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Involvement, Interaction, and Satisfaction: The Human Environment at HBCUs

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Recent court decisions and legislative actions have called into question the continued existence of historically Black colleges and universities (HBCUs) as institutions with the primary mission of serving the nation's African American community (*United States v. Fordice*, 1992). While these challenges to the unique character of HBCUs have taken many forms, a primary area of contention has been the racial/ethnic composition of HBCUs' student bodies. These schools are coming under increasing pressure to reconfigure their enrollment policies to include more non-African Americans (Mixon et al., 1995; St. John, 1998; St. John & Hossler, 1998). When

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one considers the mounting challenges to educational equity for African Americans and other students of color posed by changes in admissions policies in an ever-growing portion of the United States, including California, Washington, Florida, and those states affected by the *Hopwood v. Texas* (1996) decision, it seems likely that HBCUs will become ever more important sources of educational opportunity for African-American students. Thus, HBCUs will likely become more important at the very time they face increasing threats to their very existence and missions. A better understanding of the means by which these institutions achieve success with their student population becomes vital.

The higher education literature contains numerous studies attesting to the beneficial academic and professional effects of attending HBCUs for African Americans (Allen, 1992; Astin, 1975; Astin, Tsui, & Avalos, 1996; Bonous-Hammarth & Boatsman, 1996; Davis, 1991; Fleming, 1984; Roebuck & Murty, 1993). However, although research has demonstrated that, in general, student involvement is related strongly to student success, the literature does not contain many studies examining the relationship between student involvement and satisfaction for African American students at HBCUs. Similarly, educational research has not sufficiently addressed the complex relationship between institutional support for African Americans and these students' involvement and satisfaction. With this study, we seek to expand the understanding of the relationships between the HBCU institutional climate, African American student involvement, and their satisfaction with the college experience. Our conclusion discusses the implications of our findings within the current, fragile political environment for HBCUs.

IMPLICATIONS OF THE *FORDICE* CASE

The most significant recent legal case involving the future of HBCUs is *United States v. Fordice* (1992). The Supreme Court declared that Mississippi had not done enough to end segregation and ruled that several specific aspects of higher education must be scrutinized for vestiges of segregation, including admissions standards, educational program duplication, institutional mission assignments, and the continued operation of all eight Mississippi state universities (Mixon et al., 1995). Of particular concern to the Court was the "racial identifiability" of Mississippi's institutions of higher education. The Court held that states would not be in compliance with the Court's decision until they "eradicate policies and practices traceable to the prior *de jure* system that continue to foster segregation" (*United States v. Fordice*, 1992, p. 2892).

To date, no HBCUs have been closed as a result of the *Fordice* decision. However, a second challenge to HBCUs—a shift in their historical charac-

ter and mission—stems from the portion of the *Fordice* decision requiring them to alter their admissions policies and mission statements to end racial and ethnic “segregation.” As St. John (1998) notes, *Fordice* has placed a new emphasis on student choice at the expense of the pre-*Fordice* goals of developing HBCUs while removing traces of segregation.

THEORIES OF INVOLVEMENT AND HUMAN ECOLOGY

Alexander Astin’s (1985) theory of student involvement provides the beginnings of a conceptual framework within which to understand the findings about involvement and interaction reported in the literature. According to Astin, student involvement leads to student success as students become engaged with and invest energy in their environment. Despite individual differences in the effects of involvement, Astin found consistently positive relationships between learning and academic involvement, between academic involvement and academic performance, and between peer group involvement and retention (Astin, 1993, p. 394). Astin found that almost all forms of student-to-student interaction and academic involvement lead to positive outcomes. While he did not focus explicitly on the relationship between involvement and satisfaction, his findings on the benefits of involvement indicate that involvement is linked to positive student outcomes in general, thus indicating the usefulness of further investigating the potential relationship between involvement and satisfaction.

Despite the usefulness of Astin’s theory in understanding student involvement in general, it could be refined further to embrace the unique experience of African American students. The work of Bronfenbrenner (1979) can be useful in extending Astin’s theory. Bronfenbrenner urges us to consider the *interaction* between individual and environment. In his words, “lying at the very core of an ecological orientation . . . is the concern with the progressive accommodation between a growing human organism and its immediate environment” (p. 13). He explains that this relationship must be considered in its wider social and physical context. We have attempted to bring Astin’s emphasis on student involvement to bear on Bronfenbrenner’s more general concepts of human ecology by devising the theory of *reciprocal engagement*.

