A COMPARATIVE EXAMINATION OF STUDENT SATISFACTION BY ETHNICITY AT HISTORICALLY BLACK AND PREDOMINATELY WHITE LAND-GRANT INSTITUTIONS

Thesis submitted to the Faculty of the

Virginia Polytechnic Institute and State University

In partial fulfillment of the requirements for the degree of

MASTERS OF ARTS IN EDUCATION

In

Educational Leadership and Policy Studies

by

Vonetta Y. Rector

August 2002

Blacksburg, VA

_____

Steven M. Janosik, Chairperson

Benjamin Dixon

John A. Muffo

Keywords: college student satisfaction, college environment, African American students,

student attitudes, retention

A Comparative Examination of Student Satisfaction by Ethnicity at Historically Black and

Predominately White Land-Grant Institutions

Vonetta Y. Rector

(ABSTRACT)

State systems have begun to implement performance-based policies in higher education that obligate state institutions to demonstrate they are providing quality educational experiences for students in an effective and efficient manner (Hatcher, Kryter, Prus, & Fitzgerald, 1992; Redd, 1998). Quality and overall effectiveness are measured by student outcomes, such as student retention, attrition, and graduation rates (Hatcher, et al., 1992; Redd, 1998).

College student satisfaction has emerged as a factor that affects student retention, attrition and graduation rates (Aitken, 1982; Allen, 1987; Hatcher, et al., 1992; Love, 1993). The greater the level of satisfaction with the college environment, the greater the likelihood that the student will remain affiliated with the institution. This is seen at predominately White institutions (PWIs). Many have found that African American students are less satisfied than their White counterparts with the college environment, and have attrition rates five to eight times higher than their White counterparts at the same institution (Allen, 1987; Fisher & Hartmann, 1991; Love, 1993; Suen, 198). Approximately 80 percent of all African American undergraduates are enrolled in PWIs (Arenson, 1997).

Research also indicates that African American students attending historically Black institutions (HBIs) seem to be more satisfied with the college environment than their African American counterparts at PWIs, and graduate at rates equal to White students at PWIs (Allen, 1987; Bohr, Pascarella, Nora, & Terenzini, 1995; Love, 1993; Nettles, et al., 1986; Suen, 1983).

Despite these satisfaction and success rates, by 1994, total African American student enrollments at HBIs decreased to an all-time low: 16 percent (Redd, 1998; Schexnider, 1998).

Contrary to African American student enrollments, White student enrollments at HBIs have increased 71 percent from 1976 to 1994 (Redd, 1998; Wenglinsky, 1996). Because these students represent non-majorities on HBI campuses, it would be interesting to see if the pattern of satisfaction for African American students attending PWIs hold true for White students at HBIs. The present study, by examining the satisfaction levels of both groups of students with the college environment, since they represent non-majorities on their respective campuses, is designed to address this gap in the existing body of literature on African Americans and Whites at PWIs and HBIs.

Data related to levels of student satisfaction with the college environment were obtained from the College Environment scale of the Student Opinion Survey (SOS). The six aspects of college environment explored in the study included academics, admissions, rules and policies, facilities, registration, and general environment. Chi-squares were calculated on each item of the College Environment scale to determine significance.

The study made within group comparisons (AA-HBI v. AA-PWI; W-PWI v. W-HBI) and between group comparisons (AA-PWI v. W-PWI; AA-HBI v. W-HBI) based on majority and non-majority statuses on respective campuses. Results of the study revealed several significant differences in student satisfaction levels for both within group and between group comparisons. This study found that African American and White students who represent the non-majority on their respective campuses are seemingly more satisfied (or equally satisfied) with aspects of the college environment than majority students on the same campuses. Additionally, these non-majority groups were more satisfied (or equally satisfied) with dimensions of the college

environment than their ethnic counterparts on PWI and HBI campuses (AA-HBI and W-PWI students). W-HBI students demonstrated greater levels of satisfaction than all other groups included in the study.

The final sample included 1683 undergraduate students (447 African American and 1236 White) enrolled at four land-grant institutions (two HBIs and two PWIs). Of the African American students included in the sample, 327 students attended HBIs and 120 students attended PWIs. Of the White students included in the sample, 1193 students attended PWIs and 43 students attending HBIs.

Dedication

Dedicated to the loving memory of Anna Elizabeth Jones and Virginia Louise Cook, my two angels. You are always with me.

To Jeanne, Lisa, Marcia, Emmanuel, Julius, and Marcus (my inspiration to keep going), thank you for your unconditional love and support. This is for you.

