexes and all racial groups. Thus, giving attention to the experiences of African American males in college is an important and necessary research goal.

Latino males are unevenly represented in higher education as well, and many face a number of serious challenges in college environments. It is true that a larger proportion of Hispanics enroll in college than 20 years ago. Yet less than a quarter (23.2%) of Latino postsecondary students graduate with a four-year degree within 10 years of high school graduation—less than half the rate of White students (47.3%) (Swail, Cabrera, Lee, & Williams, 2005). Hispanics are also disproportionately enrolled in two-year colleges (Warburton et al., 2001). Recent data indicate that fewer Hispanics hold managerial or professional positions than White men and women (Swail, Bugarin, & Nunez, 2005), many Hispanics struggle to overcome language barriers in school (Tornatsky, Cutler, & Lee, 2002), and many lack adequate preparation for the academic demands of college (Tierney, Corwin, & Colyar, 2005).

Without support, both African American and Latino males may continue to face obstacles that inhibit their sense of belonging on campus (Strayhorn, 2008b, 2008e) and compromise their academic achievement. More information is needed to understand how students’ background traits, academic preparation for college, and sociocultural capital converge to influence

educational outcomes among African American and Latino males. This is the gap addressed by my study.

PURPOSE

The purpose of this study was to measure the influence of background traits, academic preparation for college, and sociocultural capital on academic achievement in college, as measured by college grade point average (GPA). The following research questions guided my analysis:

1. What is the relationship between academic achievement and students' background traits (e.g., SES), academic preparation for college, and forms of social/cultural capital for a nationally representative sample of African American men?

2. What is the relationship between academic achievement and students' background traits (e.g., SES), academic preparation for college, and forms of social/cultural capital for a nationally representative sample of Latino men?

Previous work on this topic has been limited in three ways. First, most prior work can be appropriately described as theoretical explanations about how social and cultural capital is accumulated over time (Coleman, 1988). For example, scholars have studied how students' interactions with institutional agents (e.g., teachers, counselors, and peers) aid students in navigating unfamiliar environments (Moschetti & Hudley, 2008; Stanton-Salazar, 1997). Second, the few studies exploring the impact of capital on educational outcomes have focused on achievement in high school (e.g., Singh, Granville, & Dika, 2002) or have employed qualitative methods of data collection and analysis (e.g., Ceja, 2006), which, while appropriate given the study's design and focus, yield findings that are not generalizable. This study expands that body of knowledge by focusing on the relationship between sociocultural capital and academic achievement for African American and Latino collegiate males using quantitative methods and nationally representative survey data.

The third limitation is that previous work on social and cultural capital treats minority students as a homogenous group whose experiences and capital reservoirs are uniformly deficient and decidedly different from that of majority students (e.g., Coleman, 1988; De Jong & Madamba, 2001). However, recent research has highlighted contradictions to the structuralist view by distinguishing high-achieving, low-achieving, and "model" minorities (e.g., Fries-Britt, 1997; Gándara, 1982; Lee, 1996; Strayhorn, 2008f). My study departs from the typical structuralist approach, which treats minority men as a monolithic entity, and investigates *how* and *to what extent* they differ in terms of social and cultural capital.

METHOD

Data Source

Data for this study were drawn from the National Center for Education Statistics' (NCES) National Education Longitudinal Study (NELS:88/00) sponsored by the U.S. Department of Education. The NELS:88 database employed a two-stage stratified probability design to obtain a nationally representative sample of eighth-grade schools and students. In the first stage, 1,032 U.S. schools were selected from the domain of schools with eighth-grade students. In the second stage, approximately 25 students were randomly selected from eighth-grade cohorts at each school. The database provides extensive information on a nationally representative sample of individuals who were in the eighth grade in 1988, ranging from background characteristics to school-related outcomes such as achievement test scores and grades. The NELS:88/00 tracks approximately 15,000 eighth graders over time with follow-ups in 1990 (10th grade), 1992 (12th grade), 1994 (two years out of high school), and 2000 (eight years out of high school) (Ingels et al., 1990; Owings, 1996).

Sample

From the NELS:88 sampling criteria, I identified 24,599 students who participated in the base-year survey. Approximately 12,150 individuals responded to all three follow-up surveys (1990, 1992, and 2000). Seventy percent of the national sample was White, 13% Hispanic, 9% African American, 7% Asian/Pacific Islander, and 1% American Indian/Alaskan Native. My analysis focuses on African American and Latino males only. I further restricted the analytic sample to students enrolled at four-year colleges for whom complete data were available on their academic achievement.

To correct for the oversampling of certain groups, nonresponse bias, and sampling error while minimizing the effects of large sample sizes on standard errors and significance tests, I applied sampling weights to each case which is equal to the inverse of the probability of selection as is consonant with analyses of large-scale data (Strayhorn, 2009; Thomas & Heck, 2001). Thus, after applying the panel weight, the weighted analytic sample consisted of 171,936 African American males and 140,222 Latino males. The total number of unweighted cases was well within recommended sample sizes for multivariate analyses (Tabachnick & Fidell, 1996).

Variables

The dependent variable in this study was academic achievement as measured by undergraduate (UG) grades or grade point average (GPA), drawn from the postsecondary transcript study (PETS) collected as part of NELS:88/00. For the purposes of this analysis, I recoded this variable

to exclude individuals who attended colleges that awarded pass/fail grades only and those who attended schools that did not award grades. Specifically, I measured grades on a seven-point scale ranging from 1 (“mostly D’s or below, less than 1.25”) to 7 (“mostly A’s, 3.75-4.0”).

The independent variables consisted of three sets of predictors. The first set (background traits) included pre-college academic ability as measured by the student’s high school achievement in mathematics and science ($\alpha = 0.84$); scores ranged from 0 to 100. The second set (pre-college academic preparation) included whether respondents participated in a precollege outreach program (e.g., Talent Search, Upward Bound [reverse coded]); thus, scores ranged from 1 (“no participation”) to 2 (“participation”).

The third set included measures of social and cultural capital including socioeconomic status, parents’ highest level of education (two items), whether respondent had discussions with parent(s) about college (scores ranged from 1 [“never”] to 3 [“often”]), parental expectations (two items), and involvement in selected collegiate clubs and organizations (three items). Parents’ level of education was measured by items placed on scales ranging from 1 (“did not finish high school”) to 7 (“Ph.D., M.D., etc.”).