This theory holds that students and their campuses exist in a relationship of mutual influence. Bronfenbrenner reminds us that environments must be studied as carefully as, and in tandem with, individuals. Because of the mutual nature of the student/campus relationship, studies of student experience will not be complete if they examine merely one side of this partnership, such as student involvement. Rather, an understanding of student experience must also include an examination of environmental factors, such as perceptions of the quality of interpersonal interactions and

other issues of campus climate. Bronfenbrenner's suggestion to focus on the interaction between students and their campus environments makes explicit what is too often buried in analyses of student/campus fit. Not only must students take active steps to become involved in their campuses, but campus communities must embrace their students in their diversity, particularity, and uniqueness. We have found our theory of reciprocal engagement useful in interpreting recent research on African American students' college experiences, and in framing our research and analyzing findings.

PRIOR RESEARCH ON HBCUS' UNIQUE ROLE

For more than thirty years, educational researchers have investigated the particular role played by HBCUs in educating African Americans. Analyzing data collected from more than 100,000 student surveys conducted in 1968 and again in 1972, Alexander Astin (1975) found that African American student isolation and alienation at predominantly White institutions (PWIs) might contribute to higher degrees of student success at HBCUs. His results have been substantiated by a host of researchers, beginning with Jacqueline Fleming, whose *Blacks in College: A Comparative Study of Students' Success in Black and White Institutions* (1984) remains foundational for those interested in African American student development, particularly as it varies among HBCUs and PWIs. Fleming's research, begun in 1977 and continuing over four years, surveyed 2,591 African Americans at HBCUs and PWIs and 388 White students at PWIs. Using quantitative and qualitative analyses, Fleming showed that African American students at HBCUs seemed to be both more comfortable and more successful in their HBCU environments. At HBCUs, they demonstrated higher academic achievement, greater satisfaction with their campus environment (including both academic and extracurricular activities), and better relationships with faculty than their counterparts at PWIs.

Several years after Fleming, Robert B. Davis (1991) used the National Study of Black College Students (NSBCS) to survey 888 African American students at HBCUs and 695 African American students at PWIs. Davis found significant differences in the ways African American students viewed their campuses and the means by which these campuses met their needs. More than twice as many African American students at HBCUs found that campus extracurricular activities reflected their interests (28% at HBCUs vs. 12% at PWIs), while significantly more African American students at PWIs reported that they "hardly ever" participated in campus activities (31% at PWIs vs. 23% at HBCUs). From these findings, Davis concluded that African Americans at HBCUs had benefited more from "social support networks" than their counterparts at PWIs.

The work of Fleming and Davis on the interaction between campus climate and African American student success has been extended by Walter Allen (1992). Allen used the NSBCS to survey 872 African American students at PWIs and 928 African American students at public HBCUs. Allen discovered that the greater success achieved by African American students at HBCUs might be attributable to a more hospitable environment at these institutions than at PWIs. In particular, African Americans at HBCUs were less likely to encounter overt racism, alienation, and isolation. Allen's research replicated Davis's conclusions regarding the supportive environment enjoyed by African Americans at HBCUs, as he found that African Americans who enjoy positive social support networks tended to have higher levels of satisfaction. Finally, Allen found that the proportion of African American students on campus had a positive effect on African American student satisfaction.

Bonous-Hammarth and Boatsman (1996) provide another study of the relationship between student experience and campus climate. Because their work is closely related to the current study, we will outline it in some detail. Bonous-Hammarth and Boatsman analyzed data from the Cooperative Institutional Research Program (CIRP), a nationwide study of full-time, first-time college freshmen administered by UCLA's Higher Education Research Institute and the American Council on Education. Using the 1985 Freshman Survey and its follow-ups, Bonous-Hammarth and Boatsman identified 1,144 African American students for their research. They found that African American students reported the lowest level of satisfaction with their education of all racial/ethnic groups surveyed. However, examining African American's reported satisfaction at HBCUs separately from PWIs shows a dramatic difference in satisfaction with the undergraduate institution: While only 65.4% of African Americans at PWIs would choose to re-enroll, 83.2% of African Americans at HBCUs would choose their undergraduate institution again. This percentage was higher than the greatest level of satisfaction reported by any ethnic group at PWIs.