The Lord has truly been my Guide. I give Him high praise and thanks for giving me the strength to overcome obstacles placed in my path and achieve this goal.

"I can do all things through Christ, who strengthens me." – Philippians 4:13

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE

Introduction

Public policy in the United States has historically shaped many of this nation's social institutions. These policies have both created and sustained the climate and equity within social institutions. One such social institution shaped by policy is education (Brown v. Board of Education, 1954; Fife, 1996).

Prior to the Civil Rights era (1950s and 1960s), policy either directly permitted or required discrimination based on race in public, quasi-public or facilities private in nature. These facilities included, among others state and local schools and state colleges and universities (Abraham, 1996). As a result, many state and local laws were enacted that forbade the education of African Americans. In states where the law did not directly prohibit the education of African Americans, social practice restricted public education to White Americans only (Roebuck & Murty, 1993).

The Freedmen's Bureau was established during this pre-Civil Rights era to provide instruction, mostly elementary and secondary education, to African Americans (Roebuck & Murty, 1993). By law, however, African Americans were still prohibited from attending public (and private) institutions with White students. African Americans were forced to attend a separate school for African Americans only (Brown v. Board of Education, 1954; Roebuck & Murty, 1993). This policy was known as "separate but equal" and was established by case law in *Plessy v. Ferguson* (1896).

The separate but equal doctrine shaped the segregated educational system in the United States. This judicial doctrine mandated the creation of separate public facilities for the education of African Americans. As a result, states revised constitutions and enacted

laws that legally prevented African American and White students from attending the same schools (Roebuck & Murty, 1993). Thus, public educational facilities for grades one through 12 for African American students were created (Redd, 1998).

Public historically black institutions of higher education (HBIs) are outgrowths of this segregated educational system (Committee L on Historically Black Institutions, 1995). Between 1865 and 1890, four-year public colleges, including public, land-grant institutions, and many four-year private colleges were established for African Americans (Redd, 1998; Roebuck & Murty, 1993). During this time leading up to the Civil Rights Movement, higher education statistics indicate that between 70 percent and 90 percent of all African American students attending college were enrolled in HBIs (Redd, 1998; Roebuck & Murty, 1993).

As the Civil Rights era began in the 1950s, policy was changed to indicate that the segregated educational system was separate but not equal (Brown v. Board of Education, 1954). The Supreme Court ruled in *Brown v. Board of Education* (1954) that inadequate funding and resources allotted to HBIs from states and other sources for the education of African Americans created a separate and inferior educational system for African Americans (Brown v. Board of Education, 1954; Fife, 1996; Redd, 1998; Roebuck & Murty, 1993). As a result, new policies were implemented to open access to predominantly White institutions (PWIs) for African American students (Berkley & Rouse, 1997).

During the 1960s, the Civil Rights Movement produced a series of polices that introduced equal opportunity and affirmative action. The concept of equal opportunity called for institutions that were representative of all people where no one was denied

opportunity based on race, national origin, gender, or physical disability (Berkley &

Rouse, 1997). This shift in policy prohibited discriminatory practices against African

Americans and other racial minorities based on ethnicity.

Large numbers of public PWIs used the concept of affirmative action in their

recruitment and admissions policies (Fleming, 1984). With the legal right to attend White

schools, African American enrollments at PWIs increased dramatically in the 1960s and

throughout the years following the Civil Rights Movement. Between 1964 and 1968,

African American student enrollments at PWIs increased 144 percent, from 114,000 to

278,000 (Fleming, 1984). By 1970, 378,000 African American students were attending

PWIs (Fleming, 1984).

In 1990, African American students accounted for 9.6 percent of all full time

freshmen attending college (Phillips, 1994). By 1995, The American Council on

Education reported total college enrollment of African American students at 1.5 million,

or 10.5 percent of total enrollment (Arenson, 1997). Approximately 80 percent of all

African American undergraduates are enrolled in PWIs (Arenson, 1997).

This shift in policy from segregation to affirmative action (integration) and

increased enrollments of African American at PWIs resulted in decreases in African

American enrollments at HBIs. By the late 1960s, only 36 percent of total African

American college students were enrolled in HBIs (Redd, 1998). In 1987, the American

Council on Education reported an even greater decrease in enrollments: 18 percent of

total African American college students were attending HBIs (Redd, 1998; Roebuck &

Murty, 1993). By 1994, only 16 percent of all African American college students were

enrolled in HBIs (Redd, 1998; Schexnider, 1998).

