

SECTION II:

**Engaging Students and the Community
through Study Abroad, Service-Learning,
and Civic Engagement**

CHAPTER 6

The Effects of College on African Americans' Volunteer Experiences After Graduation

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Abstract: Data analyzed from the Baccalaureate and Beyond Longitudinal Study indicated that hours spent engaging in volunteer activities during college had small, yet negative, significant effects on the amount of time that African Americans spent volunteering four years after college. The statistical results also indicated that African Americans who majored in social science and business were more likely to volunteer than African Americans who majored in science and engineering.

Each year, many individuals in the United States volunteer to help other people, community organizations, and schools achieve important goals (Hayghe, 1991; Johnson, Beebe, Mortimer, & Snyder, 1998; United States Department of Labor, 2007). According to Wilson (2000), volunteering refers to “an activity in which time is given freely to benefit another person, group, or organization” (p. 215). Other researchers have described volunteering as an experience in which individuals provide tangible and intangible resources for others without compensation (Hayghe, 1991; Musick, Wilson, & Bynum, 2000; Sergeant & Sedlacek, 1990). Studies have also shown that volunteers serve in several ways to assist citizens as well as social and political institutions in pursuing purposeful endeavors (Hayghe, 1991; Jayson, 2004). Moreover, volunteers expend considerable

energy to provide services for a variety of people as well as donate their time and resources in some capacity to accomplish particular objectives (Simon & Wang, 2002). Additionally, volunteers contribute financial and other resources for the betterment of society by engaging in specific helping behaviors to achieve special and meaningful aims.

National data suggests that college students and college graduates constitute the largest percentage of volunteers in America (Astin & Sax, 1998; Ingels, Curtin, Kaufman, Alt, & Chen, 2002; Johnson, 2004; Knox, Lindsay, & Kolb, 1993; Sax & Astin, 1997; United States Department of Labor, 2007). Hayghe (1991) analyzed nationally representative data in 1989 and reported that "Education is apparently another important determinant of volunteering. Adults with a college degree are much more likely to do volunteer work than those with fewer years of schooling" (p. 18). In a more recent report by the National Center for Education Statistics (NCES) entitled, *Coming of Age in the 1990s: The Eighth-Grade Class of 1988 12 Years Later* (Ingels et al., 2002), findings showed that individuals who had completed a Bachelor's degree were nearly twice as likely to volunteer in a youth organization than were individuals who did not pursue postsecondary education. Statistical findings from the same NCES study showed that individuals who had completed a Bachelor's degree were more likely to volunteer in civic or community organizations than were individuals who did not pursue a postsecondary education.

Moreover, three other national studies have demonstrated the impact of college attendance on volunteering. Each study was based on data from the Current Population Survey (CPS), a survey of households conducted by the Bureau of Census in conjunction with the Bureau of Labor Statistics (United States Department of Labor, 2007). In each CPS study, a volunteer was defined as an individual who performed work without remuneration for an organization (e.g., schools, youth organizations, non-profit groups). In the first CPS study (United States Department of Labor, 2003), of the more than 63 million people who performed volunteer work at least once during September 2002 to September 2003, data showed that persons who had a Bachelor's degree volunteered 12 more hours a year than persons whose highest level of educational attainment was a high school diploma or equivalent (60 median annual hours and 48 median annual hours, respectively). In the second study, of the nearly 65 million people who volunteered in some way during September 2003 to September 2004, data showed that persons who had a Bachelor's degree volunteered 10 more hours a year than persons whose highest level of educational attainment was a high school diploma or equivalent (United States Department of Labor, 2004). In the third CPS study (United States Department of Labor, 2005), data revealed that college graduates were still more likely to volunteer their time than persons

who did not attend college (55 median annual hours and 48 median annual hours, respectively). Another national study also had similar results (United States Department of Labor, 2007).

