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## Exploring the Impact of Historically Black Colleges in Promoting the Development of Undergraduates' Self-Concept

Joseph B. Berger    Jeffrey F. Milem

*The purpose of this study was to increase understanding of how institutional context affected the development of self-concept in a sample of 273 African American college students, 67% of whom were female. The findings from this study suggest that students attending church affiliated historically Black colleges develop significantly higher self-ratings in three domains of self-concept—psychosocial wellness, academic, and achievement orientation—than do students attending similar predominantly White institutions.*

Self-concept among undergraduates tends to increase over the collegiate experience (Pascarella & Terenzini, 1991). However, the development of self-concept varies among different types of students and their experiences of different levels and types of involvement (Astin, 1977; Pascarella & Terenzini, 1991). Although student entry characteristics and involvement experiences in college seem to have the greatest impact on the development of self-concept, institutional differences can play a role for particular types of students (Smart, 1985; Smith, 1990). Pascarella and Terenzini found discrepancies in studies of undergraduate self-concept involving students who attended historically Black colleges and universities (HBCs) versus students who attended primarily White institutions (PWIs). For example, Astin (1977) found smaller than expected gains in self-concept at HBCs, whereas Pascarella, Smart, Ethington, and Nettles (1987) and Fleming (1984) found evidence of positive indirect effects that accrue to students who attend HBCs.

Traditionally, the general value of HBCs has been a matter of controversy. For example, some critics have asserted African American students

may receive a less rigorous and well rounded education at HBCs than they do at PWIs (Jencks & Reisman, 1968; Sowell, 1972). Moreover, these critics have argued that HBCs might be better off becoming secondary schools or abandoning their mission altogether (Jencks & Reisman). Claims like these are no longer made with such bold transparency; nonetheless negative images of HBCs continue to appear in the broader educational policy environment. Evidence of negative perceptions can be found in the continued attacks levied at public HBCs and in the ongoing lack of support for many private HBCs.

A number of studies have confirmed that HBCs make important contributions to American higher education because of the educationally powerful environments they provide for students (Allen, 1991; Berger, 1997; Gurin & Epps, 1975; Jackson & Swan, 1991; MacKay & Kuh, 1994). Moreover, these environments generally do a better job of promoting growth and development for African American students than do PWIs in a wide range of student outcomes, including cognitive development, academic achievement, educational aspirations, degree attainment, and college satisfaction (Allen, 1991, 1992; Astin, 1993; Bohr, Pascarella, Nora, & Terenzini, 1995; Fleming, 1984; Gurin & Epps; Jackson & Swan; Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1996). The large body of evidence demonstrating the positive effects of attendance at HBCs suggests that self-concept is another outcome that would be positively affected by attendance at HBCs.

Given the wealth of empirical evidence that demonstrates the educational benefits that accrue to African Americans attending HBCs, and given the past controversies regarding the development

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of self-concept, the development of self-concept for students attending HBCs in contrast to students at PWIs must be revisited.

The study of the development of self-concept during the undergraduate years has been an important part of college outcomes literature for years (Pascarella & Terenzini, 1991). Despite numerous studies, the study of self-concept remains in disarray (Hansford & Hattie, 1982; Pascarella & Terenzini). Pascarella and Terenzini, in their review of studies on the development of self-concept in college, noted the difficulty in distinguishing between self-concept and other constructs, such as self-esteem, in existing literature. Some of the disarray has stemmed from the fact that self-concept has been studied from both psychological and sociological perspectives. Recent psychological studies have been focused narrowly on academic self-concept (e.g., Gribbons & Hocevar, 1998; Pajares & Miller, 1994) or on self-concept related to social disorders such as anxiety and anorexia (e.g., Johnson & Petrie, 1996; Levy & Hadley, 1998). These approaches are not appropriate for examining the more general development of self-concept, particularly when external sources of influence, such as attendance at an HBC, are of primary interest.

Even within the realm of studies that use sociological approaches, different researchers define self-concept in different ways. Pascarella and Terenzini (1991) defined self-concept as a "relational term that is used to denote students' judgments of their competence or skills (whether academic or social) *relative to those of other students*" (p. 171). Pascarella and Terenzini derived this definition of self-concept from an operational definition of the term in existing literature. They identified two major types of self-concept that pertain to the study of college outcomes—academic and social—based on earlier studies (Pascarella et al., 1987; Smart & Pascarella, 1986). Smart and Pascarella identified 11 self-rating items that could be formed into three self-concept subscales (Academic, Social, and Artistic) from the 1971 and 1980 Cooperative Institutional Research Program (CIRP) surveys.