Despite the decrease in African American student enrollment at HBIs during this period, enrollments for HBIs increased by 26 percent from 1976 to 1994 (Committee L on Historically Black Institutions, 1995; Redd, 1998; Wenglinsky, 1996). During this 18-year period, White student enrollment at HBIs increased. White student enrollment at HBIs increased from approximately 21,000 to 36,000, a 71 percent increase (Redd, 1998). According to the National Association for Equal Opportunity in Higher Education (NAFEO), as of 1998, at least a dozen of the nation's historically black colleges and university's have students populations that are 19 percent to 49 percent White (Barker, 2000). Three of the nation's historically black four-year institutions have White student populations between 71 percent and 91 percent (Barker, 2000).

The integrated public educational system has moved some states to examine the necessity of continuing HBIs. Some states and courts have argued that it would be financially more efficient for states to close their public HBIs and transfer programs to PWIs (Committee L on Historically Black Institutions, 1995; Redd, 1998; U. S. v. Fordice, 1992). Supporters of closing HBIs contend that since PWIs cannot legally prohibit the admission of African American students there is no longer a need for institutions that operate solely for the education of African Americans (Committee L on Historically Black Institutions, 1995; Redd, 1998; Roebuck & Murty, 1993; Wenglinsky, 1996). HBI supporters assert that, despite the change in policy, there is still a need for these institutions in today's society to contribute to the intellectual, social, and emotional well-being of African American students (Committee L on Historically Black Institutions, 1995; Fleming, 1981; Fleming, 1984; Redd, 1998; Roebuck & Murty, 1993; Wenglinsky, 1996). This debate into the educational value and need for HBIs has marked

the start of a new policy pertaining to education: performance based policies (Redd, 1998).

Performance-based policies demand greater accountability from systems of higher education. State systems are now implementing policies that obligate state institutions to demonstrate they are providing quality educational experiences for students in an effective and efficient manner (Hatcher, Kryter, Prus, & Fitzgerald, 1992; Redd, 1998). Quality and overall effectiveness are measured by student outcomes, such as student retention, attrition, and graduation rates (Hatcher, et al., 1992; Redd, 1998).

As a result of these policies, institutions are now examining factors that affect student retention, attrition, and graduation rates. One such factor that affects student retention and attrition is students' level of satisfaction with the collegiate experience (Aitken, 1982; Astin, Korn, & Green, 1987; Bailey, Bauman, & Lata, 1998; Love, 1993; Suen, 1983). The greater the level of satisfaction with the collegiate experience, the greater the likelihood that the student will remain affiliated with the institution (Aitken, 1982; Allen, 1987; Hatcher, et al., 1992; Love, 1993; Nettles, Theony, & Gosman, 1986; Suen, 1983).

With the increasing number of African American students attending PWIs, researchers have increasingly examined the level of satisfaction for African Americans at these institutions (Allen, 1987; Dillard, 1989; Fisher & Hartmann, 1991; Fleming, 1981; Fleming, 1984; Love, 1993; Robertson, 1980; Suen, 1983; Wesley & Abston, 1983). Despite the increase in the number of African Americans at PWIs, many have found that African American students at PWIs are less satisfied with their collegiate experience than their White counterparts (Allen, 1987; Fisher & Hartmann, 1991; Love, 1993; Suen,

1983; Wesley & Abston, 1983). In addition, African American students at PWIs have attrition rates five to eight times higher than their White counterparts at the same institution (W-PWI) (Allen, 1987).

Research also indicates that African American students attending HBIs seem to be more satisfied with the college environment (Allen, 1987; Bohr, Pascarella, Nora, & Terenzini, 1995; Love, 1993; Nettles, et al., 1986; Suen, 1983), graduating at rates equal to White students at PWIs (Fleming, 1984; Love, 1993). However, now that there are increasing numbers of White students at HBIs, it would be interesting to see if the pattern of satisfaction for African American students attending PWIs holds true for White students attending HBIs. The present study, by examining the satisfaction levels of both groups of students with the college environment, since they represent "non-majorities" on their respective campuses, is designed to address this gap in the existing body of literature on African Americans and Whites at PWIs and HBIs.

Purpose of the Study

The purpose of this study was to examine levels of satisfaction with the college environment among African American and White college students attending historically black (HBI) and predominately white (PWI) land-grant institutions. The increased numbers of African American students enrolled in PWIs and the increased numbers of White students enrolled in HBIs make it necessary to learn more about factors that affect student outcomes for "non-majority" students on their respective campuses. Student satisfaction with the collegiate experience (which may include the social and academic realms, interpersonal relationships, institutional culture, and living environment) is one

such factor that affects outcomes such as retention, graduation rates and attrition (Aitken, 1982; Allen, 1987; Hatcher, et al., 1992; Love, 1993; Nettles, et al., 1986; Suen, 1983).