Research and national data has also informed our understanding of racial differences in volunteering (Musick et al., 2000; Stoll, 2001; United States Department of Labor, 2003, 2004, 2005, 2007). For instance, Hayghe (1991) found that Whites were more likely than African Americans to perform volunteer work. Table 1, highlighting CPS data collected in 2003, 2004, and 2005, shows marked racial differences in volunteering behaviors. As shown in Table 1, African Americans were less likely than Whites to volunteer in 2003, 2004, and 2005. However, among the individuals who volunteered in 2003, Table 1 showed that both African Americans and Whites spent approximately the same amount of time a year volunteering (52 median annual hours). In contrast, in 2004 and 2005, African Americans spent more time volunteering than Whites. Table 2 further highlighted racial differences in volunteering experiences. More specifically, these data indicated that in 2003, 2004, and 2005 Whites were more likely than African Americans to volunteer in two, three, four, and five or more organizations. However, in contrast to the research findings discussed in this section, Stoll (2001), analyzing data from the 1993–1994 Los Angeles Survey of Urban Inequality, found that the African Americans in his study participated in more voluntary associations than did other racial and ethnic minority groups.

Table 1. Volunteers by Selected Characteristics, 2003, 2004, 2005, and 2006

Characteristics	2003			2004			2005			2006		
	Number	% of Pop.	Median Annual Hours	Number	% of Pop.	Median Annual Hours	Number	% of Pop.	Median Annual Hours	Number	% of Pop.	Median Annual Hours
Educational Attainment^a												
Less than a high school diploma	2,793	9.9	48	2,718	9.6	40	2,837	10.0	48	2,615	9.3	50
High school graduate, no college ^b	12,882	21.7	48	12,709	21.6	50	12,594	21.2	48	11,537	19.2	52
Less than a bachelor's degree ^c	15,966	34.1	52	16,414	34.2	52	16,452	33.7	50	15,196	30.9	52
College graduates	23,481	45.6	60	23,880	45.7	60	24,517	45.8	55	23,808	43.3	55
Race												
African American	5,145	20.0	52	5,435	20.8	56	5,879	22.1	52	5,211	19.2	52
White	55,572	30.6	52	55,892	30.5	52	56,170	30.4	50	52,850	28.3	52

Note. Table adapted from *Volunteering in the United States, 2006*, published by the Bureau of Labor Statistics in the US Department of Labor. Numbers in thousands.

^aData refer to persons 25 years and over.

^bIncludes high school diploma or equivalent.

^cIncludes the categories "some college, no degree" and "associate degree."

Table 2. Volunteers by Number of Organizations for which Volunteer Activities Were Performed and Selected Characteristics, 2003, 2004, 2005, and 2006

Characteristics	Total Volunteers	Percent Distribution of the Number of Organizations for which Volunteer Activities were Performed					
		One	Two	Three	Four	Five +	Not Reporting No. of Orgs
2003							
Educational Attainment ^a							
Less than a high school diploma	2,793	87.2	9.5	2.1	.5	.5	.3
High school graduate, no college ^b	12,882	78.0	15.4	4.5	1.1	.7	.2
Less than a bachelor's degree ^c	15,966	69.9	19.4	7.2	2.0	1.4	.2
College graduates	23,481	59.5	23.4	10.4	3.7	2.6	.3
Race							
African American	5,145	80.5	13.5	3.4	1.3	1.1	.3
White	55,572	68.0	19.7	7.9	2.5	1.7	.3
2004							
Educational Attainment ^a							
Less than a high school diploma	2,718	88.2	8.1	2.3	.5	.8	0
High school graduate, no college ^b	12,709	78.0	15.6	4.2	1.4	.6	.2
Less than a bachelor's degree ^c	16,414	69.8	19.4	7.1	2.3	1.2	.2
College graduates	23,880	60.1	23.4	10.1	3.7	2.5	.3
Race							
African American	5,435	77.2	15.4	4.0	1.5	1.4	.4
White	55,892	68.4	19.9	7.4	2.6	1.5	.2
2005							
Educational Attainment ^a							
Less than a high school diploma	2,837	88.1	8.6	2.4	.5	.3	.1
High school graduate, no college ^b	12,594	78.3	15.3	4.0	1.3	.8	.2
Less than a bachelor's degree ^c	16,452	70.3	18.8	7.2	2.1	1.4	.3
College graduates	24,517	59.8	23.4	9.9	3.8	2.8	.3
Race							
African American	5,879	77.9	13.9	5.2	1.4	1.2	.4
White	56,170	68.3	19.7	7.3	2.6	1.9	.3
2006							
Educational Attainment ^a							
Less than a high school diploma	2,615	87.2	9.3	2.2	.8	.3	.2
High school graduate, no college ^b	11,537	77.0	16.1	4.3	1.3	1.0	.3
Less than a bachelor's degree ^c	15,196	70.5	19.0	6.8	2.3	1.2	.2
College graduates	23,808	59.3	23.9	10.3	3.5	2.7	.3
Race							
African American	5,211	75.7	14.7	5.3	2.3	1.3	.7
White	52,850	67.3	20.5	7.7	2.5	1.7	.3

Note. Table adapted from *Volunteering in the United States, 2003*, *Volunteering in the United States, 2004*, *Volunteering in the United States, 2005*, and *Volunteering in the United States, 2006* published by the Bureau of Labor Statistics in the United States Department of Labor. Numbers in thousands.