Astin (1977) also used the self-rating items

from the CIRP surveys to develop self-concept measures. He generated his measures of self-concept empirically and maintained that numerous categories of self-concept exist and are affected by the collegiate experience. Using CIRP data from the late 1960s, Astin (1977) derived four self-concept factors—Political Liberalism, Interpersonal Self-esteem, Intellectual Self-Esteem, and Self-Criticism. Included in this 1977 analysis were seven items from the survey that did not load high enough on any of the four factors. In a follow-up study that used more recent data, Astin (1993) redefined his categories of self-concept to include four basic categories—Drive to Achieve, Writing Ability, Physical Health, and Emotional Health. He also identified six personality types that are related to self-concept. One of these, scholarship, Astin (1993) also referred to as intellectual self-concept. Astin is one of the few researchers to develop an empirically based definition of self-concept and its subconstructs; nonetheless, some confusion exists as to whether these are true measures of self-concept or are more directly related to personality types. In addition to lack of clarity and consistency regarding these measures, Astin's schema includes so many categories related to self-concept that they cannot be used easily in further studies.

The CIRP self-rating scales were also used to define a third set of self-concept measures (Astin & Kent, 1983). In this study, the authors used factor-analytic techniques to derive three measures of self-esteem—Leadership, Social, and Academic. However, the authors provided no statistical information about the results of the factor analysis, and the results of the factor analysis do not appear to be conceptually pure. For example, items related to intellectual self-confidence and writing ability are part of the leadership scale rather than the academic scale. Although these scales were derived empirically, additional evidence regarding their construction would be helpful in determining whether they can be used as is, or if they need modification before being used in future studies.

The consistent use of CIRP data as the basis for developing measures of self-concept in college largely arises from the fact that this is

one of the few longitudinal surveys that includes items that can be used to measure aspects of self-concept for college students. However, existing studies have developed operational definitions of self-concept by creating scales based on data from samples that are composed of predominantly White students. One major criticism of much of the existing theory and research on student development and college impact is that it has largely been derived from White students, coupled with a substantial lack of theory that has been empirically generated and tested with non-White populations (Evans, Forney, & Guido-DiBrito, 1998; McEwen, 1996).

Proper measures of self-concept are necessary; however, the focus of studies has been and should be on the study of the *process of change* in self-concept during the college years. The academic and social systems of a campus seem to exert the most powerful effects on self-concept during the college years (Pascarella & Terenzini, 1991; Smart & Pascarella, 1986). This is consistent with other literature on college outcomes that emphasizes the important role that the academic and social systems of a campus play in student persistence (Tinto, 1975; 1993), socialization (Weidman, 1989), and other outcomes (Astin, 1991; 1993). Additionally, studies have demonstrated that students are more likely to participate in different types of academic and social activities depending on whether they attend an HBC or a PWI (Berger, 1997; Berger, 2000; DeSousa & King, 1992; Mackay & Kuh, 1994; Watson & Kuh, 1996).

Interpersonal relationships form the bridge between individual dispositions and institutional tendencies, and together, these factors determine individual student outcomes. The way a student perceives and responds to events in the college setting will differentiate the college experience (Allen & Haniff, 1991, p. 108). Hence, to document and to understand fully the process of change in self-concept for undergraduates, researchers must include appropriate measures of student involvement experiences in college.

HBCs appear to provide a very different environment in which the educational process occurs for African American students, and HBCs promote a variety of positive effects on the

educational outcomes for students who attend them (Allen, 1991, 1992; Astin, 1993; Fleming, 1984; Gurin & Epps, 1975; Jackson & Swan, 1991). Although the effects of institutional size, type of control, and selectivity on the development of self-concept have been addressed in previous studies (Astin, 1977; 1993), differences between HBCs and PWIs have not been examined.