With many institutions being held accountable through performance-based policies of state systems of higher education, institutions need to examine the experiences of college students that influence student and institutional productivity. Results from this study might provide valuable information on student satisfaction with the college environment among two groups of students that represent non-majorities on their respective campus (African Americans at PWIs and Whites at HBIs).

For the purposes of the present study, the levels of student satisfaction with the college environment were obtained from Student Opinion Survey (SOS) (American College Testing Program, 1997) data collected by participating institutions between January, 1996 and September, 1998.

Statistical Hypotheses

The present study was designed to test the following statistical hypotheses:

1. There is no significant difference in the levels of satisfaction with the college environment between African American students attending HBIs (AA-HBI) and African American students attending PWIs (AA-PWI).

2. There is no significant difference in the levels of satisfaction with the college environment between White students attending PWIs (W-PWI) and White students attending HBIs (W-HBI).

3. There is no significant difference in the levels of satisfaction with the college environment between AA-PWI students and W-PWI students.

4. There is no significant difference in the levels of satisfaction with the college environment between AA-HBI students and W-HBI students.

Significance of the Study

Several constituencies may benefit from the results of this study. First, admissions staff may use the results. The data from the present study examined the levels of satisfaction among African American and White students at both predominately White and historically Black institutions. Professionals in college admissions may use the results to examine their own recruitment and admission policies to see if those policies might influence satisfaction levels among students. These results can also be used to assist in marketing an institution to prospective students and their families.

In addition, the present study explored overall student satisfaction with the college environment. Student affairs professionals and enrollment management specialists at these types of institutions may use the results to gain insight into the degree of satisfaction non-majority students experience with respect to institutional policies, procedures and services. Considering the impact of student satisfaction on student retention for special populations, these professionals might use this information to evaluate other institutional structures, such as social experiences, faculty/student interactions, and impact of institutional culture, to see if these might influence satisfaction levels among these students.

Prospective students and parents may also use the results of the present study. The research examined student satisfaction with various aspects of the college environment at two HBIs and PWIs. Students and their parents may find this information helpful in guiding their college selection process. By reviewing the data, prospective students and

parents might gain a better understanding of what aspects of the college environment students are most satisfied with, and gain insight into the experiences of different groups of students on different college campuses.

The present study was also significant in terms of research. This study examined students at two types of land-grant institutions, a PWI and a HBI. Other studies may examine the levels of satisfaction among students at other types of institutions (e.g. community colleges, liberal arts colleges and universities, master's comprehensive colleges and universities). Such studies may provide additional information on differences in satisfaction levels among students at different types of institutions.

While this research examined levels of satisfaction by ethnicity, other researchers may wish to examine differences in student satisfaction by gender. Such a study might expand the body of knowledge on college student satisfaction by providing information on differences in satisfaction levels among male and female students.

Organization of the Study

This study is arranged in five chapters. The first chapter provided an introduction to the phenomenon under study, the purpose of the study, the research questions, and significance of the research. Chapter Two provides a review of related literature. Chapter Three describes the methodology used in the study, including data collection and data analysis procedures. The research results are presented in Chapter Four while Chapter Five discusses those results and their implications for future research.

CHAPTER TWO

Review of Literature

College student satisfaction has emerged as a part of the discussion on institutional effectiveness and student outcomes (Astin, Korn, & Green, 1987; Bailey, Bauman, & Lata, 1998). As a result, researchers have become increasingly interested in college student satisfaction. This study examined college student satisfaction among different ethnic groups (African American v. White) at historically black (HBI) and predominately white (PWI) land-grant institutions. More specifically, the study made within group and between group comparisons based on majority and non-majority statuses on respective campuses.

To examine the topic under study, it was necessary to first explore literature related to college student satisfaction in broad terms. Second, to thoroughly explore student satisfaction levels by ethnicity (African American v. White) and institution type (HBI v. PWI), it was also necessary to explore the student satisfaction literature directly related to African American and White students at different institutions of higher education. Two groups of literature emerged on student satisfaction in this review: (a) comparative studies on African American and White students attending PWIs (AA-PWI and W-PWI, respectively), and (b) comparative studies on African American students attending HBIs and PWIs (AA-HBI and AA-PWI, respectively).