^aData refer to persons 25 years and over

^bIncludes high school diploma or equivalent

^cIncludes the categories “some college, no degree” and “associate degree”

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We also know from research that racial differences exist among college student volunteers. Balenger and Sedlacek (1993) found that African American students were more likely than White students to express that they were interested in participating in volunteer activities while in college. Consistent with the Balenger and Sedlacek study, data analyses from the Baccalaureate and Beyond Longitudinal Study showed that African American students who graduated in 1993 were more likely than White students to participate in community service or volunteer activities during their senior year (see Table 3). Of those students who volunteered during their senior year, the data revealed that African American students also spent more time engaging in volunteer activities than White students. Furthermore, based on additional data analyses from the Baccalaureate and Beyond Longitudinal Study, descriptive statistics showed that four years later in 1997, African American college graduates were more likely than White college graduates to report that they had participated in volunteer work. Additionally, as shown in Table 4, African American college graduates spent more time volunteering on average than did White college graduates.

Table 3. Percentage Distribution of 1992–1993 Bachelor’s Degree Recipients, by Volunteer Experiences and Race

Race	Volunteer Experiences		Average Hours of Volunteer Work
	<u>Performed Volunteer Work</u>		
	Yes	No	
African American	57	43	7
White	45	55	6

Note. U.S. Department of Education, National Center for Education Statistics, 1993/1997 Baccalaureate and Beyond Longitudinal Study, Second Follow-up, (B&B: 1993/1997), Data Analysis System.

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Table 4. Percentage Distribution of 1992–1993 Bachelor’s Degree Recipients, by Volunteer Experiences and Race in 1997

Race	Volunteer Experiences		Average Hours of Volunteer Work
	<u>Performed Volunteer Work</u>		
	Yes	No	
African American	47	53	13
White	43	57	12

Note. U.S. Department of Education, National Center for Education Statistics, 1993/1997 Baccalaureate and Beyond Longitudinal Study, Second Follow-up, (B&B: 1993/1997), Data Analysis System.

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The extant data and research highlighting racial differences in volunteer experiences clearly showed that while African Americans were less likely than Whites to volunteer among the general population, African American college students and graduates were more likely than White college students and graduates to volunteer. Viewed collectively, these data suggest that college attendance plays a major role in African Americans’ volunteer experiences. Accordingly, what remains to be discovered is the extent to which personal factors, institutional variables, and student involvement experiences impact African Americans’ volunteer experiences after college. Stated differently, additional research is needed to explore how the impact of institutional control and other important factors such as students’ precollege characteristics, institutional type, students’ academic experiences, and nonacademic experiences in college influences participation in volunteer activities for African American college graduates.

REVIEW OF RELATED LITERATURE

The literature base that provides the scholarly context for this study can be

1. research examining the reasons why college students volunteer;
2. research that examines the impact of volunteer experiences on student development; and
3. research that explores the effects of college on volunteer experiences.

Research investigating the factors that impact college students' willingness to engage in volunteer work sheds light on the primary rationales that college students employ when deciding to serve as a volunteer or participate in community service (O'Brien, Sedlacek, & Kandell, 1994; Winniford, Carpenter, & Grider, 1997). This line of research suggests that particular demographic characteristics, environmental factors, and student involvement experiences influence college students to volunteer (Astin, Sax, & Avalos, 1999; Balenger & Sedlacek, 1993; Sergent & Sedlacek, 1990; Winniford et al., 1997). Overall, this line of research indicated that students engage in volunteer and community service to satisfy their need to help others, contribute to society, and develop vocational skills. Another important finding of this empirical research, consistent with national data (e.g., CPS, National Education Longitudinal Study of 1988), is that college graduates are more likely to participate in volunteer activities than persons with less educational attainment (Hayghe, 1991; Ingels et al., 2002; Knox et al., 1993).