The conceptual framework used in this study was derived from a framework that Weidman (1989) developed for understanding the undergraduate socialization process. The methodological plan has been used in college impact studies, including Astin's studies on the development of self-concept (1970a, 1970b, 1977, 1991, 1993). Additionally, concepts from other studies (Astin & Kent, 1983; Smart & Pascarella, 1986) have been incorporated as a means of delimiting the important concepts and variables that should be considered in an investigation of self-concept. The basic model (see Astin, 1977, 1993) was built on the assumption that self-concept, as an outcome of the college experience, is affected by student entry characteristics as inputs and by two types of campus environment measures: type of college attended (HBC vs. PWI) and variables measuring types of involvement behaviors.

Our study was a sociological examination of the development of self-concept in African American undergraduates at religiously affiliated HBCs. The guiding research questions were: (a) Using existing measures of self-concept, can the construct of self-concept be clarified and defined as it pertains to African American students? and (b) Do levels of self-concept for African American students who attend HBCs differ from the levels of self-concept for African American students who attend PWIs? The first question was exploratory and the working hypothesis for the second question was that African American students attending the HBCs in this study would develop higher levels of self-concept than their counterparts at PWIs.

## METHOD

The sample was comprised of eight church-related liberal arts colleges that are members of

an educational consortium. The institutions are similar in size and focus. Each institution participated in the 1992 Cooperative Institutional Research Project's (CIRP) Freshman Survey and in the 1996 follow-up of the entering class of 1992, the College Student Survey (CSS). Six of the institutions are predominantly White and two are historically Black. These institutions were selected on the basis of their participation in the consortium. Although this limits the generalizability of the sample, it also provides a rare opportunity to collect this type of data from HBCs, given the limited amount of previously existing longitudinal data on students who attend HBCs (Allen, 1992).

For this study we used a longitudinal student data set comprised of information from the CIRP 1992 Student Information Form (SIF) that surveyed all full-time entering students and the 1996 CSS of seniors. The SIF was sent by the Higher Education Research Institute at UCLA to campuses during the Spring and Summer of 1992 for distribution to new students during orientation or during the first few weeks of the Fall term. The CSS is a follow-up survey that can be combined with the SIF to provide longitudinal data for analyses of a broad range of student experiences and outcomes (Hurtado, Astin, Korn, & Dey, 1989; Milem, 1994). The CSS was administered to all seniors in the spring of 1996. 781 students (54%) of the population responded to both surveys. Of the students in the final sample, 273 were African American. Given that the purpose of this study was to focus on the development of self-concept at HBCs versus PWIs, only the 273 African American students were selected for the analyses in this study. Students attending HBCs ( $N = 229$ ) comprised 84% of the sample and students at PWIs constituted 16% of the sample. 67% of these students were female and the average age of the students in the sample was 22.3.

### Procedure

A series of structural equations were conducted using blocked hierarchical ordinary least-squares regression to estimate the direct effects of the constructs in the proposed model. This method of statistical analysis enabled us to assess which

individual variables had the biggest effect on the development of self-concept while allowing us to look at the effects of groups of variables. In other words, by using this statistical technique we were able to estimate how much each variable contributed to the development of each measure of self-concept, and at the same time observe how the different groups of independent variables (student entry characteristics, institutional type, and involvement behaviors) contributed to the development of self-concept. Factor analysis was used to identify latent measures of the self-concept constructs that are used as the dependent variables in the three equations. Factor analysis enabled us to condense a large number of items into smaller groups that are easier to manage and interpret. In this study, we were able to reduce 26 items into three groups of items, with each group representing a different dimension of self-concept. After the dependent variables were identified, three regression equations were estimated, one for each of the self-concept measures (Psychosocial Wellness, Academic Ability, and Achievement Orientation).

### Factor Analysis

The dependent variables were derived through factor analysis of 26 items included on the SIF and CSS. These items were rotated orthogonally, using the varimax method. A three-factor solution emerged as the most parsimonious from the factor analysis.

The first factor, *Psychosocial Wellness* self-concept, is composed of six items related to students' self-concept of their emotional and physical health, social and intellectual self-confidence, understanding of others, and cooperativeness. The alpha reliabilities were 0.74 for the pretest and 0.80 for the posttest scales. The second factor, *Achievement Orientation* self-concept, was composed of three items measuring students' self-concept of their drive to achieve, leadership ability, and competitiveness, with alpha reliabilities of 0.64 and 0.66, respectively. The final factor was an *Academic Ability* self-concept and included four items related to student self-perceptions about artistic, writing, public speaking, and academic abilities. The

alpha reliabilities for this construct were 0.56 and 0.63, respectively.