After finding that African Americans at HBCUs were much more likely than their counterparts at PWIs to be satisfied with their undergraduate experience, Bonous-Hammarth and Boatsman (1996) used stepwise regression to investigate factors contributing to this difference in satisfaction. Replicating Allen's (1992) work, Bonous-Hammarth and Boatsman found that a high proportion of African Americans in the student body was a positive predictor of satisfaction for African American students at PWIs, although this proportion was not significant for students at HBCUs. Bonous-Hammarth and Boatsman's work demonstrates that, on a national level, African American students are more satisfied with their experience at HBCUs than their counterparts at PWIs. In addition, it suggests that the campus environment, as reflected in the diversity of an institution's student body, is related to this higher level of satisfaction.

The work of Alexander Astin, Lisa Tsui, and Juan Avalos (1996) provides another large-scale statistical perspective on this topic. These researchers, using the same data employed by Bonous-Hammarth and Boatsman, found that enrollment at an HBCU can enhance a student's chance of graduation when other factors such as academic preparation, institutional size, and institutional selectivity are held constant.

In summary, the higher education literature is unequivocal: African American students at HBCUs fare better and are more satisfied with their college experience than their peers at PWIs. While Astin's theory on involvement explains at least some of the benefits of HBCUs, our theory of reciprocal engagement offers a more powerful conceptual framework to explain the unique benefits of these institutions for African Americans.

The final two studies mentioned in our literature review not only expand our understanding of the role of HBCUs, but also point the way toward new research. Bonous-Hammarth and Boatsman's (1996) conclusion that African American students tend to be more satisfied with their environment at HBCUs, and the finding of Astin, Tsui, and Avalos (1996) that African Americans of similar backgrounds tend to be more successful than African American students at PWIs call for more detailed research on the nature and effect of the student/campus relationship for African American students at HBCUs and PWIs. With the current study, we hope to probe this relationship by pursuing two primary objectives:

1. To describe and analyze the student/campus relationship for African American students at HBCUs and comparable PWIs by investigating self-reported levels of involvement and satisfaction.
2. To isolate the particular role of HBCUs in African American student experience by determining whether enrollment at an HBCU adds to students' overall level of satisfaction with their college experience after statistically controlling for other relevant variables.

METHOD

Sample

Data in this study are drawn from two surveys, both administered through CIRP. Thus, in effect, these data form a more recent version of the information analyzed by Bonous-Hammarth and Boatsman (1996).¹ The data to which we had access contained responses from 15,367 of the 350,000-plus respondents to the 1993 Student Information Form (SIF), all of whom were first-time, full-time, first-year college students. These students were enrolled

¹We acknowledge with appreciation that our method is based partly on the work of Bonous-Hammarth & Boatsman (1996), although their work, unlike ours, did not focus particularly on involvement.

at over 100 institutions of higher education chosen for their representativeness of higher education as a whole in the United States. In 1997, the College Student Supplement (CSS) was mailed to 26,890 students selected from the total set of those who responded to the SIF, with preference to students attending institutions that participated in the 1995 Faculty Survey, also administered through CIRP. A response rate of 21.1% yielded 5,687 responses. As discussed below, these samples make it difficult to generalize our findings to all HBCUs; on the other hand, we believe the issues discussed here are of such importance that any information gleaned through this study will be useful for those interested in African American student satisfaction and HBCUs.

Identifying Comparable PWIs

We identified comparable PWIs by selecting only those schools with institutional characteristics roughly similar to the HBCUs under study. For example, we excluded two-year schools and research universities, since most HBCUs are four-year colleges. While these criteria do not match HBCUs and PWIs on many potentially relevant criteria, such as selectivity, geographical region, or type of control, we found it necessary to retain a broad classification to preserve sample size.

Describing Student Satisfaction and Involvement

After classifying HBCUs and identifying comparable PWIs, we used descriptive statistical procedures to meet our first research objective: to assess student involvement and satisfaction at the two types of schools we have identified, and to determine whether there are significant differences in these measures between the types of schools we have outlined above. These variables indicate factors that emerged from our literature review—particularly the work of Davis (1991), Allen (1992), and Bonous-Hammarth & Boatsman (1996)—as relevant to African American student involvement on and satisfaction with their campuses.