Regarding the second type of research reviewed for this study, the weight of evidence indicates that college students who participate in volunteer experiences report higher academic and affective outcomes than non-volunteers do (Astin & Sax, 1998; Astin et al., 1999; Sax & Astin, 1997). Surdyk and Diddams (1999), in a study of 185 college graduates, found that volunteer experiences resulted in enhanced occupational status attainment. Overall, this research suggested that volunteer experiences provide college students with a sense of accomplishment and satisfaction that positively contributes to their cognitive and psychosocial development in college. Another line of research has focused on the influence of college on post-college volunteer experiences. This line of research indicated that college attendance positively influences volunteer experiences after graduation (Hayghe, 1991). Data from the National Education Longitudinal Study of 1988 (Ingels et al., 2002) showed that college graduates were twice as likely to participate in volunteer experiences as individuals who did not pursue a postsecondary education (25% and 12%, respectively). Astin et al. (1999), in a longitudinal study, found that participation in volunteer experiences in college had a positive effect on students' post-graduate participation in volunteer experiences. Furthermore, Knox et al. (1993) also found that educational attainment was positively and significantly related to participation in volunteer work after college. Also, findings from Winniford et al.'s study (1997) of college graduates from more than thirty-one institutions in the Appalachian region indicated that participation in volunteer and community organizations on campus positively impacts the degree to which college graduates participate in service-related activities. In contrast to these findings, Vogelgesang and Astin (2005) found, based on a national study of former undergraduates, college graduates become less likely to participate in volunteer activities after graduation.

PURPOSE OF THE STUDY

While the previous research literature on the effects of college on volunteer experiences contributes to our understanding of the influence of college on students' post-college volunteer experiences, the present study seeks to extend the previous research in this area by focusing on the extent to which student characteristics, institutional characteristics, college experiences, and after-college experiences influence African American college graduates to participate in volunteer activities. Toward that end, the purpose of this study was to estimate the direct effects of college attendance on time spent on volunteer experiences after graduation on a nationally representative sample of African American college graduates. Accordingly, data from the 1993/1997 Baccalaureate and Beyond Longitudinal Study (B&B: 1993/1997) were utilized to estimate the direct effects of factors influencing student development and educational outcomes on volunteer experiences for African American college graduates.

THEORETICAL FOUNDATION

For many years, scholars have promulgated and debated views regarding the underlying structures, motivations, and rationales to explain why, how, and to what degree persons participate in volunteer activities (Musick et al., 2000). In an article by Wilson (2000) which discussed scholarly ideas presented over the years to explain why people volunteer, he noted that individuals volunteer for a variety of reasons such as personal attributes, interpersonal resources, and by making rational choices involving tangible and intangible resources. Among the many theories and variables utilized to explain why people devote their time to participate in volunteer activities, Wilson focused heavily on the degree to which an individual's human capital accounts for differences in volunteer experiences.

Human capital refers to physical and conceptual resources (e.g., information, values, skills, etc.) which can be exchanged in a variety of settings and environments for desirable experiences and outcomes (Becker, 1993; Schultz, 1971). Educational attainment (formal and informal) has been viewed as one of the most significant investments an individual can make to accumulate higher levels of human capital (Becker, 1993). A detailed description and thorough discussion of the predictive nature of this theory is abundant in the research literature (Becker, 1993; Knox et al., 1993; Schultz, 1971) and suggests that individuals with a college education are more likely to participate in volunteer activities than those individuals who did not attend college.

Because the present study focused on college graduates, and given a substantial amount of research that seems to support the view that individuals make decisions based on their financial, educational, and other resources, human capital

theory is a useful concept to better understand the nature of volunteer activity. Additionally, human capital theory helps to explain why individuals with higher incomes and more education participate in more volunteer activities (Wilson, 2000). Furthermore, the national study of volunteering conducted by the United States Department of Labor (2007) also supports this contention, because these data show that people who are employed full-time are more likely to volunteer and spend more time engaging in volunteer activities than people who work on a part-time basis. The importance of human capital theory in explaining volunteer behavior is also supported by data from Tables 1 and 2, which clearly indicate that educational attainment is associated with the amount of time people spend volunteering. Moreover, Wilson (2000) advanced the view that human capital theory helps to explain racial differences in volunteering.