### Regression Equations

Regression analyses were conducted using three blocks of independent variables: student entry characteristics, institutional data, and student involvement behaviors. Measures of gender, family income, high school grade point average, and political views were included as entry characteristics along with pretests for our measures of self-concept. The second variable block included a dichotomous measure indicating whether the college institution attended by the student was historically Black. The final block of independent variables included individual items and factorially derived scales representing a variety of involvement behaviors.

## RESULTS

Table 1 provides variable descriptions and descriptive statistics for all of the variables used in this study. Tables 2, 3, and 4 display the results of the regression equations for the three dependent variables—Psychosocial Wellness, Academic Ability, and Achievement Orientation, respectively.

### Predicting Psychosocial Wellness

Among the entry characteristics, we found that two independent variables served as significant predictors of student self-concept regarding their psychosocial wellness. The pretest for this measure ( $\beta = .16$ ) was the largest positive predictor among entry characteristics of the outcome although being a woman negatively predicted ( $\beta = -.10$ ) this subscale. Attending an HBC was the strongest predictor of psychosocial wellness ( $\beta = .21$ ) in the regression equation. We were interested to note that this variable has greater predictive value than the pretest measure of psychosocial wellness. The final block of variables included items that measure the type and extent of student involvement in a range of activities while in college. In the final solution of the regression equation we saw that three of these measures served as significant positive predictors of the outcome. Academic support

from faculty ( $\beta = .18$ ), same race contact ( $\beta = .11$ ), and collaborative learning ( $\beta = .11$ ) each serve as significant positive predictors of students' sense of psychosocial wellness. The regression model explained 20 % of the variance in our dependent variable at its final solution with the greatest amount of variance in the outcome explained by the involvement measures.

### Predicting Academic Ability

Students' assessment of their level of academic ability at the time they entered college served as a significant positive predictor of their level of academic ability after 4 years in college ( $\beta = .27$ ). In addition, students with higher high school GPAs were also more likely to report greater self-confidence in the area of academic ability after 4 years ( $\beta = .10$ ). No other entry characteristics served as significant predictors of the outcome.

As in the previous regression equation, students who attended HBCs were more likely to rate themselves higher on academic ability 4 years after entering college than did students who attended PWIs ( $\beta = .19$ ). Moreover, the magnitude of this effect increased (from  $\beta = .17$  to  $.19$ ) after the final block of variables entered the regression equation.

Four measures of undergraduate involvement entered the regression as significant predictors of the outcome. Academic support from faculty ( $\beta = .19$ ), academic effort ( $\beta = .12$ ), and participation in student government ( $\beta = .16$ ) all serve as positive predictors of self assessments of academic ability. Conversely, more time spent socializing with peers ( $\beta = -.11$ ) served as a negative predictor of the dependent variable. The regression model at final solution explained 23 % of the variance in the dependent variable.

### Predicting Achievement Orientation

Interestingly, student self-assessments of achievement orientation at the time they entered college did not serve as a significant predictor of this measure after 4 years. In fact, the only entry characteristic that did predict the dependent variable was gender. Women were less likely to report increases in their achievement orientation after 4 years than were men ( $\beta = -.21$ ).

