

Effects of Attending a 2-Year Institution on African American Males' Academic and Social Integration in the First Year of College

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This study explored the impact of attending a 2-year (vs. a 4-year) institution on African American male students' academic and social integration experiences in the first year of college. Descriptive and multivariate analyses of the 1996/1998 Beginning Postsecondary Students Longitudinal Study showed that African American males attending 4-year institutions were more likely to report higher levels of academic and social integration in the first year of college. These findings suggest that student affairs professionals at 2-year institutions should seek to develop appropriate interventions to ensure that African American males are engaging in academic and social integration experiences during their first year of college.

Although large numbers of beginning postsecondary students attend public 4-year institutions, a significant and larger number of first-year students attend public 2-year institutions (Horn, Peter, & Rooney, 2002). In fact, during the 1995–1996 academic year, approximately 46% of all entering freshmen attended public 2-year institutions (Kojaku & Nuñez, 1998). During the same year, 25% of all first-year students attended public 4-year institutions. Four years later, in the 1999–2000 academic year, public 2-year institutions enrolled 42% of all undergraduate students, and public 4-year institutions enrolled 31% of all undergraduate students (Hoachlander, Sikora, & Horn, 2003; Horn et al.). In addition to the sizeable number of students served by 2-year institutions, in 2000, 2-year institutions also served a diverse student body (Horn et al.). Stated differently, in 2000, African American, American Indian/Alaska Native, Hispanic, and Native Hawaiian and Other Pacific Islander undergraduate students were more likely to attend 2-year institutions than 4-year institutions (Horn et al.). Given these statistical indicators, it is clear that 2-year institutions represent a vital component of America's postsecondary education system.

REVIEW OF RESEARCH ON THE EFFECTS OF 2-YEAR COLLEGE ATTENDANCE

Because of increasing enrollments at 2-year institutions, a plethora of researchers have conducted research exploring the effects of attending a 2-year institution (e.g., community college) versus a 4-year institution on students' educational outcomes (Dougherty, 1992; Pascarella, 1999; Pascarella & Terenzini, 1991, 2005; Whitaker & Pascarella, 1994). This line of research has produced some fairly consistent findings regarding bachelor's degree completion rates (Pascarella) and suggests that students at 2-year institutions are not as likely as students at 4-year institutions to earn a bachelor's degree. Although this finding has been consistent in the literature, the effects of this finding on labor market outcomes has been trivial resulting in general parity in terms of the socioeconomic outcomes of education for 2-year and 4-year students. For example, Whitaker and Pascarella (1994), analyzing data from the follow-up study of the National Longitudinal Study of the High School Class of 1972, found that students who began their college careers at 2-year and 4-year institutions received similar earnings and occupational status attainment during a 14-year period.

Research has also explored the impact of attending a 2-year institution on cognitive development and psychosocial outcomes. This line of research, based in large part on nationally representative samples of college students, suggests that students attending 2-year institutions accrue similar cognitive gains as students who attend 4-year institutions. In a multi-institutional study assessing cognitive development for students at 2-year versus 4-year institutions, and consistent with other research (Bohr et al., 1994; Pascarella et al., 1994), Pascarella, Bohr, Nora, and Terenzini (1995) found that first-year students' scores on standardized measures of reading comprehension, mathematics, and critical thinking did not differ by institutional type after one year of college. In a similar study employing data from the National Study of Student Learning, Pascarella, Edison, Nora, Hagedorn, and Terenzini (1995–1996) found that scores on standardized assessments of science reasoning and writing skills did not differ significantly for students at 2-year institutions and students at 4-year institutions after 2 years of college. However, Pascarella, Edison, Nora, Hagedorn, and Terenzini (1998) found that students who attended 2-year institutions were more likely to report lower educational aspirations than were students who attended 4-year institutions. In contrast, Pierson, Wolniak, Pascarella, and Flowers (2003) found that 2-year college students reported greater gains than 4-year college students in openness to diversity and challenge during the first 2 years of college. Pierson et al.'s study also demonstrated that 2-year college students reported significantly more gains in developing an internal locus of control for academic success in the first-year of college

and reported significantly more gains in learning for self-understanding in the second-year of college than did students who attended 4-year institutions.