In light of the fact that the present study is interested in examining the effects of college on the volunteer experiences of African American college graduates, it seems plausible that to ground this investigation solely on the basis of human capital theory would constitute a severe limitation in this research. In contrast, this discussion also considers the role of altruism in explaining why individuals volunteer. In the past twenty years, increased research has addressed the impact of altruism on helping behaviors and volunteering (Rushton & Sorrentino, 1981; Wakefield, 1993; Winniford et al., 1997). According to Wakefield, altruism is demonstrated by helping individuals or groups for the exclusive purpose of benefiting particular individuals or groups. This operational definition of altruism and the research that surrounds this concept suggests that some individuals engage in volunteer activities for the purposes of contributing to the personal and social development of other individuals, organizations, and/or institutions. Given the research on the influence of religion and spirituality for African American students (Constantine, Miville, Warren, Gainor, & Lewis-Coles, 2006; Constantine, Wilton, Gainor, & Lewis, 2002; McEwen, Roper, Byrant, & Langa, 1990; Walker & Dixon, 2002), it is reasonable to infer that perhaps some African American students who volunteer may do so altruistically in an attempt to improve the plight and conditions of others in a manner consistent with their spiritual beliefs. Accordingly, subsequent sections of this manuscript recognize the potential relevance of altruism as an additional explanatory framework to provide the necessary context for this study.

METHOD

Data Source

Student and institutional data for the present study was drawn from the Baccalaureate and Beyond Longitudinal Study (B&B: 1993/1997) (Green, Myers,

Veldman, & Pedlow, 1999). B&B: 1993/1997 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, post-college education experiences and outcomes, and career attainment. The student cohort, who constituted the primary sampling unit in B&B: 1993/1997, was based on the 1993 National Postsecondary Student Aid Study (NPSAS). The NPSAS is a nationally representative database designed to study how college students and their parents or guardians finance the costs of higher education. Using NPSAS 1993 as the base-year cohort, the B&B: 1993/1997 student cohort consisted of a representative sample of approximately 11,162 graduating seniors. The following data were collected from the base-year cohort:

1. precollege characteristics and background information,
2. institutional characteristics,
3. parent data, and
4. student transcript data (Green et al., 1999).

To provide some adjustment for potential sample bias caused by nonresponse and disproportionate probabilities of sample selection in the sample of students and schools selected, sample weights were developed.

First Follow-Up and Second Follow-Up Data Collection of B&B: 1993/1997

Consistent with the base-year sample design, the first follow-up data collection resurveyed base-year students in 1994 (1 year after the base-year data collection) to obtain information pertaining to their post-undergraduate transition experiences. In addition, data were collected on students' marital status and graduate education experiences. Of the approximately 11,000 students who participated in the base-year survey, approximately 10,000 students participated in the first follow-up data collection (Bradburn & Berger, 2002; Green et al., 1999). In 1997 (4 years after the base-year data collection) students were resurveyed to obtain additional information about their post-undergraduate experiences to determine how those experiences influenced important work-related outcomes (Bradburn & Berger, 2002; Green et al., 1999). Of the students who participated in the base-year follow-up data collection, approximately 10,000 students participated in the second follow-up data collection. In the present study, data from 205 African American students were analyzed (154 females and 51 males). This particular sample, employing the weight variable from the B&B: 1993/1997 data, represented approximately 24,000 African American students who graduated from college in 1997.