Identifying the Impact of Involvement on Success

To meet our second research objective, we employed logistic regression analysis. The use of this regression technique allowed us to isolate and analyze the effect of numerous student characteristics on the dependent variable—students' self-reported overall level of satisfaction as measured four years after first enrolling. By using logistic regression, we were able to isolate the effect of attending an HBCU on student satisfaction while we assessed the predictive power of involvement and satisfaction measures on overall student satisfaction at HBCUs and PWIs. The dependent variable for this regression was a modified form of the overall student satisfaction measure on the CSS. To make possible the use of this variable in a logistic

regression equation, we converted this continuous variable into a dichotomous measure. (See below for more details on this procedure.)

Limitations

The impreciseness of the survey questions that measure involvement limited our ability to understand the precise forms such involvement might have taken. While these questions were related directly to the involvement factors at the heart of this study, it would have been more useful to have had access to measures of the degree, rather than the mere fact of, involvement with the various academic and extracurricular activities under study. In addition, as noted below, our data contained responses from only seven HBCUs, which limits our ability to generalize from the results.

RESULTS / DISCUSSION

From matching HBCUs and their comparable PWIs, we derived 443 responses from African American students attending the seven HBCUs participating in the CSS and 443 responses from African American students attending the comparable 114 PWIs.

African American Student Involvement

Table 1 shows means scores for selected academic and extracurricular involvement variables for students at each of the types of schools considered in this study. The first set of variables had three possible responses: "not at all," "occasionally," and "frequently." The second set of variables was part of a list in which respondents were asked to check all items that applied. All of the variables that had a significant Pearson chi square ($p < 0.05$) are listed. In addition, the two variables listed in bold were the two measures included in the regression equation described below.

As Table 1 demonstrates, African American students at HBCUs and comparable PWIs tended to show different levels of extracurricular and academic involvement, with African Americans at HBCUs demonstrating higher levels of academic involvement on several measures. For example, more African American students at HBCUs tutored other students, more completed homework on time, and fewer felt bored in class. Fewer HBCU students participated in intramural sports, a finding that might be related to the continued use of athletic recruiting as a pathway to PWIs for African Americans. Interestingly, fewer HBCU students tended to attend racial/cultural workshops, take ethnic studies courses, or belong to racial/cultural organizations than PWI students. We interpret this finding as suggesting that African American students at HBCUs found less need for these types of activities, because the overall climate at HBCUs was more supportive than that at PWIs. This conclusion is bolstered by the greater levels of satisfaction with campus racial/ethnic climates revealed in Table 2.

TABLE 1
ACADEMIC AND EXTRACURRICULAR INVOLVEMENT MEASURES FOR HBCUs AND PWIs

	<i>HBCU</i>	<i>PWI</i>	<i>Chi Square p-value</i>
Academic Involvement			
<i>(% reporting at least occasional participation)</i>			
Took interdisciplinary courses	57.0	77.1	0.00
Worked on group project in class	97.3	97.7	0.01
Been guest in professor's home	25.0	45.8	0.00
Didn't complete homework on time	61.6	69.8	0.01
Felt bored in class	91.9	97.7	0.00
Did extra work for course	86.2	77.7	0.01
Challenged professor's ideas in class.	79.2	82.7	0.31
<i>% indicating yes</i>			
Taken developmental courses	28.2	12.4	0.00
Taken ethnic studies courses	64.8	74.3	0.02
Taken women's studies courses	16.5	24.4	0.04
Tutored another student	55.1	47.6	0.03
Took a leave of absence	14.0	8.6	0.01
Withdrew from school	11.3	4.1	0.00
Transferred to another college	19.0	6.3	0.00
Extracurricular Involvement			
<i>% reporting at least occasional participation</i>			
Participated in intramural sports	36.2	41.3	0.17
<i>% indicating yes</i>			
Had part-time job on campus	41.3	63.2	0.00
Had part-time job off campus	65.2	56.2	0.01
Worked full-time while student	17.6	10.4	0.02
Attended racial/cultural awareness workshop	47.4	61.2	0.00
In racial/ethnic student organization	38.6	58.9	0.00
In intercollegiate football / basketball	8.1	12.6	0.03

African American Student Satisfaction

As Table 2 shows, African American students at both HBCUs and PWIs tended to express strikingly different levels of satisfaction on a wide range of measures. This table shows clearly that African American students tend to be more satisfied with their experiences at HBCUs than at PWIs: Over 80% of African American students reported that they were "satisfied" or