Parental expectations were measured by two items. Survey items asked respondents “how far in school respondent’s father/mother wants respondent to go.” Response options ranged along a six-point scale from 1 (“less than high school”) to 6 (“education beyond bachelor’s degree; graduate school”). Three dichotomous variables (scores ranged from 1 [“yes”] to 2 [“no”]) indicated whether the respondent participated in student government, social clubs and fraternities, and community volunteer activities in college. Such activities have been shown to yield social, cultural, or academic capital during college (Berger, Milem, & Paulsen, 1998; Harper, 2006; Walpole, 2003).

Data Analysis

I analyzed data in several stages to investigate the research questions. First, I computed descriptive statistics to characterize the sample and to differentiate African American males from Latino males. Second, I used hierarchical linear regression techniques to measure the influence of independent variables on academic achievement as measured by undergraduate GPA. I entered independent variables into the regression model proceeding from background traits and pre-college preparation variables to measures of social and cultural capital, as generally hypothesized by college impact models. This statistical design permitted the use of a rigorous set of controls and isolated the net effect of individual sets of predictors on the dependent variable under study. It is important to note that, although the dependent variable is measured using an ordinal-like scale, many ordinal responses, like this study’s outcome variable, possess a near-interval scale that offers a means for treating them as though they were interval data (Henkel, 1975;

Labovitz, 1970); thus, precedent for this statistical approach (i.e., OLS regression) has been set by others. Lastly, I conducted significance tests to compare unstandardized regression coefficients between groups as recommended by Cohen and Cohen (1983).

I conducted all analyses with weighted samples, corrected for the unweighted sample size to obtain correct standard errors (Thomas & Heck, 2001). Additionally, I used specialized data analysis software (*AM* beta version 0.06.03), developed by the American Institutes for Research (2002), to correct for design effects that are typically associated with the nested nature (i.e., students within classes, classes within schools) of large-scale survey data. Despite these adjustments, several limitations should be noted before presenting the results from this analysis.

LIMITATIONS

This study, like all others, is limited in several respects. For instance, this analysis relied on self-reported data (e.g., parents' education, involvement). Despite some challenges to their internal validity, self-reports are widely used in educational research and are generally considered valid if the information requested is known by the respondent, if the questions are phrased clearly, and if students deem the question worthy of a response (Pace, 1985). To the extent that these conditions are not met, the study's estimates may be biased.

Second, social and cultural capital are complex theoretical constructs and, thus, are not only difficult to measure but are almost impossible to observe (Bollen, 2002). Consequently, the measures employed in this study may only partially reflect the complexity of these constructs. Additionally, the database did not permit the examination of all forms of sociocultural capital. Had different measures been used, the results might differ in unknown ways. The study's findings should be interpreted with these cautions in mind.

Lastly, given the complex nature of NELS data, several statistical adjustments (e.g., reverse-coding, weighting) are required by secondary data analysts. To the extent that these adjustments alter statistical relationships, parameter estimates may be biased.

While useful to discuss, these issues do not limit the importance of this analysis. The next section presents the study's findings followed by a discussion that contextualizes this study with previous research.

RESULTS

African American males differed from their Latino male counterparts in a number of significant ways. Black men earned lower grades in college ($M = 4.68$, $SD = 0.99$), on average, compared to Latino males ($M = 4.92$, $SD =$

1.10). When I conducted independent-sample t tests to evaluate whether these differences were statistically significant, the results indicated statistical significance, $t(175913.65) = 43.69, p < 0.01$. In addition, Black men had lower levels of academic achievement prior to college ($M = 90.67, SD = 14.72$) than Latino males ($M = 95.42, SD = 16.40$); again, observed differences were statistically significant $t(164261) = 52.89, p < 0.01$. Latino males reported having slightly more frequent discussions about college with their parents than Black men ($M = 2.13, SD = 0.76$ and $M = 2.09, SD = 0.66$, respectively). Table 1 presents a summary of the independent and dependent variables used in this analysis for each group.

Hierarchical linear regression tests were conducted to measure the relationship between academic achievement in college and three sets of independent predictors including prior achievement, preparation for college, and measures of sociocultural capital among African American males in the sample. Results suggest a statistically significant relationship between independent factors and African American males' undergraduate GPA, $F(11, 26391) = 531.77, p < 0.01$. The multiple correlation was 0.43, indicating that approximately 18% of the variance in UG grades was accounted for by the linear combination of explanatory variables. For example, African American males with higher levels of achievement in math and science in high school tended to have higher undergraduate GPAs.

Interestingly, model change statistics indicate that the final model (including measures of social and cultural capital) is a significant improvement over the null model, ($R^2 = 0.14$), $F(9, 26390) = 509.26, p < 0.01$. Adding measures of social and cultural capital to the regression equation explains 14% of the variance in the dependent variable *over and above* that explained by background traits, high school achievement, and academic preparation for college, indicating that sociocultural capital-accruing activities *in college* explain more of the variability in Black male undergraduates' GPA than pre-college factors. Of all independent variables, SES was most strongly related to UG grades, followed by high school achievement. Supporting this conclusion is the strength of the zero-order correlation between SES and UG grades, which was 0.29, $p < 0.01$, as well as the comparable correlation partialling out the effects of the other predictors, which was 0.18, $p < 0.01$. Table 2 displays the results of the hierarchical regression analysis for Black men.