Regarding the differences between institutional type on student persistence, research conducted by Williamson and Creamer (1988) found that the factors influencing persistence in higher education differed for 2-year college students and 4-year college students. More specifically, Williamson and Creamer, employing structural equations, showed that a measure of locus of control impacted persistence for 2-year college students. Additionally, Williamson and Creamer found that a larger number of background variables predicted persistence in higher education for 4-year college students. These findings suggest that perhaps background characteristics (e.g., race and gender) exert a considerable influence on students' persistence decisions. Despite the research literature on the effects of attending a 2-year institution versus attending a 4-year institution on student development and educational outcomes, more research is needed to better understand the impacts of 2-year college attendance on student persistence for different student subgroups. Pascarella (1999), following an extensive review of research on community colleges, noted the complexity of this assertion and reinforced this contention:

The nature of community colleges and the characteristics and enrollment patterns of the student they serve makes the study of community colleges' impacts extremely challenging. However, we cannot afford to operate in ignorance of the educational influence of a set of nearly 1,300 postsecondary institutions that educate almost 40 percent of our students. (p. 13)

Additionally, although the research on 2-year colleges is extensive and suggestive of a vibrant and low-cost option for first-year college students who are interested in initiating their college education, the research literature has not adequately explored the impact of 2-year college attendance on African American male students.

PURPOSE OF THE STUDY

As a group, African American students have embraced 2-year institutions as evidenced by the enrollment data for this population. Data from a recent national study showed that in 1980, African Americans constituted 10% and 8% of the overall enrollment in 2-year and 4-year institutions, respectively (Hoffman & Llagas, 2003). In 2000, African Americans constituted approximately 12% and 11% of the overall enrollment in 2-year and

4-year institutions, respectively (Hoffman & Llagas). Additionally, based on data from the National Postsecondary Student Aid Study (Horn et al., 2002), African American undergraduate males—who made up 37% of all African American undergraduate students in 2000—constituted approximately 12% and 9% of all male students attending 2-year and 4-year institutions, respectively. Accordingly, approximately 52% of all African American undergraduate males attended 2-year institutions and 44% of all African American undergraduate males attended 4-year institutions.

As one of the largest minority groups among all 2-year and 4-year college students, and coupled with a disproportionately low graduation rate when compared with African American female college students and men and women from other ethnic groups (National Collegiate Athletic Association, 2003), African American male students have been the focus of recent research (Cuyjet, 1997; Howard-Hamilton, 1997; Hrabowski, Maton, & Greif, 1998; Hrabowski & Pearson, 1993; Moore, Flowers, Guion, Zhang, & Staten, 2004; Taylor & Howard-Hamilton, 1995). The scholarly literature has primarily examined a variety of issues seeking to explore the impact of individual-level and institutional-level factors influencing the cognitive and affective development of African American males in college. For example, researchers have investigated factors impacting retention and success rates of African American males at 2-year institutions (Hagedorn, Maxwell, & Hampton, 2001–2002). Researchers have also examined the factors that influence persistence for African American males at historically Black 4-year institutions (Schwartz & Washington, 2002); and research has been produced that documents African American male undergraduates' perceptions of college choice and institutional commitment (Patitu, 2000).

Taken as a whole, the accumulated research literature on African American males has suggested that African American males could benefit from appropriate interventions and additional scholarly inquiry as they relate to improving the academic achievement and retention of African American male students in college. Thus, additional research is needed to examine this group. Toward that end, the purpose of this study was to explore the unique effects of attending a 2-year institution (vs. a 4-year institution) on the amount, magnitude, and extent of student-student interactions, student-faculty interactions, and student-campus interactions that have been shown to positively influence the persistence and retention of college students in general (Tinto, 1993), and African American students in particular (Flowers, 2004–2005). Stated differently, this study sought to examine the direct effects of institutional type on African American male students' academic integration and social integration experiences in the first year of college, controlling for precollege characteristics, institutional characteristics, and college experiences.

THEORETICAL FRAMEWORK

The theoretical framework utilized for this study is based on the work of Tinto (1993), who initially developed the foundation for the majority of the persistence and retention research that has accumulated in recent years. Specifically, this study is based on Tinto's conceptualization that student retention is mediated by the extent and magnitude of a student's academic and social integration experiences in college. Broadly defined, academic integration includes, but is not limited to, those experiences that students have on a college campus that supports academic development, encourages cognitive development, and enhances a student's academic motivation to pursue academic tasks in a meaningful way. In contrast, social integration includes those experiences that help to connect students to the college environment, that aid in their psychosocial development, and that contribute to their overall satisfaction in college.