TABLE 1.  
Variables Definitions with Means and Standard Deviations

Variable Name	
1. Income	Single item measuring family income during the previous year 1 ( <i>less than \$6,000</i> ) to 14 ( <i>\$200,000 or more</i> ). SIF item.  $M = 5.80$ $SD = 2.67$
2. Political View: Liberal	Single item asking students to characterize their political view 1 ( <i>far right</i> ), 2 ( <i>conservative</i> ), 3 ( <i>middle of the road</i> ), 4 ( <i>liberal</i> ), 5 ( <i>far left</i> ). SIF item.  $M = 3.19$ $SD = 0.83$
3. High School Grade Point Average	Single item self-reported measure of high school grade point average 1 ( <i>D</i> ) to 8 ( <i>A or A+</i> ). SIF item.  $M = 5.06$ $SD = 1.64$
4. Gender: Female	Single item identifying students' gender 1 ( <i>male</i> ), 2 ( <i>female</i> )  $M = 1.67$ $SD = 0.44$
5. Psychosocial Wellness	Four-item scale measuring 1 ( <i>lowest 10%</i> ) to 5 ( <i>highest 10%</i> ) when student compares self with persons their own age; students' psycho-social wellness self-concept, including (1) social self-confidence, (2) understanding of others, (3) cooperativeness, and (4) emotional health. SIF items for entry measure and CSS items for exit measure. Alpha reliability = .69 (entry) and .81 (exit).  Entry: $M = 15.51$ $SD = 2.31$ , Exit: $M = 16.23$ $SD = 2.39$
6. Academic Ability	Four-item scale measuring 1 ( <i>lowest 10%</i> ) to 5 ( <i>highest 10%</i> ) when student compares self with persons their own age; students' academic ability self-concept, including (1) intellectual self-confidence, (2) academic ability, (3) writing ability, and (4) public-speaking ability. SIF items for entry measure and CSS items for exit measure. Alpha reliability = .64 (entry) and .77 (exit).  Entry: $M = 14.32$ , $SD = 2.26$ Exit: $M = 15.53$ $SD = 2.42$
7. Achievement Orientation	Three-item scale measuring 1 ( <i>lowest 10%</i> ) to 5 ( <i>highest 10%</i> ) when student compares self with persons their own age; students' achievement orientation, including (1) drive to achieve, (2) competitiveness, and (3) leadership ability. SIF item for entry measure and CSS items for exit measure. Alpha reliability = .74 (entry) and .76 (exit).  Entry: $M = 11.16$ $SD = 2.15$ , Exit: $M = 12.00$ $SD = 1.99$
8. Historically Black College	Single item measure indicating whether student's college is an historically Black college 2 ( <i>yes</i> ), 1 ( <i>no</i> ).  $M = 1.88$ $SD = 0.24$

*table continues*

TABLE 1. *continued*  
Variables Definitions with Means and Standard Deviations

Variable Name	
9. Student Government Participation	Two-item scale indicating level of student's participation in student government, including (1) whether the student participated in student government while in college and (2) whether the student was elected to office while in college. Alpha reliability = .70.  $M = 1.23$ $SD = 0.42$
10. Academic Effort	Two-item scale indicating level of student's academic effort, including (1) hours per week spent studying during the past year and (2) hours per week spent in classes and labs during the past year. Alpha reliability = .68.  $M = 10.43$ $SD = 3.28$
11. Multi-Cultural Activities	Four-item scale indicating student's level of participation in multi-cultural activities, including (1) whether a student participated in a racial/ethnic student organization while in college, (2) whether a student participated in a racial/cultural awareness workshop while in college, (3) whether a student enrolled in a racial/ethnic studies course while in college, and (4) whether a student enrolled in a women's studies course while in college. Alpha reliability = .56.  $M = 5.07$ $SD = 1.10$
12. Collaborative Learning	Three-item scale indicating level of student's participation in collaborative learning, including (1) how frequently student studied others, (2) worked on group project in class, and (3) discussed course with other students. Alpha reliability = .54.  $M = 7.89$ $SD = 1.12$
13. Club/Group Participation	Single item indicating how many hours per week during the last year student spent involved in club/group participation 1 ( <i>none</i> ) to 7 ( <i>16 or more</i> ).  $M = 2.83$ $SD = 1.86$
14. Socializing with Peers	Single item indicating how many hours per week during the past year student spent socializing with friends 1 ( <i>none</i> ) to 7 ( <i>16 or more</i> ).  $M = 4.80$ $SD = 1.84$
15. Faculty Support: Personal	Four-item scale indicating how often their professors provided a student with (1) respect, (2) emotional support and encouragement, (3) a letter of recommendation, and (4) help cutting through red tape. Alpha reliability = .68.  $M = 9.03$ $SD = 1.93$