I then conducted hierarchical linear regression analyses to measure the relationship between academic achievement in college and sets of independent predictors including prior achievement, preparation for college, and measures of sociocultural capital among Latino males in the sample. Results suggest a statistically significant relationship between independent factors and Latino males' undergraduate GPA, $F(11, 27591) = 365.30, p < 0.01$. The multiple correlation was 0.36, indicating that approximately 13%

TABLE 1
**DESCRIPTIVE STATISTICS FOR ALL INDEPENDENT
 AND DEPENDENT VARIABLES**

Variable	Black Men		Latino Men	
	M	SD	M	SD
UG GPA	4.68	0.99	4.92	1.10
Prior achievement	90.67	14.72	95.42	16.40
Precollege program	1.78	0.41	1.96	0.20
SES	- 0.38	0.73	- 0.54	0.76
Dad's education	2.73	1.61	2.51	1.78
Mom's education	2.93	1.49	2.43	1.57
Discussed college	2.09	0.66	2.13	0.76
Dad's expectations	4.68	1.31	4.70	1.27
Mom's expectations	4.90	1.26	4.82	1.22
Student government	1.92	0.28	1.94	0.24
Social clubs/frats	1.84	0.37	1.79	0.41
Volunteer	1.82	0.39	1.75	0.44

Note: UG GPA = undergraduate grade point average. SES = socioeconomic status.

TABLE 2
**UNDERGRADUATE GPA REGRESSED ON SIGNIFICANT
 EXPLANATORY VARIABLES, AFRICAN AMERICAN MALES**

Variable	B	↓	t
Constant	3.99		63.25
Prior achievement	0.00	0.04	6.02
Precollege program	0.19	0.08	12.64
SES	0.42	0.31	37.00
Dad's education	0.04	-0.06	7.90
Mom's education	0.02	-0.02	2.97
Discussed college	0.08	0.05	7.28
Dad's expectations	0.08	0.08	8.88
Mom's expectations	0.06	0.06	6.44
Student government	-0.46	-0.17	-22.39
Social clubs/frats	0.26	0.11	18.67
Volunteer	-0.03	-0.01	- 2.03

R = 0.43

R² = 0.18

Adj. R² = 0.15

Note: SES = socioeconomic status.

of the variance in UG grades was accounted for by the linear combination of explanatory variables. For example, Latino males with higher levels of achievement in math and science in high school tended to have higher undergraduate GPAs—like their African American male counterparts.

Adding measures of social and cultural capital to the regression equation explains 6% of the variance in the dependent variable *over and above* that explained by prior achievement and academic preparation for college, ($R^2 = 0.06$), $F(9, 27591) = 201.34$, $p < 0.01$. Indeed, of all independent variables, high school achievement was most strongly related to UG grades. Supporting this conclusion is the strength of the zero-order correlation between these variables, which was 0.25, $p < 0.01$, as well as the comparable correlation partialling out the effects of other predictors, which was 0.19, $p < 0.01$. Table 3 presents a summary of the hierarchical regression analyses for Latino men.

Following the recommendations of Cohen and Cohen (1983), I conducted follow-up analyses to compare unstandardized regression coefficients between groups—that is, to test whether slopes differed significantly between African American and Latino men across the study's main independent variables. Cross-product terms (e.g., race \times SES) were added to a regression model including all predictors, where the intercept was equal to the intercept of the reference group (in this case, Latino males) and the parameter estimate for race reflected the difference between the intercepts for each group when analyzed separately ($b_{AA} - b_L$). The regression coefficient for African American men differed significantly from the coefficient for Latino men on four variables: prior achievement ($t = -9.63$, $p < 0.01$), SES ($t = 17.50$, $p < 0.01$), pre-college outreach program ($t = -4.755$, $p < 0.05$), and mother's expectations ($t = 13.09$, $p < 0.05$). In other words, these results provide additional evidence that the unstandardized regression coefficients differed significantly between African American and Latino men. Both achievement in high school and participation in a pre-college program have a greater effect on UG grades for Latino men than African American men. On the other hand, SES and mother's expectations have a greater effect on UG grades for African American men than their Latino counterparts.

According to tolerance statistics, multicollinearity was not a problem for this investigation as the correlations between the independent and dependent variables are moderate to trivial or statistically non-significant.

DISCUSSION

The purpose of this study was to measure the influence of background traits, academic preparation for college, and sociocultural capital on academic achievement in college, as measured by the student's undergraduate GPA, using nationally representative samples of African American and Latino

TABLE 3
UNDERGRADUATE GPA REGRESSED ON SIGNIFICANT
EXPLANATORY VARIABLES, LATINO MALES

<i>Variable</i>	<i>B</i>	\uparrow	<i>t</i>
Constant	3.32		32.47
Prior achievement	0.01	0.21	33.35
Precollege program	0.29	0.06	9.51
SES	0.00	0.00	-0.04+
Dad's education	0.02	0.05	5.04
Mom's education	0.06	0.10	12.24
Discussed college	0.17	0.11	17.53
Dad's expectations	0.15	0.15	12.93
Mom's expectations	-0.14	-0.14	-12.41
Student government	-0.61	-0.13	-23.36
Social clubs/frats	-0.03	-0.02	-2.36
Volunteer	0.20	0.09	14.62+

R = 0.36

*R*² = 0.13

Adj. *R*² = 0.09

Note: SES = socioeconomic status.

+ *p* > 0.05, not statistically significant.

male collegians. I analyzed longitudinal data from the National Education Longitudinal Study (NELS:88/00) using hierarchical linear regressions that permitted the introduction of statistical controls and allowed me to isolate the net effect of social and cultural capital measures on academic achievement. The results of this study suggest four important conclusions.

First, the findings provide empirical support for the hypothesis that students' social and cultural capital is related to academic achievement in college (Hagedorn & Tierney, 2002; Warburton, Bugarin, & Nunez, 2001). Several measures of the student's social and cultural capital (e.g., SES, discussions with parents, involvement) were significant predictors of his undergraduate GPA. Social and cultural capital variables added significantly to the model's predictive ability for Black and Latino men (14% and 6%, respectively). Findings suggest not only that sociocultural capital plays a role in determining a student's academic achievement in college but that this effect persists regardless of his pre-college experiences and preparation.

Disaggregating Adelman's (1999) general conclusion, I found that academic preparation was the most significant predictor of achievement in college for Latino males specifically. However, this was not true for African American males. Instead, African American males' SES was the most power-

ful predictor of achievement in college. Contrary to monolithic perspectives, however, that assume all minority students are the same, SES had no effect on grades for Latino males. In this study, African American males from higher SES backgrounds tended to have higher grades in college compared to their low-SES same-race male peers, all other things being equal.