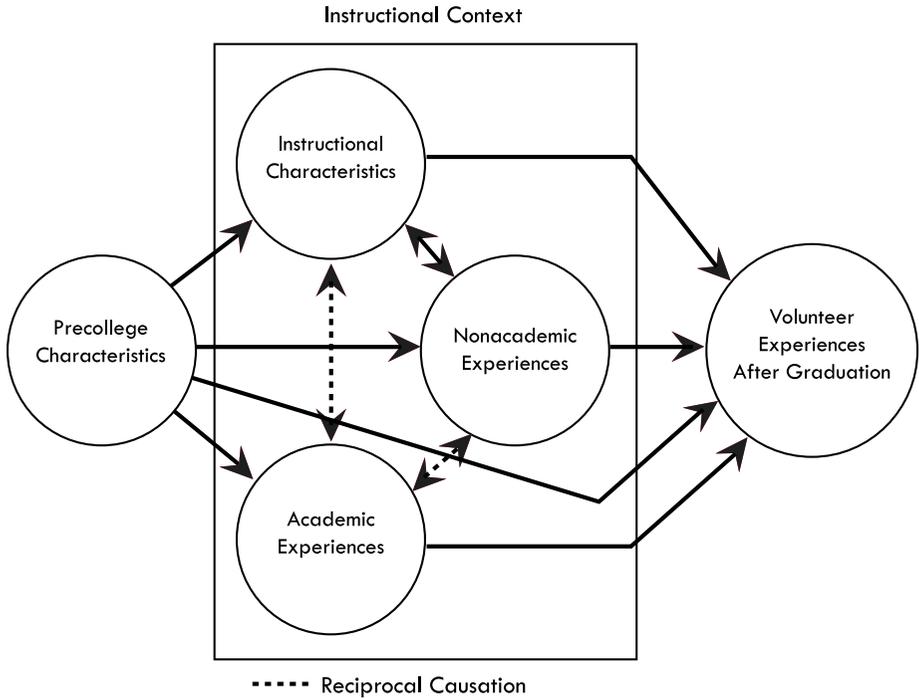
Methodological Framework

The methodological framework for this study was based on numerous investigations of research on the effects of college on student development, educational outcomes, and labor market outcomes (Astin, 1993; Chickering & Reisser, 1993; Pascarella & Terenzini, 1991, 2005). Overall, this body of research suggests that at least four sources of influence must be considered in attempting to understand the impact of college on student outcomes. These sources of influence were:

1. precollege characteristics,
2. institutional characteristics,
3. students' academic experiences in college, and
4. students' nonacademic experiences in college (Pascarella & Terenzini, 1991, 2005; Terenzini, Pascarella, & Blimling, 1996; Terenzini, Springer, Pascarella, & Nora, 1995).

As such, the methodological framework in this study was based, in part, on the notion that student outcomes were a function of precollege characteristics and background factors, institutional characteristics, academic factors, and nonacademic factors. The methodological framework for this study was used to select appropriate variables to include in the analytical model to estimate the effects of college on time spent volunteering after graduation.

Figure 1. Methodological Framework of the Study



VARIABLES

Dependent Variable

This study sought to assess the impact of college on African American college graduates' volunteer experiences. Thus, the dependent variable was measured by the amount of time African American college graduates spent pursuing volunteer activities. Accordingly, the dependent variable utilized in the study was a continuous variable based on African Americans' self-reports of the number of hours spent volunteering after college ($M = 12$, $SD = 14$).

Independent Variables

Based on the methodological framework and existing research, this study incorporated a number of independent variables. The first set of independent variables consisted of students' precollege characteristics:

1. age,
2. gender,
3. parents' educational attainment, and
4. income.

The second set of variables consisted of characteristics of the institution:

1. institutional control,
2. student enrollment, and
3. college racial composition (i.e., attended a HBCU or a PWI).

Students' academic experiences constituted the third set of independent variables:

1. college major and
2. grade point average.

Students' nonacademic experiences in college constituted the fourth set of independent variables:

1. hours spent working per week in college and
2. hours spent volunteering during the senior year in college.

Precedent for using these independent or predictor variables to estimate the influence of college can be found in other research investigations estimating the impact of college attendance on student outcomes (Astin et al., 1999; Pascarella & Terenzini, 1991, 2005). Operational definitions of the dependent and independent variables are shown in Table 5. Selected descriptive statistics of the dependent and independent variables are reported in Table 6.

Table 5. Operational Definitions of Variables from the B&B: 1993/1997

DEPENDENT VARIABLE

Average Hours Spent Volunteering After College: A continuous variable based on a college graduate's self-report of the number of hours spent volunteering after college.

INDEPENDENT VARIABLES

Precollege Characteristics

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

Gender: A categorical variable was coded: 1 = female; 0 = male.

Parent's Educational Attainment: A categorical variable based on the highest educational level attained by either parent was coded: 1 = Less than high school; 2 = High school graduate or equivalent; 3 = Some college; 4 = Associate's degree; 5 = Bachelor's degree; 6 = Master's degree; 7 = Advanced degree (e.g., Doctoral degree, and/or First-Professional degree).

Income: A continuous variable based on a student's total family income.

Institutional Characteristics

Institutional Control: A categorical variable was coded: 1 = Attended a public institution; 0 = Attended a private institution.

Student Enrollment: A continuous variable based on the full-time student enrollment during the 1992–1993 academic year.