TABLE 2
SATISFACTION MEASURES FOR HBCUs AND PWIs

<i>Percentage reporting "Satisfied" or "Very Satisfied"</i>	<i>HBCU</i>	<i>PWI</i>	<i>Chi Square p-value</i>
Ethnic / racial diversity of faculty	65.0	24.2	0.00
Ethnic / racial diversity of students	65.9	35.6	0.00
Sense of community on campus	57.6	44.6	0.00
Leadership opportunities	69.1	57.3	0.80
Interaction with other students	87.2	78.3	0.00
<i>Overall satisfaction</i> (dependent variable)	80.4	73.9	0.00
Courses in major	83.7	82.8	0.01
Ability to find faculty / staff	64.0	68.9	0.05
Campus health services	37.2	42.8	0.00
Overall quality of instruction	74.5	80.3	0.23
Job placement services	35.1	42.1	0.00
Career counseling	48.4	56.0	0.00
Library facilities	44.0	51.8	0.01
Financial aid services	36.0	45.3	0.00
Opportunity for community service	59.3	70.3	0.00
Lab facilities	41.7	55.1	0.00
Contact with faculty and administration	61.2	76.3	0.00
Student housing	26.3	42.9	0.00

“very satisfied” with their experience at HBCUs, in contrast to 74% of their PWI counterparts. In satisfaction measures related to racial/ethnic diversity at the school, African American students rated HBCUs higher than PWIs. For example, 65% of HBCU students reported that they were “satisfied” or “very satisfied” with the ethnic/racial diversity of their faculty, compared with only 24% of African American students at PWIs. Similarly, 58% of HBCU students reported being “satisfied” or “very satisfied” with the sense of community on their campuses, compared with 45% of their counterparts at PWIs. However, it must be noted that HBCU students were less likely to be satisfied according to several student service measures, including housing, financial aid, health care, community service opportunities, and career placement. As we interpret these individual measures of dissatisfaction with some HBCU features, they highlight the importance of the consistently higher measures of overall satisfaction students express toward HBCUs. If students were dissatisfied with these measures of student support services, yet remained more satisfied with their overall experience at HBCUs, then the factors that produced greater overall satisfaction with HBCUs are powerful indeed.

Taken together, our findings replicate the research discussed above, which found that HBCUs tend to provide a more satisfying experience and supportive climate for their African American students. In addition, these results support our speculations on the importance of the mutual relationship between campuses and students.

General Discussion of Regression Results

The logistic regression equation we developed for students at HBCUs and PWIs allowed us to isolate and analyze the involvement and satisfaction variables that were most useful in predicting overall student satisfaction at HBCUs and comparable PWIs. Taking guidance from both our conceptual framework and the literature, we introduced a range of independent variables into the equation, including:

- Demographic characteristics, such as sex, parental education, and family income.
- Selected academic and extracurricular involvement variables, including measures of involvement, such as group study, faculty interaction, doing extra credit work, and interactions outside the classroom; and participation in such student activities as clubs, organizations, sports, and tutoring.
- A range of 26 satisfaction measures designed to elicit student reactions to a variety of aspects of campus life, from satisfaction with particular majors and class size to satisfaction with the ethnic diversity of the faculty and student body.
- Academic performance measures, such as college GPA.
- Degree aspirations at the time of college entrance.

We took the demographic variables and degree aspirations from the 1993 SIF, and the measures of involvement, satisfaction, and performance from the 1997 CSS. After controlling for demographic, involvement, and satisfaction measures, we introduced a dichotomous variable indicating enrollment at an HBCU at the time of the SIF. (See Astin, 1993, for a discussion of variables used in the CIRP surveys, including the SIF and CSS.)

Of primary interest to us were the variables related to involvement and satisfaction, since we hypothesized that introducing these measures into the equation as dependent variables would allow us to isolate the effect of these indicators on the dependent variable—overall satisfaction. Using attendance at an HBCU as a dichotomous measure would allow us to measure the particular effect of being a student at these institutions. Finally, other measures, including demographic variables, academic indicators, and educational aspirations were introduced to check for any differential levels of satisfaction among the demographic groups.