*table continues*



TABLE 1. *continued*  
Variables Definitions with Means and Standard Deviations

Variable Name	
16. Faculty Support: Academic	<p>Eight-item scale indicating how often their professors provided a student with (1) encouragement to pursue graduate/professional school, (2) an opportunity to work on a research project, (3) advice and guidance about student's educational program, (4) an opportunity to publish, (5) assistance with improving study skills, (6) honest feedback about student's skills and abilities, (6) intellectual challenge and stimulation, and (8) an opportunity to discuss coursework outside of class. Alpha reliability = .85.</p> <p><math>M = 17.86</math> <math>SD = 3.64</math></p>
17. Same Race Contact	<p>Two-item scale indicating how many of student's (1) close friends and (2) study partners are of their same race. Alpha reliability = .59</p> <p><math>M = 6.49</math> <math>SD = 1.10</math></p>
18. Other Race Contact	<p>Four-item scale indicating how frequently students (1) studied with, (2) dined with, (3) roomed with, and (4) dated someone from another racial/ethnic group. Alpha reliability = .69.</p> <p><math>M = 5.58</math> <math>SD = 1.50</math></p>
19. Encountered Racial Hostility	<p>Three-item scale indicating how frequently students (1) heard faculty make inappropriate remark about minorities, (2) felt excluded from school activities because of racial/ethnic background, and (3) felt pressure not to socialize with students from other racial/ethnic groups. Alpha reliability = .70.</p> <p><math>M = 4.19</math> <math>SD = 0.59</math></p>

As with the two other regression equations, attendance at an HBC served as a positive predictor of students' assessments of their achievement orientation ( $\beta = .15$ ). As with the previous regression, the magnitude of the relationship between this measure and the dependent variable increased after controlling for the effects of the measures of student involvement (from  $\beta = .13$  to  $\beta = .15$ ).

Four measures of involvement served as positive predictors of the outcome and one measure of involvement served as a negative predictor. Academic support from faculty ( $\beta = .13$ ), academic effort ( $\beta = .14$ ), involvement

in multicultural activities ( $\beta = .11$ ), and involvement in student government ( $\beta = .15$ ) predicted increased levels of achievement orientation after 4 years. Conversely, socializing with peers ( $\beta = -.12$ ) predicted decreased levels in the outcome after 4 years. The final regression model explained 20 % of the variance in the dependent variable.

#### DISCUSSION

Taken together, the results from the statistical analyses suggest some important findings. First, three distinct dimensions of self-concept—

psychosocial wellness, academic ability, and achievement orientation—emerged as the most efficient and informative way of defining and measuring the components of this important student outcome for the African American students in this sample. Second, as expected, initial levels of self-concept were the best indicators of subsequent levels of self-concept. However, other entry characteristics and different types of involvement in college also played significant roles in shaping the development of self-concept in all three areas. The main working hypothesis for this paper, that students at HBCs would develop higher levels of self-concept, was supported in the regressions predicting all three measures of self-concept.

With regard to the relationship between institutional type (HBC vs. PWI) in facilitating increases in levels of self-concept, the findings of our analyses indicate that HBCs' provide educational environments are more beneficial than those at PWIs in helping African American students to develop increased levels of self-confidence after 4 years of college. In fact, in each of our prediction equations, institutional type (HBC) was among the strongest predictors of each self-concept subscale. Our findings and those of other studies (e.g., Allen, 1991; Berger, 2000; Fleming, 1984) suggest that this relates to the educational climate that exists at HBCs. This study provides additional support regarding the valuable role played by HBCs in promoting positive educational outcomes for the African American students who attend them.

As we considered the pattern of findings across each of the three regression equations, we noted a number of interesting results. Regarding the effect of entry characteristics, the pretest served as a significant predictor of final outcome in two of three regression equations. Although initial levels of psychosocial wellness and academic ability were statistically significant predictors of subsequent levels of these types of self-concept, the pretest for achievement orientation was not statistically significant. This finding may indicate that achievement orientation is more likely to be influenced by the collegiate experience than are the other two types of self-concept examined in this study.