College Racial Composition of the Institution: A categorical variable was coded: 1 = Attended a historically Black college and university; 0 = Attended a predominantly White institution.

Academic Experiences

College Major: A categorical variable based on a student's self-report of his or her major in college was coded: 1 = social science and business (e.g., humanities, social/behavioral sciences, education, business/management); 0 = science, engineering, and other (e.g., life sciences, physical sciences, math, computer/information science, engineering, health, vocational/technical, other technical/professional).

Grade Point Average: A continuous variable based on a student's cumulative grade point average. The grade point average was reported by the institution and was based on a 4.0 scale.

Nonacademic Experiences

Hours Per Week Spent Working: A continuous variable based on a student's self-report of the number of hours worked per week in the senior year.

Average Hours Spent Volunteering During College: A continuous variable based on a student's self-report of the number of hours spent volunteering during the senior year.

Analytical Techniques

Employing ordinary least squares regression, the dependent variable was regressed on the entire set of independent variables (Pedhazur, 1997). Because the sampling procedures utilized to construct the B&B: 1993/1997 sample were based on complex sampling procedures (Bradburn & Berger, 2002; Broene & Rust, 2000), *AM Statistical Software* was used to analyze all data using the appropriate weight variable and design effects variables, based on the guidelines outlined in the *Baccalaureate and Beyond Longitudinal Study: 1993/97 Second Follow-Up Methodology Report* (Green et al., 1999). Due to the fact that the small unweighted sample size decreased statistical power and increased the likelihood of making a Type II error, results were reported significant at $p < .10$ (Hays, 1994).

Table 6. Selected Descriptive Statistics for the African American College Graduates in the Sample

Dependent Variables	Mean	Standard Deviation
Average Hours Spent Volunteering After College	12	14
Independent Variables		
Age	25	7
Family Income	\$32,148	\$29,001
Student Enrollment	10,877	10,258
Grade Point Average	2.78	.55
Hours Spent Working	18	15
Average Hours Spent Volunteering During College	5	8

RESULTS

In this study, I estimated the direct effects of college on the amount of time that African Americans spent volunteering after college. Controlling for an extensive set of independent variables, African Americans' volunteer activities were significantly impacted by the amount of time they spent engaging in volunteer activities during college. More specifically, the study showed that the amount of time African Americans spent pursuing community service and volunteer activities during their senior year in college negatively impacted the amount of time they spent volunteering after college ($B = -.13, p < .10$). Also, the results showed that college major played a role in the number of hours African American college graduates spent volunteering four years after graduation. Students who majored in social science-related disciplines and business spent more time volunteering than their peers who majored in science, engineering, and technical/professional disciplines ($B = 3.23, p < .10$).

The limitations of this research study which may impact the generalizability of the study's findings include the following:

1. the institutional sample did not include all postsecondary institutions;
2. the student sample may not reflect the volunteering experiences of all African American college graduates because only data from graduates of four-year institutions were analyzed in the present study; and
3. some of the data used in this study were based on information reported by the student (Anaya, 1999; Pike, 1995, 1996).

Furthermore, there may have been other precollege characteristics, institutional characteristics, and college experiences that were not included in the regression model that may have also explained additional variance in time spent on volunteering for African American college graduates such as precollege volunteer experiences.

DISCUSSION

The primary aim of this study was to estimate the effects of an array of precollege characteristics, institutional characteristics, college experiences, and post-undergraduate experiences on the amount of time African Americans spent volunteering after college. Accordingly, a variable indicating the extent to which African Americans engaged in volunteer experiences four years after college was regressed on a host of independent variables that have been shown to impact college student outcomes in general and volunteer experiences in particular (Astin et al., 1999; O'Brien et al., 1994; Pascarella & Terenzini, 1991, 2005). The results of this study revealed that volunteer experiences in college significantly influenced time spent volunteering after college for African Americans. Moreover, it was found that participation in community service and volunteer activities during college was negatively related to the amount of time African Americans participated in volunteer activities after college. Descriptive data from this study also revealed, however, that African American college graduates reported that they spent twice as much time participating in volunteer activities after college as they did while in college (12 hours and 5 hours, respectively). Given these findings, it suggests that additional research is needed to probe this issue and examine African American college students' volunteer experiences as well as African American college graduates' volunteer experiences to further investigate the study's findings. It should also be noted that the findings from the present study were somewhat consistent with a national study conducted

by researchers at the Higher Education Research Institute at the University of California, Los Angeles (Vogelgesang & Astin, 2005) which showed that, based on data from more than 8,000 persons who completed a survey in 2004 (six years after completing an initial freshman survey), college graduates were less likely to participate in volunteer activities after graduation than while they attended school.