According to Tinto (1993), formal and informal academic experiences serve to shape and refine a student's commitment to his or her prospective, current, and future educational aspirations and to their commitment to their respective educational institutions. Moreover, formal and informal social experiences may also serve to reinforce students' devotion to an institution, facilitate their development of educational goals, and improve their academic performance in college. It should also be noted that a lack of meaningful and helpful academic and social integration experiences might negatively influence student persistence decisions. The important idea here is that Tinto's model is concerned with the interactive effects of academic and social experiences on a student's decision to remain at an institution or leave higher education. Tinto's model further illustrates the importance of academic and social integration experiences by reinforcing the contention that students who engage in formal and informal academic and social integration experiences are less likely to leave their institution. Tinto added,

Interactive experiences which further one's social and intellectual integration are seen to enhance the likelihood that the individual will persist within the institution until degree completion, because of the impact integrative experiences have upon the continued reformulation of individual goals and commitments. Positive integration serves to raise one's goals and strengthen one's commitments both to those goals and to the institution within which they may be attained. (p. 116)

Tinto's model also considers the effects of precollege characteristics (e.g., family background, skills and abilities, and prior schooling experiences). College experiences such as a student's college major, academic performance (e.g., grade point average [GPA]), and the amount and quality of

student-faculty interactions are also factored into the model of student departure as components of a student's level of academic integration in the college environment. Students' out-of-class experiences (e.g., participation in extracurricular experiences and student-student interactions) are also included in the model to represent their potential influence on students' social integration in college. Tinto's model illuminates the potential temporal dimensions of student departure decisions. Moreover, Tinto's model is effective in demonstrating that student departure decisions constitute a series of individual-level actions and personal responses stimulated by a series of institutional actions, reactions, and/or inactions.

Thus, as Tinto's model suggests, although peripheral experiences and various responsibilities of students might impact student retention, institutions that consider the importance of academic and social integration experiences may contribute to facilitating student persistence by acknowledging the institution's obligation and subsequently providing services and programs that take into account the diversity that exists in terms of how students respond to and interact with the human and structural components of the institution. Furthermore, although the effects of particular positive academic and social integration experiences that deter college student departure have not been identified precisely for all student types across institutional categories, it is clear from Tinto's theory of student departure and nascent research (Pascarella & Terenzini, 1991, 2005) on student persistence that institutional leaders and student affairs professionals might benefit their students by ensuring that a proper mix of academic and social integration experiences are available, mandatory, and accessible.

REVIEW OF RESEARCH ON THE EFFECTS OF ACADEMIC INTEGRATION AND SOCIAL INTEGRATION

As stated earlier, Tinto's view that academic integration and social integration influence a student's decision to persist at postsecondary institutions has been the focus of several research investigations (Christie & Dinham, 1991; Napoli & Wortman, 1996; Pascarella & Terenzini, 1991, 2005; Sullivan, 1997; Zea, Reisen, Beil, & Caplan, 1997). Overall, this line of research has consistently shown that both academic and social integration experiences impact student persistence in college (Zea et al.). What remains to be confirmed by the research literature is the extent to which each type of integrative experience influences persistence. The literature on academic and social integration has produced mixed results in addressing this issue. Bers and Smith (1991) examined student-level data from one community college in the Midwest and found that academic and social integration played a role in determining which students would persist in or withdraw

from school. They noted that social integration had a larger effect on persistence outcomes than did academic integration. However, the authors noted that a student's educational objectives (e.g., reasons for attending school) and employment status (e.g., part time vs. full time) contributed more to differentiating persisters from nonpersisters than did academic integration and social integration experiences. Maisto and Tammi (1991) compared students who participated in a freshman seminar course with those students who did not and found that participants in a freshman seminar course were more likely to return their sophomore year than were nonparticipants. Maisto and Tammi also found that participants in the freshman seminar course were more likely to use services designed for student development and more likely to participate in out-of-class student activities. Because most of the students in their study were identified as at-risk by the researchers, Maisto and Tammi's study lends support to the notion that academic integration may not contribute as much to retention as social integration does for students with special needs. Stage (1989), using structural equations that explored the relationships among first-year students' precollege traits, motivations, commitments, academic integration, social integration, and persistence, found that students who were academically integrated into the university (as evidenced by higher GPAs) were not more likely to persist in college than were students with lower GPAs. In a study of 512 first-year students, Beil, Reisen, Zea, and Caplan (1999) found that academic integration and social integration predicted students' institutional commitments that in turn influenced their persistence in college after 3 years.