As mentioned above, the dependent variable was a dichotomous measure of satisfaction. We rated students who described themselves as “satisfied” or “very satisfied” with their overall undergraduate experience as

“satisfied” and assigned them a value of 1. We assigned 0 to all others (students who could not rate their undergraduate experience or were dissatisfied or neutral about it).

We introduced the independent variables in groups, selecting them by a stepwise regression procedure. After we had identified all of the relevant variables, we introduced the dichotomous variable indicating attendance at an HBCU. With the exception of college GPA, we entered all of the independent variables as categorical variables. This procedure was necessary for satisfaction measures because a possible response was “can’t rate.” Further, treating these variables as categorical was desirable for the other measures because it did not require a linear interpretation of the scale of the variables, as coded.

Table 3 displays the variables included in the final logistic regression, along with the Wald statistics, degrees of freedom, and the significance of the contribution of the variables. We report the total model chi-square as well as the classification table for the model, which shows that the model accurately predicts the dichotomous satisfaction level of 85% of the sample. We entered the categorical variables using a series of dummy variables (deviation coding) with the number of dummy variables equal to one less than the number of categories for each variable. It was not surprising that many of the satisfaction variables entered the analysis, since overall satisfaction is related to the subscales of satisfaction as measured by each of the individual measures.

Role of Involvement

The results presented in Table 3 tend to replicate Astin’s conclusions on the importance of involvement, as well as previous research on African American experience in HBCUs and PWIs. Some direct measures of involvement, such as participation in internships, predict overall satisfaction. However, indicators of satisfaction with conditions related to *interaction* with fellow students and faculty/administrators, rather than mere *involvement* in campus activities, form the majority of predictors of overall satisfaction. As Table 2 showed, African American students at HBCUs tended to be more satisfied with the sense of community, student-to-student interaction, and the availability of leadership opportunities than their counterparts at comparable PWIs. In Table 3, these measures of satisfaction with interpersonal factors are key predictors of overall satisfaction with the college experience.

A primary result of this study is the coefficient for HBCU enrollment that is produced by the logistic regression procedure. In logistic regression, the coefficients indicate the relative change in the log (odds) ratio based on a unit change in the independent variables. In this analysis the regression coefficient for HBCU enrollment was 0.655. A somewhat more interpret-

TABLE 3
LOGISTIC REGRESSION PREDICTING 1997
REPORT OF OVERALL SATISFACTION FOR AFRICAN AMERICAN
STUDENTS AT HBCUs AND PWIs

N = 855

<i>Variable</i>	<i>Wald</i>	<i>Degrees of Freedom</i>	<i>Sig</i>
Satisfaction: quality of instruction	27.38	4	0.000
Satisfaction: sense of community on campus	18.07	4	0.001
Satisfaction: contact with faculty and administration	13.93	4	0.008
Satisfaction: interaction with other students	27.54	4	0.000
Satisfaction: leadership opportunities	25.43	4	0.000
Participation in internship program	5.19	1	0.023
Challenged professor's idea in class (frequency)	6.35	2	0.042
College GPA	16.59	1	0.000
Enrolled at an HBCU	7.54	1	0.006
Model chi square		345.6	
Degrees of freedom		25	

Classification Table for Dependent Variable

<i>Observed</i>	<i>Predicted</i>		<i>Percent Correct</i>
	0	1	
0	111	83	57.2
1	42	619	93.6
Overall			85.4

able form of the coefficient is the $\exp(0.655) = 1.93$, which indicates the change in the relative odds of the dependent variable. This value of 1.93 indicates that, over and above the influence of all of the other variables in the regression on overall satisfaction, attending an HBCU means that the odds of being satisfied are nearly doubled. In other words, attending an HBCU retains a positive effect on satisfaction, even after those effects of environmental experience have been taken into account. We term this unique advantage of HBCUs for satisfaction their multiplier effect.

The logistic regression equation confirms earlier studies of the positive effect of HBCUs for their African American students while further expanding our understanding of the benefits of these schools. It demonstrates that, even after controlling for relevant variables such as involvement, individual satisfaction, and academic performance, attending an HBCU almost doubles an undergraduate's chances of being satisfied with his or her college experience. We conclude further that HBCUs, because of their more supportive climate, provide greater opportunities for involvement than PWIs.