Prior research has tied SES to other variables that are closely related to achievement such as access to reading materials and information about college, time spent studying, opportunity to learn in quality schools (Oakes, 1984), and even campus involvement (Walpole, 2003). Others have shown that high-SES students have access to high-status or socially valued cultural capital that is often advantaged and recognized in educational contexts (Hagedorn & Tierney, 2002; Walberg, 1984). To the extent that this relationship holds true, African American males from higher SES families may be advantaged by the “stock” in their social and cultural capital reservoirs, while Black males from low-SES families are at risk for failure in college because the sociocultural capital that they inherit (e.g., caring, community, giving back) is less valued and often unacknowledged or underprivileged in school settings by teachers and counselors (Bourdieu, 1977; Villalpando & Solórzano, 2005).

In addition, African American males seemed to benefit significantly from their involvement in college activities such as student government and volunteer activities. These findings are consistent with earlier research findings on the importance of involvement/engagement in college (Astin, 1984, 1993; Kuh, Schuh, et al., 1991) and the involvement experiences of minorities (Sutton & Terrell, 1997), especially African American men (Harper, 2006; Strayhorn, 2006, 2008a). Previous studies have shown that African American students tend to be involved in majority (e.g., student government) and minority student organizations (e.g., historically Black fraternities, Black student unions) which develop their practical skills and also enhance such affective abilities as self-esteem, independence, and the ability to work on a team (Harper, 2006; Rooney, 1985; Sutton & Terrell). My results provide empirical evidence that such involvement (e.g., student government, volunteerism) also positively affects Black males’ academic achievement in college. Such information may prove instructive to college student educators and academic administrators who are charged with increasing student success and those who work directly with African American males. Encouraging Black men to become involved in campus activities may be one way to raise their level of academic achievement.

Not all involvement experiences were associated with higher grades in college. For instance, Black male collegians involved in fraternities earned lower grades, on average, than their same-race male peers who did not participate in fraternities. Results are consistent with previous research (e.g., Pike & Askew, 1990). There are at least two plausible explanations for this

finding. First, participating in fraternities may aid the social integration/adjustment of Black males by providing a critical mass of “brothers” upon whom they can rely for support, yet do little to facilitate academic integration. In fact, some evidence exists that involvement in fraternities may limit the time available for study or otherwise make it difficult to balance schoolwork with fraternity life (Pascarella & Terenzini, 1991; Pike & Askew, 1990). An alternative explanation exists, especially given the correlational design of the present study. That is, Black men who do not perform well academically may be more likely to participate in fraternities as a way of adjusting socially, accessing academic tutoring, and acquiring the support necessary for success in college (Harper, 2006).

Second, participation in pre-college outreach programs (e.g., Talent Search, Upward Bound) was associated with higher grades in college for both Black and Latino men. This is good news for those who work in such federally funded programs. In addition, the findings may have implications for those who work in similar programs such as GEAR UP. Although African American and Latino males who participated in pre-college outreach programs tended to have higher grades in college, the effect size was greater for Latino than African American males. Future research might explore this issue in depth to understand specific elements of such programs that seem to confer differential advantages to male students of Spanish descent.

Prior research indicates that precollege outreach programs differ in their offerings (Swail & Perna, 2002); some provide supplemental instruction in specific subject areas like math and science while others focus on developing students’ self-esteem and practical skills such as career and financial planning. Therefore, it seems reasonable to assume that program effects may differ by program type; future research should attempt to disaggregate programs by type to measure the influence of academic and non-academic pre-college programs or short-term (e.g., five weeks) and long-term (e.g., year-long) programs on student outcomes. Although a large number of programs exist, Coles (1993) has observed that “it is surprising how little empirical data exists about the program effectiveness in terms of college participation rates or strategies that make the most difference” (p. 25).

Third, African American and Latino males who had college discussions with their parents also tended to earn higher grades in college. Discussions about college were more important for Latino males, but both samples benefited from such conversations. It may be the case that African American and Latino males who talk about college with their parents have more realistic expectations about higher education and, as a result, are better prepared for the academic and social demands of college which allows them to manage those challenges successfully while earning or maintaining good grades. Early discussions can often provide a chance for students to gather information about college options, participate in pre-college experiences and visitations,

and make meaning of their parents' expectations for them with respect to education (Freeman, 2005; Hossler, Braxton, & Coopersmith, 1989; McDonough, 1997). In addition, having such discussions may imply parental encouragement of students' postsecondary goals which affects their academic performance; prior research has shown that parental support is particularly important for racial/ethnic minorities (Fehrmann, Keith, & Reimers, 1987; Hossler, Schmit, & Vesper, 1999; Jun & Colyar, 2002), especially in terms of degree completion (Horn & Chen, 1998). This study found similar results in terms of undergraduate GPA among Black and Latino males.

Finally, Bourdieu (1977) claimed that low economic capital increases the relevance of social and cultural capital to one's success. My findings showed that sociocultural capital can have a compensatory effect on low-SES African American and Latino males as well, a finding supported by other research on the importance of cultural capital to the upwardly mobile or historically disadvantaged (DiMaggio, 1982; DiMaggio & Mohr, 1985). To illustrate, the predicted grades of low-SES African American and Latino men would be 3.57 and 3.32, respectively, controlling for all other variables in the model, whereas the predicted grades of low-SES men with high levels of social and cultural capital (that is, maximum scores on all predictors in third block) would exceed 4.85. And although prior research points out the lack of conversations with parents about college (Lareau, 2003) and involvement in clubs (e.g., Cuyjet & Associates, 2006) among low-SES and racial minority students, my research suggests that such activities may help Black and Latino male collegians overcome academic and socioeconomic disadvantages.

IMPLICATIONS AND CONCLUSION

This study has significance for future research. Prior research has linked undergraduate academic achievement to enrollment in graduate school (Ethington & Smart, 1986; Malaney & Isaac, 1988; Strayhorn, 2005). I compared the influence of sociocultural capital on academic achievement for African American men to that of Latino men. The same comparison may be particularly illuminating for Black and Latino men in graduate school. Future research might employ the statistical design described herein to study a national sample of Black and Latino males at the post-baccalaureate level.