Research has also uncovered mixed findings on the effects of academic and social integration for African American students. To be sure, the weight of research evidence has shown that social integration might serve as a stronger predictor of persistence for African American students. For example, Mallinckrodt (1988) and Mallinckrodt and Sedlacek (1987) found that measures of social integration influenced retention rates for African American students. In both studies, it was found that African American students who either perceived greater social support or participated in social activities were more likely to persist in college. Conflicting findings, however, have also been reported and suggest that academic integration also plays a prominent role in promoting retention and persistence in university environments for African American students. In a cross-sectional study, Zea et al. (1997) found that African American students' academic integration (as measured by GPA) positively correlated with a four-item measure assessing students' commitments to persist at their respective institutions or another postsecondary institution.

Although a substantial amount of research literature exploring academic integration and social integration has been encouraging and suggests that

these two constructs predict a considerable amount of variance on a variety of important student outcome measures (Pascarella & Terenzini, 1991, 2005; Tinto, 1993), the research literature has not adequately explored the role of institutional type on academic and social integration experiences for African American college students. Moreover, the research exploring the effects of institutional type for African American male students is even less adequate. As such, this study seeks to add a missing component to the student development and student retention literature bases. Thus, the primary objective of this study was to estimate the influence of attending a 2-year institution (vs. a 4-year institution) on African American male students' academic integration and social integration experiences in the first year of college.

METHOD

DATA SOURCE

Data from the 1996/1998 Beginning Postsecondary Students Longitudinal Study (BPS: 1996/1998) were used in the present study (Berkner, He, & Cataldi, 2003; Hoachlander et al., 2003; Kojaku & Nuñez, 1998; Wine, Whitmore, Heuer, Biber, & Pratt, 2000). BPS: 1996/1998 is a nationally representative longitudinal study designed to measure the impact of a wide array of individual-level factors and institutional-level characteristics on academic achievement, social growth, and college experiences and outcomes. The student cohort, which constitutes the primary sampling unit in BPS: 1996/1998, was based on the 1996 National Postsecondary Student Aid Study (NPSAS:96). The NPSAS is a nationally representative database designed to study how college students and their parents or guardians finance the costs of higher education. The BPS: 1996/1998 student cohort consisted of a representative sample of "approximately 12,000 beginning postsecondary students from 832 institutions" (Kojaku & Nuñez, p. 1). The following data were collected from the base-year cohort: (a) precollege characteristics and background information, (b) institutional characteristics, (c) parent data, and (d) student transcript data (Kojaku & Nuñez; Wine et al.).

FIRST FOLLOW-UP DATA COLLECTION

Consistent with the base-year sample design, the first follow-up data collection resurveyed base-year students in 1998 (2 years after the base-year data collection) to obtain information pertaining to their academic experiences after the first year of college. In addition, data were collected

on students' out-of-class experiences in college. Of the approximately 12,000 students who participated in the base-year survey, approximately 10,000 students participated in the first follow-up data collection (Wine et al., 2000). A second follow-up similar to the first was conducted in 2001 (Wine, Heuer, Wheelless, Francis, & Dudley, 2002). Because this study primarily focused on first-year students, only data from the first follow-up were used.

The present study was based on 467 African American males who began their postsecondary studies in the 1995–1996 academic year. Sample weights were also developed for the BPS: 1996/1998. The sample weights employed in BPS: 1996/1998 permit researchers to generalize results of data analyses to the entire population of first-year students in the 1995–1996 academic year (Wine et al., 2000). An analysis of selected demographic characteristics of the weighted sample revealed (as shown in Table 1) that the African American males at 2-year institutions were more likely to be older students than were their counterparts at 4-year institutions. Table 1 also shows that the African American males at 2-year institutions reported lower family incomes than did the African American males at 4-year institutions. Table 1 indicates that African American male first-year students' high school grades, college entrance examination scores, and educational aspirations differed by institutional type. However, it should be noted, only the differences in educational aspirations were statistically significant.