In addition to lending support to Astin's general theory of involvement in the particular situation encountered by African American students at HBCUs and PWIs, the results of this study—especially those on particular types of satisfaction—replicate the work of Fleming (1984), Davis (1991), Allen (1992) and Bonous-Hammarth and Boatsman (1996), each of whom found that African American students at HBCUs enjoyed more hospitable educational conditions. However, our results do not merely confirm the work of prior researchers. In addition to showing that African American students are more involved at HBCUs than at PWIs and that they are more satisfied with their experience at HBCUs, our results suggest that the most important elements in HBCUs' unique advantages are related to students' experience with their *human environment*. This finding underscores Davis's (1991) conclusions on the importance of social support networks for campus success. This finding clearly supports our theory of reciprocal engagement, which holds that student involvement and campus environmental conditions coexist in a mutually reciprocal relationship.

DIRECTIONS FOR FUTURE RESEARCH

The research results presented here indicate several possible directions for further study. One could undertake a longitudinal/historical analysis, possibly using CIRP data from the 1960s to the present, to examine long-term changes in the relationships between involvement, engagement, and satisfaction. What, for example, would be the levels of satisfaction and involvement over time at HBCUs that have experienced a decline in the proportion of African Americans in their student body? Evelyn (1997) reports that some, such as Bluefield State College in West Virginia, now have a student body that is less than 10% African American.

However, longitudinal analyses would be more significant if they were contextualized within the changing role of HBCUs in society. The challenge to these institutions and their historical mission posed by the outcome of the *Fordice* (1992) case, as well as the likely increasing importance of these colleges for African Americans in the wake of affirmative action retrenchments, make it especially important that we understand exactly how HBCUs create beneficial environments for their African American students.

Longitudinal analyses could likewise address a key question deserving further study: What is the relationship between the size of the African American population on a campus and the multiplier effect that we were able to measure with our small sample of HBCUs? Such studies could address the difference between the relative and absolute sizes of a campus's African American student body. What is more important for creating a supportive environment—a certain minimum number of African American students, or a minimum proportion? Must the size of the racial/ethnic community be readily apparent during daily interactions or is knowledge of its presence sufficient?

Additional further studies could probe the nature of social support networks. Research could focus on the origins of these support networks, as well as the means by which students enter them. It would be very useful to understand more about how institutional policies could foster the growth of these networks. Qualitative analyses on a smaller but more personal scale may be useful for discerning in more detail the role involvement and engagement have in fostering positive student experiences at HBCUs.

Finally, while our study focused on addressed satisfaction, it would be helpful to know if the multiplier effect we identified is related to academic achievement during college and post-college occupational outcomes as well.

IMPLICATIONS FOR POLICY

Our research suggests that the multiplier effect we identified should be considered in two primary arenas. The first is in HBCUs, which have created this effect by their remarkable success in providing supportive environments in which African American students can achieve academic and personal success. The second is within any campus community that hopes to provide a rewarding and satisfying college experience for African American students.

According to both the educational literature and our results, HBCUs succeed in educating their African American students largely because they provide a climate in which African American students feel welcome, supported, and encouraged to take part in the social and academic life of the campus. However, the *Fordice* case mandates that these institutions eradicate those very factors that tend to create this environment—their “racial identifiability” and their particular appeal for African Americans. Our results suggest that success in reducing the “racial identifiability” of HBCUs will come at the expense of African American students. Ironically, challenges to HBCUs, such as the *Fordice* case, come at precisely the moment when African Americans face systematic exclusion from prestigious public universities in more and more states. While we do not suggest continued segregation within any type of educational institution, we believe that a revisiting or reinterpreting of *Fordice* is essential so that HBCUs can continue their historical mission of serving the otherwise underserved African American community.

If HBCUs serve fewer and fewer African American students as a proportion of their entire student body, they must be careful to preserve their unique and supportive environments for these students. For example, academic offerings that highlight issues of concern to African Americans (such as African American culture in curriculum), targeted counseling, and “themed” residences for African Americans could promote the type of reciprocal engagement that fosters African American student success. This continued emphasis on the unique experience and needs of African American students would be consistent with St. John and Hossler’s (1998) suggestion that HBCUs in the post-*Fordice* environment pursue “dual missions” of supporting both their historical African American students and those non-African Americans attending HBCUs in larger numbers.