Previous research has found a significant positive relationship between student involvement in college activities and their cognitive development (Astin, 1984, 1993; Ethington & Smart, 1986). Results from this study show that students' involvement in opportunities for capital accumulation (e.g., student government, community service) affects achievement, although the impact differs between African American and Latino males. Future research may examine this issue more closely by providing detailed information on the involvement experiences of collegiate men using qualitative methods for

data collection such as one-on-one interviews, focus groups, and journals (Carnaghi, 1992; Krueger & Casey, 2000).

Understanding the degree to which various factors influence academic achievement is important, as research has consistently found that academic performance among minority students plays a powerful role in departure decisions (Nora, Cabrera, Hagedorn, & Pascarella, 1996).

More comparative research on the collegiate experiences of Black and Latino men also is warranted. Although a body of knowledge has accumulated on the effects of race at other points in the educational pipeline, scholars have not focused enough attention on the effects of race on college students at the undergraduate and graduate levels. Prior studies tend to combine all non-White students as if they represent a monolithic group whose members are more similar than different. Results from this study identify important distinctions between Black and Latino men; thus, future researchers should continue analyzing each group separately unless their question requires a different approach. That is, educational researchers should assume that the structural and cultural constraints that continually yield educational disparities for racial/ethnic minorities in higher education are not necessarily the same for all groups; running separate models for Black, Latino, Asian, and Native American students is likely to lead to conservative estimates of net effects, which can be compared across regression models (Cohen & Cohen, 1983). Additionally, future research efforts must strive to advance a more nuanced understanding of within-group heterogeneity. Scholars might examine the role that sociocultural capital plays in the success of Black (e.g., West Indian, Haitian, Jamaican) and Latino (e.g., Mexican, Puerto Rican, Cuban) subgroups.

It may also be important to investigate the experiences of academically underprepared, low-SES minority men since the multivariate analysis indicates that they tend to earn lower GPAs in college. Similarly, future research should investigate different variables that may contribute to GPA and investigate factors that influence the academic achievement of these two populations at minority-serving institutions (MSIs) and community colleges. The latter seem critically important as a large majority of Black and Latino men attend MSIs and almost 50% begin their postsecondary careers at two-year community colleges (U.S. Department of Education, 2006).

Finally, the primary finding of this study—that social and cultural capital influences the academic achievement of African American and Latino male collegians—points to the importance of using capital theories in future research to augment what is included in traditional college impact models. Using or expanding previous models (e.g., Perna, 2004; Strayhorn, 2008d), future research might attempt to measure the value added of including sociocultural capital factors in predictive models, as well as developing new measures from preexisting and institutional databases.

Findings from this study should also prove useful for several constituencies. Policymakers and other key decision-makers may find the results of this study particularly useful. For example, this study underscores how prior achievement, participation in pre-college outreach programs, and measures of sociocultural capital affect achievement in college among African American and Latino males. Educational policymakers might consider these findings when formulating state and federal policies with respect to teacher preparation, K-12 curricula, school funding, and student achievement. Given the impact of pre-K-12 achievement on grades in college, it is important that all students have adequate opportunities to learn from highly qualified teachers (Oakes, 1985; Obidah, Buenavista, Gildersleeve, Kim, & Marsh, 2007), through rigorous curricula, and across a variety of subjects including math and science, to name a few. Policymakers might also consult the results of this study to determine where additional attention and interventions may be needed. For instance, although prior achievement was positively associated with college grades for both groups, Black men tended to perform lower than Latino men in math/science. This pattern may suggest a possible target for policy intervention; research has shown that supplemental instruction, extra coursework, and early exposure to math and science can be effective in raising students' performance in these critical content areas (Singh, Granville, & Dika, 2002).

Student affairs administrators, especially those who work in student activities, may benefit from these findings. The results of this study provide administrators with data about the impact of engagement in campus activities—such as participation in student government and fraternities—on academic achievement for Black and Latino male collegians. Student affairs administrators who work in student activities might use the results to justify the implementation of targeted recruitment strategies that have particular appeal to minority males. In addition, these results may provide evidence that can be used to persuade other Black and Latino men to participate in clubs and organizations.

The results of this study might provide suggestions to the parents of Black and Latino boys about the importance of discussing college and college plans with their sons. For example, this study provided empirical evidence that supports the positive impact of such discussions on the subsequent academic achievement of Black and Latino males in college. Parents are encouraged to create opportunities to discuss college options with their sons; this is a good opportunity for parents to share their expectations as well as nurturing the college-going aspirations of Black and Latino males. Importantly, parents are encouraged to allow their sons “air time” to think aloud about their educational aspirations. Parents should grant students the freedom to explore various options as if they have control over their

educational destinations. Still, parents must realize that it is they who have the greatest power to facilitate the academic achievement of their children (Mandara & Murray, 2007), not schools and institutions.

Lastly, like Walpole (2008), I found that low-SES African American males have lower college grades than their high-SES, same-race male peers. The study's results emphasize the need to study "the diversity among African Americans that could provide a deeper understanding of their educational processes and attainment" (Walpole, p. 238). Specifically, results highlight the need to focus on social class segmentation within the African American community in general and among Black men in particular. These results are significant because relatively little is known about African American students' collegiate experiences and outcomes (Walpole) and even less is known about social class differentiation among Blacks.

Also, the study's findings may be particularly important to policymakers given recent legal challenges to affirmative action that not only limit the consideration of race in higher education decision-making but also call for a more "narrowly tailored" approach that may consider race as one factor along with gender, academic preparation, and class. Results from this analysis suggest that social and cultural capital factors can be considered as leveling the playing field, as it were, between African American and Latino males, high- and low-SES students, the highly prepared and less well-prepared, to name a few categories. By encouraging participation in pre-college outreach programs, facilitating conversations about college, nurturing parents' expectations of their sons, and promoting engagement in clubs and activities among Black and Latino male undergraduates, we may effectively raise their academic achievement in college. Armed with this information and that of future research, educators will gain insights into how to help students who live where race (i.e., Latino or Black) and gender (i.e., male) collide.

REFERENCES

- Adelman, C. (1999). *Answers in the toolbox: Academic intensity, attendance patterns, and bachelor's degree attainment*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.
- Allen, W. (1992). The color of success: African American college student outcomes at predominantly White and historically Black public colleges and universities. *Harvard Educational Review*, 62, 26-44.
- American Institutes for Research. (2002). *AM software* (version 0.06.03 beta). Washington, DC: Author.
- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, 25, 297-308.
- Astin, A. W. (1993). *What matters in college: Four critical years revisited*. San Francisco: Jossey-Bass.