DEPENDENT, INDEPENDENT, AND CONTROL VARIABLES

In addition to Tinto's theory of student departure, this study was informed by a considerable amount of research evidence that suggests that four sources of influence must be considered when attempting to understand the impact of college on educational outcomes: (a) precollege characteristics and background traits, (b) institutional characteristics, (c) students' academic experiences in college, and (d) students' nonacademic experiences in college (Pascarella & Terenzini, 1991). This study was also informed by a recent investigation conducted by Flowers (2004–2005). More specifically, Flowers performed a comprehensive review of the research literature on the effects of college on African American student retention, which led to the identification of particular variables that have been shown to support African American student retention on college campuses. Formal ways in which each theoretical and conceptual framework informed the research design of the present study are described in subsequent sections of this article. Specifically, this information was used to aid in the selection of important variables to include in the multivariate analyses, and it suggested

Table 1. Descriptive statistics of selected demographic characteristics for African American males in the Beginning Postsecondary Students Longitudinal Study by Institutional Type, 1995–1996

Demographic Characteristics	2-Year (Mean)	4-Year (Mean)
Age	21.70	19.64
Family income	27615.99	37623.27
High school grade point average	5.60	5.41
College entrance examination score	791.72	788.34
Educational aspirations	3.89	4.79*

* $p < .01$.

appropriate ways in which the independent variable might influence the dependent variables.

This section describes the dependent, independent, and control variables from the BPS: 1996/1998 longitudinal study. Two dependent variables were employed in this study: (a) a measure of academic integration and (b) a measure of social integration. The academic integration scale used in the present study was based on a composite measure indicating how often students engaged in the following activities: (a) attended study groups outside of the classroom; (b) had informal or social contacts with advisor or other faculty members outside of classrooms and offices; (c) talked with faculty about academic matters outside of class time; and (d) met with advisor concerning academic plans. The coefficient alpha for this scale was .72. The social integration scale used in the present study was based on a composite measure indicating how often students engaged in the following activities: (a) participated in school clubs (e.g., student government, religious clubs, service activities); (b) attended music, choir, drama, or other fine arts activities; (c) participated in intramural or nonvarsity sports; (d) participated in varsity or intercollegiate sports; and (e) went places with friends from school (e.g., concerts, movies, restaurants, sporting events). The coefficient alpha for this scale was .59. Each item constituting the academic and social integration scales had a response set comprising three Likert-type scale choices (i.e., 3 = *often*, 2 = *sometimes*, 1 = *never*). To construct each scale, non-missing values for each scale item were averaged. Then, the average was multiplied by 100. These same procedures were utilized to create the academic and social integration scales in the Data Analysis System for BPS: 2001 (National Center for Education Statistics, 2005). The rationale for

using these nine variables to form the dependent variables is consistent with considerable research on academic and social integration (Maisto & Tammi, 1991; Napoli & Wortman, 1996; Pascarella & Terenzini, 1991; Tinto, 1993; Williamson & Creamer, 1988; Zea et al., 1997). Because the present study sought to estimate the effects of attending a 2-year and 4-year institution on African American male students' academic and social integration experiences, the primary independent variable was the type of institution attended. This categorical variable was coded as: 1 = *attended a 2-year institution* and 0 = *attended a 4-year institution*.

Based on the theoretical and conceptual frameworks used in the present investigation, the study incorporated a number of control variables. The first set of control variables consisted of students' precollege characteristics and background traits: (a) age, (b) family income, (c) high school GPA, (d) college entrance examination score, and (e) educational aspirations. The second set of control variables consisted of characteristics of the institution: (a) institutional control, (b) college racial composition, and (c) institutional size. Students' academic experiences constituted the third set of control variables: (a) college GPA and (b) college major. Students' nonacademic experiences in college constituted the fourth set of control variables: (a) hours per week spent working and (b) a measure of college satisfaction. Precedent for using these variables to control for the influence of college can be found in other research investigations estimating the impact of college attendance on educational and labor market outcomes (e.g., Flowers, 2004–2005; Pascarella & Terenzini, 1991, 2005). Operational definitions of the dependent, independent, and control variables are shown in Table 2.

ANALYTICAL TECHNIQUES

Data analysis occurred in a two-stage process. In the first stage, the independent samples *t* tests procedure was used to determine if significant differences existed between African American males attending 2-year and 4-year institutions on academic and social integration experiences. In the second stage of data analysis, employing ordinary least squares regression, both dependent variables were regressed separately on the independent variable while applying statistical controls for the effects of all other variables in the regression equations (Pedhazur, 1997). An effect size was computed by dividing the unstandardized regression coefficients by the pooled standard deviation of the outcome measures (Hays, 1994). All statistical results were reported significant at $p < .01$. Because the sampling procedures used to collect the restricted-level data for the BPS: 1996/1998 were based on complex sampling procedures (Broene & Rust, 2000), *AM Statistical Software*, a statistical software program, was used to analyze all data using appropriate weights to produce correct standard errors for all estimates.