TABLE 2.  
Summary of Regression Equations  
Predicting Self-Concept Subscale:  
*Psychosocial Wellness*

Independent Variables	Blocks		
	1	2	3
Pre-test	.17**	.16**	.16**
Gender: Female	-.08	-.08	-.10*
Family Income	-.09	-.04	-.07
High School Grade Point Average	-.08	-.07	-.08
Political View: Liberal	-.05	-.04	-.06
Institutional Type: HBC		.21**	.21**
Faculty Support: Academic			.18**
Faculty Support: Personal			.02
Same Race Contact			.11*
Other Race Contact			-.01
Racial Hostility			-.02
Collaborative Learning			.11*
Academic Effort			.09
Multi-cultural Activities			.06
Student Government Participation			.08
Socialization with Peers			-.09
Club/Organization Participation			.02
R <sup>2</sup>	.04*	.09***	.20***

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

TABLE 3.  
Summary of Regression Equations  
Predicting Self-Concept Subscale:  
*Academic Ability*

Independent Variables	Blocks		
	1	2	3
Pre-test	.28***	.28***	.27***
Gender: Female	-.00	-.01	-.03
Family Income	-.04	-.00	-.05
High School Grade Point Average	.09	.10*	.10*
Political View: Liberal	-.07	-.05	-.08
Institutional Type: HBC		.17**	.19**
Faculty Support: Academic			.19**
Faculty Support: Personal			.07
Same Race Contact			-.01
Other Race Contact			-.01
Racial Hostility			.02
Collaborative Learning			.06
Academic Effort			.12*
Multi-cultural Activities			.03
Student Government Participation			.16**
Socialization with Peers			-.11*
Club/Organization Participation			.04
$R^2$	.08***	.12***	.24***

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Other entry characteristics also showed some interesting patterns of findings. Women were more likely than men to report lower levels of psychosocial wellness and achievement orientation after 4 years of college. Hence, this suggested that men are at a greater relative advantage in developing self-concept than are women. This finding suggest that postsecondary educational environments continue to have embedded benefits for male students. Hence, women may not be as likely, because of their immersion in campuses with historical vestiges of male privilege, to develop higher levels of positive self-concept relative to their male counterparts.

In each of the three regression equations, African American students who attended HBCs were more likely than their peers at PWIs to report increased levels of social self-concept 4 years after entering college. Moreover, in two of three regression equations, the predictive value this measure increased after controlling for the effects of our measures of involvement. This suggests that students attending HBCs are likely to have more opportunities to become involved in the types of activities that lead to increases in self-concept.

In particular, interactions with others—faculty and peers—seem to account for much of the positive effects found at HBCs. Faculty support, in both personal and academic areas, are highly correlated with attendance at HBCs, as are involvement in student government and involvement with other students via participation in clubs or organizations. In addition, our findings suggest that even after controlling for institutional type certain types of involvement in college are significant in predicting changes in self-concept. In each of the three regression equations, students who reported receiving greater levels of academic support from faculty members were more likely to report increases in self-concept. In fact, in the regressions predicting psychosocial wellness and academic ability, this was the strongest of the involvement measures predicting self-concept.

Other involvement behaviors also appear to facilitate the development of self-concept. Higher levels of academic effort and involvement in

student government served as positive predictors of academic ability and achievement orientation. Both of these variables, academic effort and student government, represent levels of student involvement that are above and beyond expected levels. The fact that these measures were found to have strong positive effects on the development of two of the three measures of self-concept lends further support for Astin's (1985) postulates regarding the important role of involvement and reinforces Pascarella's (1985) emphasis on the importance of academic effort as a major influence on learning outcomes. This finding is consistent with Pace's (1980) notion that quality of student effort is crucial in the development of higher levels of desired outcomes in students.

Conversely, students who spent increased time socializing with their peers were less likely to report increases in their levels of academic ability and achievement orientation. However, involvement in organized activities with peers (e.g., student government and multicultural activities) have positive effects on self-concept, whereas unstructured social interactions tended to have a negative effect on the development of self-concept. This finding indicates that merely facilitating social contact among students is insufficient and potentially counterproductive to the development of desired educational outcomes, such as positive self-concept. Hence, this finding emphasizes the need for postsecondary educators and campus leaders to create purposeful and structured peer interactions to maximize the educational potential that students have for teaching each other.