- Bailey, D. F., & Moore, J. L., III. (2004). Emotional isolation, depression, and suicide among African American men: Reasons for concern. In C. Rabin (Ed.), *Linking lives across borders: Gender-sensitive practice in international perspective* (pp. 186–207). Pacific Grove, CA: Brooks/Cole.
- Berger, J. B., & Milem, J. F. (1999). The role of student involvement and perceptions of integration in a causal model of student persistence. *Research in Higher Education, 40*(6), 641–664.
- Berger, J. B., Milem, J. F., & Paulsen, M. B. (1998, November). *The exploration of "habitus" as a multi-dimensional construct*. Paper presented at the annual meeting of the Association for the Study of Higher Education, Miami, FL.
- Bollen, K. (2002). Latent variables in psychology and the social sciences. *Annual Review of Psychology, 53*, 605–634.
- Bourdieu, P. (1977). Cultural reproduction and social reproduction. In J. Karabel & A. Halsey (Eds.), *Power and ideology in education* (pp. 487–510). New York: Oxford University Press.
- Braxton, J. M. (Ed.). (2000). *Reworking the departure puzzle*. Nashville, TN: Vanderbilt University Press.
- Cabrera, A. F., Nora, A., Terenzini, P. T., Pascarella, E. T., & Hagedorn, L. S. (1999). Campus racial climate and the adjustment of students to college. *Journal of Higher Education, 70*(2), 134–160.
- Carnaghi, J. E. (1992). Focus groups: Teachable and educational moments for all involved. In F. K. Stage (Ed.), *Diverse methods for research and assessment of college students* (pp. 105–122). Washington, DC: American College Personnel Association.
- Ceja, M. (2006). Understanding the role of parents and siblings as information sources in the college choice process of Chicana students. *Journal of College Student Development, 47*(1), 87–104.
- Choy, S. P. (2000). *Low-income students: Who they are and how they pay for their education*. Washington, DC: National Center for Education Statistics.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology, 94* Supplement, 95–120.
- Coles, A. (1993). *School to college transition programs for low income and minority youth*. Unpublished manuscript.
- Cooley, M. R., Cornell, D. G., & Lee, C. (1991). Peer acceptance and self concept of Black students in a summer gifted program. *Journal for the Education of the Gifted, 14*(2), 166–177.
- Cooper, D. L., Healy, M. A., & Simpson, J. B. (1994). Student development through involvement: Specific changes over time. *Journal of College Student Development, 35*, 98–102.
- Cooper, H. (1989). *Homework*. White Plains, NY: Longman.
- Cruce, T. M., Wolniak, G. C., Seifert, T. A., & Pascarella, E. T. (2006). Impacts of good practices on cognitive development, learning orientations, and graduate degree plans during the first year of college. *Journal of College Student Development, 47*(4), 365–383.

- Cuyjet, M. J., & Associates (Eds.). (2006). *African American men in college*. San Francisco: Jossey-Bass.
- De Jong, G. F., & Madamba, A. B. (2001). A double disadvantage? Minority group, immigrant status, and underemployment in the United States. *Social Science Quarterly*, 82(1), 117–130.
- DiMaggio, P. (1982, April). Cultural capital and school success: The impact of status culture participation on the grades of US high school students. *American Sociological Review*, 47, 180–201.
- DiMaggio, P., & Mohr, J. (1985). Cultural capital, educational attainment, and marital selection. *American Journal of Sociology*, 90, 1231–1261.
- Eimers, M. T., & Pike, G. R. (1997). Minority and nonminority adjustment to college: Differences or similarities? *Research in Higher Education*, 38(1), 77–97.
- Ethington, C. A., & Smart, J. C. (1986). Persistence to graduate education. *Research in Higher Education*, 24, 287–303.
- Fehrmann, P. G., Keith, T. Z., & Reimers, T. M. (1987). Home influence on school learning: Direct and indirect effects of parental involvement on high school grades. *Journal of Educational Research*, 80(6), 330–337.
- Ferguson, A. A. (2000). *Bad boys: Public schools in the making of Black male masculinity*. Ann Arbor: The University of Michigan Press.
- Fleming, J. (1984). *Blacks in college: A comparative study of students' success in Black and White institutions*. San Francisco: Jossey-Bass.
- Freeman, K. (2005). *African Americans and college choice: The influence of family and school*. Albany: State University of New York Press.
- Fries-Britt, S. L. (1997). Identifying and supporting gifted African American men. In M. J. Cuyjet (Ed.), *Helping African American men succeed in college* (pp. 65–78). San Francisco: Jossey-Bass.
- Gándara, P. (1982). Passing through the eye of the needle: High achieving Chicanas. *Hispanic Journal of Behavioral Sciences*, 4, 167–179.
- Gibbs, J. T. (Ed.). (1988). *Young, Black, and male in America: An endangered species*. Dover, MA: Auburn House.
- Gloria, A. M., Castellanos, J., Lopez, A. G., & Rosales, R. (2005). An examination of the academic nonpersistence decisions of Latino undergraduates. *Hispanic Journal of Behavioral Sciences*, 27(2), 202–223.
- Hagedorn, L. S., & Tierney, W. G. (2002). Cultural capital and the struggle for educational equity. In W. G. Tierney & L. S. Hagedorn (Eds.), *Increasing access to college: Extending possibilities for all students* (pp. 1–11). Albany: State University of New York Press.
- Harper, S. R. (2006). Enhancing African American male student outcomes through leadership and active involvement. In M. J. Cuyjet & Associates (Eds.), *African American men in college* (pp. 68–94). San Francisco: Jossey-Bass.
- Henkel, R. E. (1975). Part-whole correlations and the treatment of ordinal and quasi-interval data as interval data. *Pacific Sociological Review*, 18(1), 3–26.
- Hoffman, J. L., & Lowitzki, K. E. (2005). Predicting college success with high school grades and test scores: Limitations for minority students. *Review of Higher Education*, 28(4), 455–474.
- hooks, b. (2004). *We real cool: Black men and masculinity*. New York: Routledge.