Table 2. Operational definitions of variables from the 1996/1998 Beginning Postsecondary Students Longitudinal Study**Part A: Dependent Variables**

Academic Integration: An individual's score on a 4-item scale designed to measure students' overall levels of academic integration in college. The academic integration scale measured the extent to which students engaged in the following activities: (a) attended study groups outside of the classroom, (b) had informal or social contacts with advisor or other faculty members outside of classrooms and offices, (c) talked with faculty about academic matters outside of class time, and (d) met with advisor concerning academic plans. The response scale had three options: *often*, *sometimes*, and *never*.

Social Integration: An individual's score on a five-item scale designed to measure students' overall levels of social integration in college. The social integration scale measured the extent to which students had engaged in the following activities: (a) participated in school clubs (e.g., student government, religious clubs, service activities), (b) attended music, choir, drama, or other fine arts activities, (c) participated in intramural or nonvarsity sports, (d) participated in varsity or intercollegiate sports, and (e) went places with friends from school (e.g., concerts, movies, restaurants, sporting events). The response scale had three options: *often*, *sometimes*, and *never*.

Part B: Independent Variable

Institutional Type: A categorical variable was coded: 1 = *attended a 2-year institution*, 0 = *attended a 4-year institution*.

Part C: Control Variables***Precollege Characteristics and Background Traits***

Age: A continuous variable based on a self-reported measure of the respondent's year of birth.

Family Income: A continuous variable was developed based on the total income in 1994 for independent students and parents of dependent students.

High School Grade Point Average: A categorical variable based on a student's self-reported high school grade point average was coded: 1 = *D- to D*; 2 = *D to C-*; 3 = *C- to C*; 4 = *C to B-*; 5 = *B- to B*; 6 = *B to A-*; 7 = *A- to A*.

College Entrance Examination Score: A continuous variable was developed based on a student's agency-reported, institution-reported, or student-reported SAT or ACT score.

Educational Aspirations: A categorical variable based on a student's self-reported assessment of the highest degree that he or she expected to obtain in his or her lifetime was coded: 1 = *no degree or certificate*, 2 = *certificate*, 3 = *associate's degree*, 4 = *bachelor's degree*, 5 = *completion of postbaccalaureate program*, 6 = *master's degree*, 7 = *doctoral or first-professional degree*.

Institutional Characteristics

Institutional Control: A categorical variable was coded: 1 = *attended a public institution*, 0 = *attended a private institution*.

College Racial Composition: A categorical variable was coded: 1 = *attended a historically Black institution*, 0 = *attended a predominantly White institution*.

Institutional Size: A continuous variable based on the total enrollment of students at the institution attended.

Table 2. (Continued)**Academic Experiences**

College Grade Point Average (GPA): A continuous variable based on a student's end-of-first-year GPA. The GPA was reported by the institution and was based on a 4.0 scale.

College Major: A categorical variable based on a student's self-report of his or her major in the first year of college was coded: 1 = humanities, 2 = social/behavioral sciences, 3 = life sciences, 4 = physical sciences, 5 = math, 6 = computer/information science, 7 = engineering, 8 = education, 9 = business/management, 10 = health, 11 = vocational/technical, 12 = other technical/professional.

Nonacademic Experiences

Hours Per Week Spent Working: A continuous variable based on a student's self-report of the average hours worked per week during the first year of college.

College Satisfaction: A continuous variable measuring the overall level of satisfaction that the student had with his or her institution during the first year of college.

RESULTS

The results of the descriptive analyses are reported in Table 3. The results of the multivariate analyses are reported in Table 4. As shown in Table 3, African American males at 4-year institutions were more likely to attend study groups outside of the classroom than were African American males at 2-year institutions. African American males at 4-year institutions were also more likely to talk with faculty about academic matters outside of class time and meet with their advisor concerning academic plans than were African American males at 2-year institutions. African American males at 4-year institutions also reported they were more likely to have informal or social contacts with their advisor or other faculty members outside of classrooms and offices, but this difference was not statistically significant.