This study sheds new light on ways in which researchers and educators might operationally define self-concept for undergraduate students. Given the conceptual and methodological limitations of previous definitions of self-concept, we believe that the three subconstructs that emerged from this study provide a valuable contribution. The definition offered here is methodologically and conceptually sound. In fact, each of the three subscales cover important types of educational outcomes. The Psychosocial Wellness factor focuses on the core concepts that have long been the focus of student development theorists and practitioners. The Academic Ability

TABLE 4.  
Summary of Regression Equations  
Predicting Self-Concept Subscale:  
*Achievement Orientation*

Independent Variables	Blocks		
	1	2	3
Pre-test	.09	.09	.09
Gender: Female	-.16**	-.17**	-.21***
Family Income	-.01	-.04	-.06
High School Grade Point Average	-.02	-.02	-.02
Political View: Liberal	.02	.03	.01
Institutional Type: HBCU		.13*	.15**
Faculty Support: Academic			.13*
Faculty Support: Personal			.03
Same Race Contact			-.05
Other Race Contact			.01
Racial Hostility			-.07
Collaborative Learning			.07
Academic Effort			.14*
Multi-cultural Activities			.11*
Student Government Participation			.15**
Socializing with Peers			-.12*
Club/Organization Participation			.06
R <sup>2</sup>	.04	.07*	.20***

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

subscale measures students' beliefs about their ability to perform a variety of tasks that are commonly used to assess their academic abilities. In other words, the Academic Ability subscale provides a description of how students' view themselves with regard to the core tasks that are asked of them inside the classroom. The final subconstruct, Achievement Orientation, measures how students' assess their abilities to be leaders and successes in life. American higher education has traditionally been viewed as having responsibility for the preparation of future leaders in all walks of life. Hence, taken together, these three subscales provide a comprehensive, yet concise, description of undergraduate self-concept in key areas of desired student outcomes.

The new insights gained from this study about the development of self-concept in African American students have some potentially important implications for the practice of student affairs. First, the findings from this study suggest that student affairs professionals should strive to develop programs and policies that facilitate the development of the dimensions of self-concept identified in this study. Second, the findings from this study reiterate the importance of student involvement in college life. Even after controlling for individual differences, student involvement in different campus activities (particularly student government) positively affected the development of self-concept for African American students. Finding ways to provide African American students with opportunities to become involved in these types of activities at PWIs is likely to have positive benefits regarding the development of self-concept of African American students.

Finally, this study focused specifically on African American students. For far too long African American students and other students from traditionally underrepresented groups, have been the subjects of studies using models and measures developed from research on primarily White student populations. This study developed an operational definition of self-concept by analyzing the students that are the target of the study. Hence, we can have a greater degree of confidence that the definition of self-concept used in this study is appropriate for this popu-

lation. Future uses of this definition of self-concept may provide additional information about the suitability of this operational definition for other types of students.

## LIMITATIONS

Some limitations should be kept in mind when considering the findings from this study. First, the sample of institutions in this study is composed entirely of small, private, church-related colleges and only of African American students. Hence, the results of this study may only be generalizable to this type of institution and for the types of students they enroll. Future studies should test these questions at other types of institutions and with other types of students. Second, the use of CIRP data presents some reason for caution despite its many advantages. Although CIRP represents one of the largest and most established data sets gathered from undergraduate students, this data tends to include a wide range of variables while sacrificing precision and depth of measurement for specific types of variables. Hence, CIRP data is not always an optimal source of data for studies like this one that are smaller, and more focused. Third, in this study we examined only direct effects of variables in the model. Future examination of indirect effects is likely to further illuminate the process by which HBCs and PWIs affect the development of undergraduate self-concept. Fourth, the newly developed self-concept subscales should be confirmed in other studies at a wider range of institutions to see if the same factor structure remains stable across a wider spectrum of student and institution types. Fifth, the numerical imbalance of respondents who attended PWIs versus those who attended HBCs (only 17% of the sample attended PWIs) may be a cause for concern. This imbalance warrants caution when making inferences from and drawing conclusions about the data.

The results of this study demonstrate the positive effect that HBCs exert on the development of self-concept. This finding, coupled with information gleaned from the effect of the involvement measures, suggests that what happens in college is as important, or more

important, than what African American students' bring with them to college regarding the development of a positive self-concept. The findings from this study suggest that additional research is needed to learn more about the educationally powerful learning environments found at HBCs. Given the importance of the topic, the lack of previous studies in this area, and the limitations of the data, we hope that this study serves to stimulate future research in this area. This line of inquiry may help educators to better serve the

needs of African American students at PWIs, although we suspect that it may help us to better serve all students at all institutions.

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