College Student Satisfaction

College student satisfaction refers to the attraction, pride, or positive feeling that students associate with the institution they are attending (Danielson, 1998; Hatcher, Kryter, Prus & Fitzgerald, 1992). The level of positive feeling, or satisfaction, associated

with the institution is contingent upon the student's ability to (a) find adequate outlets for their academic and social interests and competencies (Stikes, 1984), and (b) project and implement their self concepts as students, or seeing oneself as part of the institution (Sedlacek, 1987; Stikes, 1984). The extent to which students are able to attain these things is a direct function of the student's academic and social experiences at the specific institution (Aitken, 1982; Betz, Menne, Starr, & Klingensmith, 1971; Danielson, 1998; Hatcher, et al., 1992; Stikes 1984; Tinto, 1993).

The academic and social experiences of students serve to integrate the students into the life of the institution (Tinto, 1993). Integration refers to the congruence between the needs, interests, and preferences of the institution and those of the student (Tinto, 1993). Integration is achieved through sufficient interactions with other members of the institution, including faculty, staff and other students (Tinto, 1993). The more integrative the experiences, the more likely the student will find adequate outlets for interests and competencies – creating a sense of affinity with the institution (Sedlacek, 1987; Stikes, 1984). The less integrative the experiences, the greater the students' feelings of isolation and alienation (Allen, 1987; Love, 1993; Tinto, 1993). Thus, students whose academic and social experiences serve to integrate them into the intellectual and social life of the institution express greater satisfaction with these experiences and with their overall college experience (Bailey, et al., 1998; Danielson, 1998; Tinto, 1993).

Danielson (1998) explored sources of student dissatisfaction and satisfaction at a Research I institution. The researcher asked student participants to reflect on their college experience, identify situations that serve as examples of circumstances that gave them

dissatisfaction or satisfaction with their college experience, and then clearly describe their reason(s) for dissatisfaction and satisfaction in the situations (Danielson, 1998).

The sources of satisfaction described by students were centered around situations which contribute to feelings of integration. Some of the sources of satisfaction identified include (a) co-curricular opportunities; (b) contact with people at the university; (c) connections with people at the university who were helpful and accommodating; and (d) campus pride (Danielson, 1998).

Many researchers suggest that there are a variety of factors that affect student satisfaction with the academic and social experiences (Aitken, 1982; Allen, 1987; Betz, et al., 1971; Danielson, 1998; Hatcher, et al., 1992; Love, 1993; Stikes 1984). With respect to academic experiences, these factors can be categorized as (a) variables of the academic environment and (b) faculty-student interactions.

The academic environment of the institution consists of the various academic conditions related to the student's intellectual and vocational development (Betz, et al., 1971). In exploring student retention, performance and satisfaction, Aitken (1982) identified variables within the institutional structure that affect each of these outcomes. A portion of his research identified those variables that affect satisfaction with the academic environment.

Satisfaction with the academic environment was postulated as a function of academic performance, quality of curriculum, quality of instruction, quality of academic advising, student satisfaction with major, and the level of isolation felt by the student (I-index) (Aitken, 1982). Standardized regression results reveal that grades, satisfaction

with curriculum, instruction, and major, and the I-index are significantly related to the students' level of satisfaction (Aitken, 1982).

Faculty-student interaction is also a factor that affects satisfaction in academic experiences (Allen, 1987; Betz, et al., 1971; Love, 1993; Tinto, 1993). Faculty-student interactions are classified as those formal and informal relationships established with students as a result of in and out of class interactions (Love, 1993; Tinto, 1993). Positive interactions with faculty are viewed by students as an indicator of acceptance as a worthwhile individual by the faculty and university (Allen, 1987; Betz, et al., 1971; Love, 1993). Sufficient and positive interactions between faculty and students provides the opportunity for integration and serve as a source of satisfaction for students (Danielson, 1998; Nettles, et al., 1986; Tinto, 1993).

With respect to social experiences, the social climate of an institution contributes largely to the satisfaction of the student (Aitken, 1982; Danielson, 1998). The social climate is shaped by the intra- and interpersonal relationships between students, and the ability of students to meet socially relevant goals within the institutional setting (Betz, et al., 1971; Love, 1993; Stikes, 1984). Where a student is unable to establish sufficient and positive peer relations and fulfill social goals, the student is likely to experience isolation and feel less integrated into the social life (Fisher & Hartmann, 1991; Love, 1993; Stikes, 1984; Suen, 1983; Tinto, 1993; Wesley & Abston, 1983).

Peer relations were also found to affect student satisfaction with the living environment (Aitken, 1982). In his research, Aitken (1982) identified variables within the institutional structure that affect satisfaction with the residential campus. Standardized regression results reveal that liking people on the student's residence hall floor,

13

roommate satisfaction, and satisfaction with the behavior of other students in the hall are significantly related to the students' level of satisfaction (Aitken, 1982).