It is important that PWIs also learn from the success of HBCUs, especially given recent changes in admissions policies. Contemporary challenges to the historic characteristics of HBCUs have been compounded by affirmative action backlash and retrenchment at a growing number of public institutions. As a result, the size of the underrepresented minority community has already begun to decline on many campuses (Haworth, 1998). With these declines, public colleges and universities must address the question of how well they are serving the minority groups on their campuses. Are institutional mechanisms functioning to help provide the social support networks that are so useful for African Americans at HBCUs? Are institutions taking active steps to promote interaction and involvement on the part of all of their students, including African Americans? Just as PWIs can model the success of HBCUs in promoting supportive environments, so could they use many of the academic and cocurricular steps we suggest above to further enhance the educational experience of African Americans. Such measures would encourage exactly the reciprocal engagement that we have demonstrated to be significant in the unique environments offered by HBCUs to their African American students.

In conclusion, the relationship between our results and the higher education climate faced by African Americans today is troubling. HBCUs seem poised to become even more important in the educational lives of African Americans as the elimination of affirmative action encourages more African Americans to seek campuses with substantial and supportive African American communities. Simultaneously, the *Fordice* decision (1992) challenges these institutions’ existence and ability to fulfill their historical missions at precisely the point in recent history at which they may be most needed. The long and erratic march of progress in providing equality of educational opportunity for African Americans has not merely slowed but indeed could be reversed. Given recent threats to educational access, it is more important than ever to preserve institutional supportiveness for African Americans in higher education.

REFERENCES

- Allen, W. R. (1992). The color of success: African American college student outcomes at predominantly White and historically Black colleges and universities. *Harvard Educational Review*, 62(1), 26-44.
- Astin, A. W. (1975). *Preventing students from dropping out*. San Francisco: Jossey-Bass.
- Astin, A. W. (1985). *Achieving educational excellence*. San Francisco: Jossey-Bass.
- Astin, A. W. (1993). *What matters in college? Four critical years revisited*. San Francisco: Jossey-Bass.
- Astin, A. W., Tsui, L., & Avalos, J. (1996). *Degree attainment rates at American colleges and universities: Effects of race, gender, and institutional type*. Los Angeles, CA: Higher Education Research Institute, Graduate School of Education University of California.
- Bonous-Hammarth, M., & Boatsman, K. (1996). *Satisfaction guaranteed? Predicting academic and social outcomes for African American college students*. Paper presented at the annual conference of the American Educational Research Association, New York.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Davis, R. B. (1991). Social support networks and undergraduate student academic-success-related outcomes: A comparison of Black students on Black and White Campuses. In W. R. Allen, E. Epps, & N. Hanniff (Eds.), *College in Black and White: African American students in predominantly White and in historically Black universities* (pp. 143-157). Albany: State University of New York Press.
- Evelyn, J. (1997, December 11). Historically Black Bluefield State's ironic situation: Desperately seeking Black students and faculty. *Black Issues in Higher Education*, 14(21), 28-29.
- Fleming, J. (1984). *Blacks in college: A comparative study of students' success in Black and in White institutions*. San Francisco: Jossey-Bass.
- Haworth, K. (1998, March 27). Minority admissions fall on 3 U. of California campuses. *Chronicle of Higher Education*, p. A41.
- Hopwood v. Texas*. (1996). 78 F. 3d 932 (5th Cir. 1996). *Cert. Denied* 116 s. ct. 2581 (1996).
- Mixon, G. A., Adams, J. Q., Broome, T., Curry, B., Peters, B., Tollett, K. S., Sr., & Irvin, H. D. (1995). The historically Black colleges and universities: A future in the balance. *Academe*, 81(1), 51-58.
- Roebuck, J. B., & Murty, K. S. (1993). *Historically Black colleges and universities: Their place in American higher education*. Westport, CT: Praeger.
- St. John, E. P. (1998). Higher education desegregation in the post-Fordice legal environment: A historical perspective. In R. Fossey (Ed.), *Race, the courts, and equal education: The limits of the law* (Vol. 15, pp. 101-122). New York: AMS Press.
- St. John, E. P., & Hossler, D. (1998). Higher education desegregation in the post-Fordice legal environment: A critical-empirical perspective. In R. Fossey (Ed.), *Race, the courts, and equal education: The limits of the law* (Vol. 15, pp. 123-155). New York: AMS Press.
- United States v. Fordice*. (1992). 112 S. Ct. 2727.