Based on the descriptive analyses reported in Table 3, African American males at 4-year institutions also reported more social integration experiences than did African American males at 2-year institutions in the first year of college. Specifically, African American males at 4-year institutions were significantly more likely to participate in school clubs (e.g., student government, religious clubs, service activities); attend music, choir, drama, or other fine arts activities; participate in intramural or nonvarsity sports; and go places with friends from school (e.g., concerts, movies, restaurants, sporting events) than were African American males at 2-year institutions. African American males also reported that they were more likely to participate in varsity or intercollegiate sports, but this difference was not significant.

Consistent with the descriptive statistical results, controlling for precollege factors, institutional characteristics, and students' college experiences, the results of the multiple regression analyses showed that African Amer-

Table 3. Descriptive statistics for each item from the academic and social integration scales by institutional type

Dependent Variable	2-Year (Mean)	4-Year (Mean)
Part A: Academic Integration		
Attended study groups outside of the classroom	1.29	2.02*
Had informal or social contacts with advisor or other faculty members outside of classrooms and offices	1.56	1.78
Talked with faculty about academic matters outside of class time	1.70	2.11*
Met with advisor concerning academic plans	1.79	2.12*
Part B: Social Integration		
Participated in school clubs (e.g., student government, religious clubs, service activities)	1.16	1.59*
Attended music, choir, drama, or other fine arts activities	1.26	1.69*
Participated in intramural or nonvarsity sports	1.29	1.83*
Participated in varsity or intercollegiate sports	1.21	1.46
Went places with friends from school (e.g., concerts, movies, restaurants, sporting events)	1.89	2.36*

* $p < .01$.

ican males at 4-year institutions reported significantly more academic integration experiences ($b = -25.91$, $p < .01$) than their 2-year counterparts. African American males at 4-year institutions also reported significantly more social integration experiences ($b = -30.45$, $p < .01$). Effect sizes were computed by dividing the unstandardized regression coefficient by the pooled standard deviations of the dependent variables. This effect size estimate showed the practical significance of the difference in academic and social integration experiences (measured in standard deviation units) between African American males who attended 2-year and 4-year institutions in the first year of college. Employing the effect size calculations yielded effect sizes of $-.48$ and $-.65$ for the academic and social integration scales, respectively. The effect sizes for academic and social integration indicate that the statistically significant effects of attending a 4-year institution on African American males' academic and social integration are also practically significant.

It should be noted that traditional limitations of survey research impacted this study and may limit the utility of these results in certain contexts. For example, the R^2 values indicated that as much as 72% of the variance influencing academic and social integration was not accounted for in the regression models used in the present study. Perhaps other variables that were not specified in the model may have contributed to the explanation of academic and social integration. Another limiting factor in this study

Table 4. Regression summaries for the effects of attending a 2-year institution on African American male students' academic and social integration

Dependent Variable	Mean	Standard Deviation	<i>b</i>	Effect Size	<i>R</i> ²
Academic Integration	173.27	54.43	− 25.91 *	− .48	.28 *
Social Integration	152.74	46.99	− 30.45 *	− .65	.38 *

Note. Regression equations include controls for the following variables: age; family income; high school grade point average; college entrance examination score; educational aspirations; institutional control; college racial composition; institutional size; college grade point average; college major; hours per week spent working; and college satisfaction. *b* is the unstandardized regression coefficient. Effect sizes were computed by dividing *b* by the pooled standard deviation of each dependent variable.

* $p < .01$.

resulted from the low coefficient alpha for the social integration scale. More specifically, the data indicated that the interitem reliability for the social integration scale was low (Carmines & Zeller, 1979; Traub, 1994). In addition, because information was obtained from beginning postsecondary students during the 1995–1996 academic year, statistical results may not extend to all African American male first-year students in recent or future years. However, given the comprehensive nature of the 1996/1998 Beginning Postsecondary Longitudinal Study, the results from the present study may serve as a benchmark to support future research studies employing national databases or campus-based studies designed to achieve similar goals.