Researchers (Aitken, 1982; Hatcher, et al., 1992) have also examined college student satisfaction with respect to student outcomes. Predictive and structural models have been developed in an effort to examine the relationship between student satisfaction and student retention and attrition. One such model, the investment model (Rusbult, 1980a), was originally developed to predict satisfaction, commitment, and subsequent behavior (continued affiliation) in a wide variety of circumstances, such as romantic relationships (Rusbult, 1980a), friendships (Rusbult, 1980b), and turnover in business organizations (Rusbult & Farrell, 1983).

The model consists of four primary variables: (a) rewards (REW); (b) costs (CST); (c) alternative value (ALT) - attractiveness of other options to remaining in the relationship; and (d) investment size (INV) – amount of time effort and personal resources expended in relationship. The variables determine satisfaction in a relationship (SAT), commitment to the relationship (COM) and the final decision to remain affiliated with the relationship (BEH).

SAT is conceptualized as the difference between REW and CST. COM is described as the difference between SAT and the sum of ALT and INV, where commitment is predicted to be high when satisfaction is high, alternatives are poor, and investments are great. When the commitment to the relationship is high, the individual is likely to remain affiliated with the relationship, and vice versa. Thus, BEH and COM are directly related. (Rusbult, 1980; Hatcher, et al., 1992)

More relevant to this study is the use of the model's theoretical framework to investigate college student attrition (Hatcher, et al., 1992). Hatcher, et al. (1992) used the investment model to predict student satisfaction, commitment to college and enrollment behavior (persistence v. attrition). The study was conducted in two phases. The first phase consisted of a pilot in which a group of 30 students were asked to generate at least six examples of REW, CST, ALT, and INV in their college setting. In phase two, responses from phase one were analyzed and combined with additional items to create a questionnaire that was administered to undergraduates (final sample = 174). Enrollment records for all student participants were reviewed the following fall semester to evaluate attrition.

In congruence with the investment model, Hatcher, et al. (1992), found that college student satisfaction is determined by two factors: REW and CST. REW are the positive features of the institution and the positive things the institution can do for the students (Hatcher, et al., 1992). CST refer to the institution's negative features and the hardships created by enrollment at the institution (Hatcher, et al., 1992). Thus, student satisfaction is predicted to be high when there is a high level of reward and a low level of cost associated with attending the institution (Hatcher, et al., 1992; Rusbult, 1980). Consistent with the invest model predictions, Hatcher, et al. (1992) found that rewards, costs, alternatives and investment size are significantly correlated with the students' satisfaction, their commitment to remain enrolled, and their subsequent enrollment behavior.

Aitken (1982) also developed a structural model that also links college student satisfaction and student outcomes. Based on data obtained from 892 first year students

attending a residential institution, Aitken developed a four-equation model of student retention, satisfaction (academic and living), and performance (Aitken, 1982).

According to Aitken (1982), major aspects of the student's experiences directly determine student retention. Aitken identifies five variables that have a direct causal affect on retention: (a) student's academic performance; (b) student satisfaction with academic experience; (c) student satisfaction with residential living experience; (d) the level of involvement in extracurricular activities; and (e) external factors. While academic performance plays the largest relative role in explaining retention, standardized regression results reveal that the degree of student satisfaction with the academic and living experiences were significantly related to the students' returning to the university.

These models demonstrate that a student's decision to remain at a specific institution is largely determined by the student's experiences at the institution (Aitken, 1982; Hatcher, et al., 1992). The greater the level of satisfaction with the collegiate experience, the greater the likelihood that the student will remain affiliated with the institution (Aitken, 1982; Allen, 1987; Hatcher, et al., 1992; Love, 1993; Nettles, et al., 1986; Suen, 1983; Tinto, 1993).

African American and White Student Satisfaction

To explore student satisfaction levels by ethnicity (African American v. White) and institution type (HBI v. PWI), it was also necessary to explore the student satisfaction literature directly related to African American and White students at different institutions of higher education. Two groups of studies emerged on student satisfaction in this review: (a) comparative studies on AA-PWI and W-PWI, and (b) comparative studies on AA-HBI and AA-PWI.

Comparative Studies on AA-PWI and W-PWI

Studies on college student satisfaction have examined the levels of satisfaction among African American and White college students on predominately white campuses (Dillard, 1989; Fisher & Hartmann, 1991; Fleming, 1984; Robertson, 1980; Wesley & Abston, 1983). Some of the studies have employed some form of the College Student Satisfaction Questionnaire developed by Betz, Menne, Starr and Kligensmith (1971) to measure student satisfaction (Dillard, 1989; Robertson, 1980; Wesley & Abston, 1983). Others have utilized qualitative data to obtain a more clear depiction of the perceptions and views of students (Fisher & Hartmann, 1991). However, these studies have reported contradictory results with regard to student satisfaction.