In light of other national studies on the effects of college on volunteer experiences after college, this study's primary finding is noteworthy and requires additional research to further explore this topic. For example, in another national study involving more than 12,000 students, Astin et al. (1999) examined data from the Cooperative Institutional Research Program (CIRP) to determine whether the effects of volunteer experiences during college had persistent and enduring effects after college. Employing multivariate analyses, results from the Astin et al. study indicated that volunteer experiences during college positively influenced the amount of time that students engaged in volunteer experiences after college. More specifically, they reported the following result:

Although the simple correlation between these two variables is quite modest ($r = .22$), how much a student volunteers during college can clearly have a substantial effect on how much that student volunteers after college. Thus, spending six or more hours per week in volunteer work during the last year of college, as compared to not participating in volunteer work, nearly doubles the student's chances of being engaged in volunteer work in the years after college, and more than doubles his or her chances of spending either one, three, or six plus hours per week in postcollege volunteer/community service work. (p. 195)

Astin et al.'s findings further supports the need to expand service learning opportunities and experiences in higher education as well as increase the number of volunteer programs available to college students. However, despite the significance of the Astin et al. study, data from the present study showed that for African American students, the impact of college volunteer participation was negatively related to after-college volunteer service. This particular finding from the present study suggests that while African Americans still volunteer at high levels after college, perhaps there are factors inherent within or specific to their volunteer experiences and educational outcomes in college that may impact the time spent engaging in volunteer experiences after college. If this is true, student development professionals should begin thinking about how this is likely to occur and what personal, social, and institutional characteristics may be influencing African Americans' post-college volunteering behaviors.

Also, the present study found that college major played a role in African American students' volunteer experiences after college. While the present study included college major (not occupation) in the analyses, this particular finding seems inconsistent with Surdyk and Diddam's (1999) study of 185 college graduates, which found that occupational type did not significantly impact volunteer participation rates. The other major finding of this study is that no other variable utilized in this study significantly impacted volunteer experiences after college for African American students. This particular finding indicated that precollege characteristics (e.g., gender), institutional characteristics (e.g., college racial composition), and academic experiences (e.g., grade point average) did not substantially influence after-college volunteer experiences for African Americans. Given the small sample size in the present study, additional research is needed to confirm and extend these results.

IMPLICATIONS FOR PRACTICE AND FUTURE RESEARCH

In light of the continual need to prepare future leaders, democratic citizens, and volunteers in our diverse and multicultural society, this study is important in that it sought to explore the impact of college attendance on the extent and magnitude of African American college graduates' participation in volunteer experiences. The goals of this research resonate with Boyer's (1987) contention that "[i]n the end, the quality of the undergraduate experience is to be measured by the willingness of graduates to be socially and civically engaged" (pp. 278–279). Also, because prior research has indicated that racial and ethnic minority groups are least likely to volunteer in community organizations (Hayghe, 1991; United States Department of Labor, 2003, 2004, 2005, 2007), this study is extremely important in helping to identify the factors that may influence African American college students to participate in volunteer organizations after graduation.

The findings from this study shed light on the primary indicator of volunteer experiences for African American college graduates. Thus, this study will permit researchers and institutional leaders to begin thinking of ways to facilitate the recruitment and retention of African American volunteers at the local, state, and national levels. One approach to begin this effort might be to connect to and explore the volunteer experiences of African American college students in an attempt to better understand the quality of these experiences. Furthermore, higher education and student affairs researchers as well as student affairs professionals should survey and interview African American students and conduct in-depth analyses that would deeply investigate African American students' perceptions of volunteering in order to examine African American students' plans for long-

term volunteer service after college. By employing these approaches, quantitative data as well as qualitative data would exist that could shape interventions and related programs designed to ensure that African American students' volunteer experiences might lead to continued volunteer service after college. Moreover, in light of the study's findings, future research should investigate the effects of college on African American students' civic participation and voting practices during and after college. These future studies will be of interest to higher education and student affairs researchers and may ultimately lead to additional research that will continue to explore how higher education is serving the public good.

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