DISCUSSION

Recent data from the National Center for Education Statistics (Horn et al., 2002) indicated that more African American students attend 2-year institutions than they attend 4-year institutions. Because more African American students are attending 2-year institutions than 4-year institutions, and in light of the fact that retention rates for African American males are low (Flowers, 2004–2005; National Collegiate Athletic Association, 2003), this study sought to estimate the effects of attending a 2-year institution on African American males' academic and social integration in college. According to Tinto (1993), academic and social integration experiences exert a substantial amount of influence on a student's decision to persist at his or her respective institution or leave higher education completely. In addition, Tinto's theory of student departure has been the focus of a considerable amount of research that has primarily examined the direct and indirect

effects of academic integration and social integration for college students (Maisto & Tammi, 1991; Pascarella & Terenzini, 1991, 2005; Stage, 1989; Sullivan, 1997; Zea et al., 1997). Taken as a whole, the weight of research has suggested that both academic integration and social integration experiences influence retention for college students at 2-year and 4-year institutions. Although the proper mix of each type of integration experience has eluded researchers, there is little question that academic integration and social integration are two important constructs that deserve continued attention by researchers interested in specifying effective programs of study and participation for college students most at risk of leaving college before obtaining a degree.

Controlling for precollege characteristics (e.g., age, family income), institutional characteristics (e.g., institutional control, attending a historically Black college), in-class experiences (e.g., GPA, college major), and out-of-class experiences (e.g., hours spent working, perceptions of college satisfaction), this study found compelling evidence to suggest that African American males who attend 4-year institutions engage in more academic and social integration experiences than their counterparts at 2-year institutions. Although it can be argued that student effort and academic motivation (which were not examined in this study) may impact academic and social integration, it can also be argued that the academic and social culture of the institutional environments at 2-year and 4-year institutions may also play a prominent role.

This study is an important investigation in light of previous literature that documented the importance of the freshman year on student retention (Beil et al., 1999; Noel, Levitz, & Saluri, 1985; Upcraft, Gardner, & Barefoot, 2005). Specifically, researchers noted that students' initial experiences with the college environment impact their persistence decisions. Overall, the findings of this study supported the need for 2-year colleges to study their institutional practices and policies that are germane to enhancing academic and social integration experiences for African American males. This contention is magnified in light of research findings, which suggested that students, counselors, faculty, and administrators at community colleges have different perceptions of the type and magnitude of students' academic and social experiences in college (Moss & Young, 1995). The present study also provided evidence to suggest that college counselors and academic advisors may be able to provide socialization experiences for first-year African American male students, which may help them to commit to their institution and become more satisfied with the college experience. Additionally, it can be inferred from the study that high school counselors can also enhance and improve college-bound African American males' academic integration and social integration experiences in college by preparing them for the academic and social atmosphere in college.

The findings in this study overwhelmingly support the view that African American male students attending 4-year institutions have significantly more academic and social integration experiences on campus. However, 4-year institutions may also consider focusing on improving their services and program options for African American males in light of consistent research findings that suggested that African American college students were more likely than other students to report feelings of isolation, experiences of insensitivity, and inadequate and inappropriate student-faculty interaction experiences on campus (Ancis, Sedlacek, & Mohr, 2000; Flowers, 2003; Schwitzer, Griffin, Ancis, & Thomas, 1999; Solórzano, Ceja, & Yosso, 2000). Thus, it is imperative that student affairs professionals, faculty, and campus administrators at 4-year institutions also work to ensure that African American male students' academic integration and social integration experiences are free from hostility, inappropriate actions, and stereotypic situations.

To further assist 2-year and 4-year higher education institutions in improving the campus environment to better support African American male student development, more research is needed to explore postsecondary institutions to determine which aspects of African American male students' experiences can be improved through institutional means and which are under the primary control of the student. Research that considers this distinction will provide a major contribution to this literature base and incorporate the first major innovation in this body of research in many years. Additionally, more research is needed to assess the quality of particular academic and social experiences for African American male students. For example, although this study showed that African American male students at 4-year institutions were more likely to engage in academic and social integration experiences than were African American male students at 2-year institutions, what was missing from this analysis was African American male students' perceptions of the quality and worth of those academic and social experiences. Perhaps it was the case that African American male students at 2-year institutions had better quality experiences, which contributes more to retention and persistence than the quantity of those experiences. This study did not contain the data necessary to probe this particular issue, but future research studies should take this issue under advisement and explore the quality or value of certain experiences for African American male students and subsequently examine the effects of "quality" interactions on students' educational outcomes (e.g., retention, GPA, labor market outcomes, and educational attainment). Furthermore, future research is needed to measure the effectiveness of educational and retention programs and related services designed to increase academic and social integration experiences for all African American students in college.

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