Despite the increase in the number of African American students attending PWIs, many researchers have found that AA-PWIs are less satisfied with the college environment than their white counterparts (Allen, 1987; Fleming, 1981; Fleming, 1984; Fisher & Hartmann, 1991; Love, 1993; Suen, 1983; Wesley & Abston, 1983). In a study conducted at Southwest Missouri State University (SMSU), Fisher and Hartmann (1991) examined the impact of ethnicity on the social experience of college students. A 23-item instrument consisting of open-ended questions was administered to 240 undergraduate students (120-African American; 120-White). Results revealed that African American students are less satisfied with their social experience than White students. African American students feel that they are constantly reminded of their minority status and alienated from campus life. African American students are far more likely to experience difficulty getting acquainted with students due to their ethnic background than their

White counterparts. African American students are also more likely to agree that participation in social and interest groups is affected by race.

Wesley and Abston (1983) assessed the satisfaction of African American students by administering the College Student Satisfaction Questionnaire (CSSQ). The CSSQ measures student satisfaction along six dimensions that include variables common to the college setting (Betz, et al., 1971). These dimensions include: (a) institutional policies and procedures affecting student life; (b) physical conditions of college life; (c) compensation for amount of academic work performed; (d) quality of education; (e) social life; and (f) recognition - perceived attitudes of faculty and students (Betz, et al., 1971).

The CSSQ was administered to a random sample of 46 undergraduates (23-African American; 23-white) at two PWIs (Wesley & Abston, 1983). Researchers found that the mean level of satisfaction among African American students was significantly lower on every dimension of satisfaction measured by the instrument than the mean level of their White counterparts (Wesley & Abston, 1983). The most significant differences between levels of satisfaction occurred in three dimensions: recognition, compensation, and social life (Wesley & Abston, 1983).

Wesley and Abston (1983) found that on the recognition dimension, African American students feel that they are not accepted by faculty or students as worthwhile individuals. Results revealed that African American students in the sample were also less satisfied with the compensation (grade received) for work performed than their White counterparts. Overall, African American students were also dissatisfied with the university on the social life dimension. They reported an inability to meet socially

relevant goals at the university, such as making friends, meeting compatible people, dating and participating in campus and informal social events.

Conversely, a number of researchers suggest that AA-PWIs are equally satisfied with their college experience, if not more satisfied than their White counterparts (Dillard, 1989; Robertson, 1980). Robertson (1980) conducted a study comparing the student satisfaction of AA-PWI and W-PWI. The CSSQ (Betz, et al., 1971) was administered to 451 students from one university (56-African American; 395-White). The students were randomly selected from 25 classes.

Responses from the students revealed that African American students are as satisfied as their White counterparts on most dimensions. African American students did demonstrate significantly lower levels of satisfaction with the university's system of rewards, feeling they had to work too hard to receive satisfactory grades. However, on the scales examining social life, working conditions and quality of education, African American students demonstrated higher, although not significantly higher, levels of satisfaction than their White counterparts.

Other studies have examined additional groups of students (Dillard, 1989). For example, the CSSQ (Betz, et al., 1971) was administered to 430 undergraduates (112-African American; 43-Caribbean; 275-white) at a PWI in the southwest. Results revealed no significant differences between the mean levels of satisfaction of White students and African American students, except with respect to social life. On this dimension, African American students reported lower levels of satisfaction than their White counterparts. Caribbean students, on the other hand, reported greater levels of overall satisfaction than both African American and White groups of students.

Comparative Studies on AA-PWI and AA-HBI

Researchers have examined the experiences and satisfaction of African American college students at predominately white and historically black institutions (Allen, 1987; Bohr, et al., 1995; Fleming, 1984; Love, 1993; Nettles, et al., 1986; Sedlacek, 1987; Stikes, 1984). This literature compared and contrasted institutional cultures, and the academic and social experiences of African American students at these types of institutions (PWI v. HBI).

The culture of the institution contributes largely to the level of integration and satisfaction students experience (Allen, 1987; Love, 1993; Sedlacek, 1987). The greater the distance between the culture a student brings with them to college and the culture of the institution, the greater the likelihood the student will feel alienated within the institutional setting (Nettles, et al., 1986). Conversely, the smaller the distance, the greater the likelihood that the student will be satisfied with their experience at the institution (Allen, 1987; Love, 1993).