- Hopkins, R. (1997). *Educating Black males: Critical lessons in schooling, community, and power*. Albany: State University of New York Press.
- Horn, L. J., & Chen, X. (1998). *Toward resiliency: At-risk students who make it to college*. Washington, DC: U.S. Department of Educational, Office of Educational Research and Improvement.
- Hossler, D., Braxton, J. M., & Coopersmith, G. (1989). Understanding student college choice. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research* (Vol. 5, pp. 231–288). New York: Agathon Press.
- Hossler, D., Schmit, J. L., & Vesper, N. (1999). *Going to college: How social, economic, and educational factors influence the decisions students make*. Baltimore: Johns Hopkins University Press.
- Hrabowski, F. A., III, Maton, K. I., & Greif, G. L. (1998). *Beating the odds: Raising academically successful African American males*. New York: Oxford University Press.
- Hurtado, S., Carter, D. F., & Spuler, A. (1996). Latino student transition to college: Assessing difficulties and factors in successful college adjustment. *Research in Higher Education*, 37, 135–157.
- Hyers, A. D., & Joslin, M. N. (1998). The first-year seminar as a predictor of academic achievement and persistence. *Journal of First-Year Experience and Students in Transition*, 10(1), 7–30.
- Ingels, S., Abraham, S. Y., Rasinski, K. A., Karr, R., Spencer, B., & Frankel, M. (1990). *NELS:88 base-year data file user's manual*. Washington, DC: U.S. Department of Education.
- Jun, A., & Colyar, J. E. (2002). Parental guidance suggested: Family involvement in college preparation programs. In W. G. Tierney & L. S. Hagedorn (Eds.), *Increasing access to college: Extending possibilities for all students* (pp. 195–215). Albany: State University of New York Press.
- Kao, G., & Thompson, J. S. (2003). Racial and ethnic stratification in educational achievement and attainment. *Annual Review of Sociology*, 29, 417–442.
- Keith, T. Z. (1982). Time spent on homework and high school grades: A large-sample path analysis. *Journal of Educational Psychology*, 74, 248–253.
- Keith, T. Z., & Page, E. B. (1985a). Do Catholic high schools improve minority student achievement? *American Educational Research Journal*, 22(3), 337–349.
- Keith, T. Z., & Page, E. B. (1985b). Homework works at school: National evidence for policy changes. *School Psychology Review*, 14, 351–359.
- Krueger, R. A., & Casey, M. A. (2000). *Focus groups: A practical guide for applied research* (3rd ed.). Thousand Oaks, CA: Sage.
- Kuh, G. D., Palmer, M., & Kish, K. (2003). The value of educationally purposeful out-of-class experiences. In T. L. Skipper & R. Argo (Eds.), *Involvement in campus activities and retention of first-year college students* (pp. 19–34). Columbia: University of South Carolina, National Resource Center for the First-Year Experience and Students in Transition.
- Kuh, G. D., Schuh, J. H., Whitt, E. J., & Associates. (1991). *Involving colleges: Successful approaches to fostering student learning and development outside the classroom*. San Francisco: Jossey-Bass.
- Labovitz, S. (1970). The assignment of numbers to rank order categories. *American Sociological Review*, 35, 515–524.

- Lareau, A. (2003). *Unequal childhoods: Class, race, and family life*. Berkeley: University of California Press.
- Lee, S. J. (1996). *Unraveling the "model minority" stereotype: Listening to Asian American youth*. New York: Teachers College Press.
- Majors, R., & Billson, J. (1992). *Cool pose: The dilemmas of Black manhood in America*. New York: Touchstone.
- Malaney, G. D., & Isaac, P. D. (1988). The immediate post-baccalaureate educational plans of outstanding undergraduates. *College and University*, 63, 148–161.
- Mandara, J., & Murray, C. B. (2007). How African American families can facilitate the academic achievement of their children: Implications for family-based interventions. In J. F. L. Jackson (Ed.), *Strengthening the African American educational pipeline: Informing research, policy, and practice* (pp. 165–186). Albany: State University of New York Press.
- McDonough, P. M. (1997). *Choosing colleges: How social class and schools structure opportunity*. Albany: State University of New York Press.
- Moschetti, R., & Hudley, C. (2008, Winter). Measuring social capital among first-generation and non-first-generation, working-class, White males. *Journal of College Admissions*, (198), 25–30.
- Natriello, G., & McDill, E. L. (1986). Performance standards, student effort on homework, and academic achievement. *Sociology of Education*, 59, 18–31.
- Nora, A., Cabrera, A. F., Hagedorn, L. S., & Pascarella, E. T. (1996). Differential impacts of academic and social experiences on college-related behavioral outcomes across different ethnic and gender groups at four-year institutions. *Research in Higher Education*, 37, 427–451.
- Oakes, J. (1985). *Keeping track: How schools structure inequality*. New Haven, CT: Yale University Press.
- Obidah, J. E., Buenavista, T., Gildersleeve, R. E., Kim, P., & Marsh, T. (2007). Teaching in "hard to teach" contexts: African American teachers uniquely positioned in the African American educational pipeline. In J. F. L. Jackson (Ed.), *Strengthening the African American educational pipeline: Informing research, policy, and practice* (pp. 37–52). Albany: State University of New York Press.
- Owings, J. (1996). *National Education Longitudinal Study of 1988 research framework and issues*. Working paper no. 96–03. Washington, DC: National Center for Education Statistics.
- Pace, C. R. (1980). Measuring the quality of student effort. *Current Issues in Higher Education*, 2, 10–16.
- Pace, C. R. (1985). *The credibility of student self-reports*. Los Angeles: University of California Center for the Study of Evaluation.
- Palmer, R. T., & Gasman, M. (2008). "It takes a village to raise a child": The role of social capital in promoting academic success of African American men at a Black college. *Journal of College Student Development*, 49(1), 52–70.
- Parham, T. A., & McDavis, R. J. (1987). Black men, an endangered species: Who's really pulling the trigger? *Journal of Counseling and Development*, 66, 24–27.
- Pascarella, E. T., Pierson, C. T., Wolniak, G. C., & Terenzini, P. T. (2004). First-generation college students: Additional evidence on college experiences and outcomes. *Journal of Higher Education*, 75(3), 249–284.

- Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students*. San Francisco: Jossey-Bass.
- Perna, L. W. (2004). Understanding the decision to enroll in graduate school: Sex and racial/ethnic group differences. *Journal of Higher Education*, 75(5), 487–527.
- Pike, G. R. (2000). The influence of fraternity or sorority membership on students' college experiences and cognitive development. *Research in Higher Education*, 41(1), 95–116.
- Pike, G. R., & Askew, J. W. (1990). The impact of fraternity or sorority membership on academic involvement and learning outcomes. *NASPA Journal*, 28(1), 13–19.
- Polite, V. C., & Davis, J. E. (Eds.). (1999). *African American males in school and society*. New York: Teachers College Press.
- Rooney, G. W. (1985). Minority students' involvement in minority student organizations: An exploratory study. *Journal of College Student Personnel*, 26(5), 450–456.
- Schwitzer, A. M., Griffin, O. T., Ancis, J. R., & Thomas, C. R. (1999). Social adjustment experiences of African American college students. *Journal of Counseling and Development*, 77, 189–197.
- Singh, K., Granville, M., & Dika, S. (2002). Mathematics and science achievement: Effects of motivation, interest, and academic engagement. *The Journal of Educational Research*, 95(6), 323–332.
- Stanton-Salazar, R. D. (1997). A social capital framework for understanding the socialization of racial minority children and youths. *Harvard Educational Review*, 67(1), 1–40.
- Steele, C. M. (2000, February). "Stereotype threat" and Black college students. *AAHE Bulletin*, 52, 3–6.
- Strayhorn, T. L. (2005). More than money matters: An integrated model of graduate student persistence. *Dissertation Abstracts International*, A66(2), 519.
- Strayhorn, T. L. (2006). Involvement matters: Differences by race. *Interchange*, 34(3), 2–5.
- Strayhorn, T. L. (2008a). Examining the relationship between collaborative learning and perceived intellectual development among African American males in college. *The Journal on Excellence in College Teaching*, 19(2–3), 31–50.
- Strayhorn, T. L. (2008b). Fittin' In: Do diverse interactions with peers affect sense of belonging for Black men at predominantly White institutions? *NASPA Journal*, 45(4), 501–527.
- Strayhorn, T. L. (2008c). How college students' engagement affects personal and social learning outcomes. *Journal of College & Character*. Retrieved November 27, 2008, from <http://collegevalues.org/pdfs/Strayhorn.pdf>.
- Strayhorn, T. L. (2008d). Influences on labor market outcomes of African American college graduates: A national study. *Journal of Higher Education*, 79(1), 29–57.
- Strayhorn, T. L. (2008e). Sentido de pertenencia: A hierarchical analysis predicting sense of belonging among Latino college students. *Journal of Hispanic Higher Education*, 7(4), 301–320.

- Strayhorn, T. L. (2008f). The burden of proof: A quantitative study of high-achieving Black collegians. *Journal of African American Studies*, 13(4), 375–387.
- Strayhorn, T. L. (2008g). The role of supportive relationships in facilitating African American males' success in college. *NASPA Journal*, 45(1), 26–48.
- Strayhorn, T. L. (2009). Accessing and analyzing national databases. In T. J. Kowalski & T. J. Lasley II (Eds.), *Handbook of data-based decision making in education* (pp. 105–122). New York: Routledge.
- Sutton, E. M., & Terrell, M. C. (1997). Identifying and developing leadership opportunities for African American men. In M. J. Cuyjet (Ed.), *Helping African American men succeed in college* (pp. 55–64). San Francisco: Jossey-Bass.
- Swail, W. S., Cabrera, A. F., Lee, C., & Williams, A. (2005). *Latino students and the educational pipeline. Part III: Pathways to the bachelor's degree for Latino students*. Washington, DC: Educational Policy Institute and Lumina Foundation for Education.
- Swail, W. S., & Perna, L. W. (2002). Pre-college outreach programs: A national perspective. In W. G. Tierney & L. S. Hagedorn (Eds.), *Increasing access to college: Extending possibilities for all students* (pp. 15–34). Albany: State University of New York Press.
- Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics* (3rd ed.). New York: HarperCollins.
- Thomas, S. L., & Heck, R. H. (2001). Analysis of large-scale secondary data in higher education research: Potential perils associated with complex sampling designs. *Research in Higher Education*, 42(5), 517–540.
- Tierney, W. G., Corwin, Z. B., & Colyar, J. E. (Eds.). (2005). *Preparing for college: Nine elements of effective outreach*. Albany: State University of New York Press.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago: University of Chicago Press.
- Tornatsky, L., Cutler, R., & Lee, J. (2002). *College knowledge: What Latino parents need to know and why*. Claremont, CA: Tomas Rivera Policy Institute.
- U.S. Department of Education, National Center for Education Statistics. (2006). *The condition of education 2006* (NCES 2006-071). Washington, DC: U.S. Government Printing Office.
- Villalpando, O., & Solórzano, D. G. (2005). The role of culture in college preparation programs: A review of the research literature. In W. G. Tierney, Z. B. Corwin, & J. E. Colyar (Eds.), *Preparing for college: Nine elements of effective outreach* (pp. 13–28). Albany: State University of New York Press.
- Walberg, H. J. (1984). Improving the productivity of America's schools. *Educational Leadership*, 41(8), 19–30.
- Walberg, H. J., Paschal, R. A., & Weinstein, T. (1985). Homework's powerful effects on learning. *Educational Leadership*, 42(7), 76–79.
- Walpole, M. (2003). Socioeconomic status and college: How SES affects college experiences and outcomes. *Review of Higher Education*, 27(1), 45–73.
- Walpole, M. (2008). Emerging from the pipeline: African American students, socioeconomic status, and college experiences and outcomes. *Research in Higher Education*, 49(3), 237–255.

Warburton, E. C., Bugarin, R., & Nunez, A. M. (2001). *Bridging the gap: Academic preparation and postsecondary success of first-generation students* (NCES Report 2001-153). Washington, DC: U.S. Department of Education, National Center for Education Statistics.