Researchers have found that African American students attending PWIs typically experience difficulty in bridging the gap between their own culture and the prevailing culture at the institution (Allen, 1987; Sedlacek, 1986). This difficulty impedes the student's ability to project and implement their self concept as students and see oneself as part of the institution (Sedlacek, 1986; Stikes, 1984). As a result, African American students at PWIs experience significantly greater levels of alienation, discomfort, and dissatisfaction than their HBI counterparts (Allen, 1987; Bohr, et al., 1995; Love, 1993).

African American students that attend HBIs seem to be more satisfied with the college environment than African American students that attend PWIs (Allen, 1987;

20

Love, 1993; Nettles, et al., 1986; Suen, 1983). Love (1993) attributes this finding to the fact that HBIs were purposely established to educate African American college students and meet the needs, values and aspirations of these students, much like PWIs for White students. Hence, African American students on these campuses do not often face the issues of cultural incongruity that are experienced on PWI campuses (Allen, 1987; Sedlacek, 1986).

As a result of institutional culture, there are differences in the academic and social experiences of African American students at PWIs and HBIs (Allen, 1987; Fleming, 1984; Love, 1993; Sedlacek, 1987) With respect to the academic experiences, differences can be seen in (a) faculty-student interaction and (b) academic development.

Faculty-student interactions, when positive, serve as an indicator that the student is accepted by the faculty and university (Allen, 1987; Betz, et al., 1971; Love, 1993). Researchers have found that African American students have less satisfactory relationships with faculty at PWIs (Allen, 1992; Allen, 1987; Fleming, 1984). African American students report poor communication with White faculty and difficulty in establishing relationships with faculty at these institutions due to the social, cultural, emotional and academic distance between them (Love, 1993; Sedlacek, 1987). African American faculty at PWIs are viewed with less mistrust than White faculty (Love, 1993). They are looked to as role models for leadership for African American students on these campuses and are sought out for advice and guidance in dealing with racism and in adjusting to the university (Love, 1993; Sedlacek, 1987).

Conversely, African American students who attend HBIs indicate greater comfort in forming relationships with faculty than African American students attending PWIs

(Allen, 1987; Fleming, 1984). African American students at HBIs, especially seniors, show more involvement with faculty, feel that faculty are encouraging and helpful and report more informal contact (Allen, 1992; Fleming, 1984). African American students attending HBIs are also twice as likely to report excellent relations with White faculty on these campuses than their African American counterparts at PWIs (Allen, 1987).

Academic development is also an aspect of the academic experience that is examined in the literature on African American students at PWIs and HBIs. At PWIs, African American students are found to have lower grade point averages, greater academic disengagement, and lower aspirations for enrollment in postgraduate education than African American students attending HBIs (Allen, 1992; Allen, 1987; Bohr, et al., 1995; Fleming, 1984). African American students at PWIs also report greater feelings of alienation and isolation in many classrooms (Allen, 1992; Fleming, 1984; Love, 1993). Alienation and isolation negatively affect the academic development of African American students on these campuses (Allen, 1987). Fleming (1984) named this phenomenon the "intellectual deterioration of African American students."

At HBIs, however, African American students express fewer feelings of alienation and greater levels of satisfaction with the academic experience than African American students at PWIs (Allen, 1992; Allen, 1987; Love, 1993; Nettles, et al., 1986; Suen, 1983). African American students at HBIs report enhanced academic experiences due to support and understanding by faculty and demonstrate higher occupational aspirations than do AA-PWI students (Allen, 1992). In addition, African American students at HBIs also demonstrate greater levels of academic excellence and retention than their counterparts at PWIs (Love, 1993; Suen, 1983). As a result of all this, the

college experience appears most successful for African American students at HBIs (Allen, 1992).

Social alienation is also common among African Americans attending PWIs (Allen, 1992; Allen, 1987; Fisher & Hartmann, 1991; Love, 1993; Suen, 1983; Wesley & Abston, 1983). On these campuses, university sponsored events and activities generally cater to the interests of the majority student (W-PWI) and are considered socially unattractive to African American students (Allen, 1987; Love, 1993). In addition, African American students report racial discrimination, lack of integration, and often strained and uncomfortable peer interactions at PWIs (Allen, 1992; Allen, 1987). Suen (1983) also found that African American students at PWIs feel greater levels of social estrangement than White students on the same campus.

However, at HBIs, social events are said to indulge the interests of African American students. According to Allen (1987), social interactions for African American students at HBIs include comfortable peer group relations. Social alienation is usually not a factor for African American students attending HBIs (Love, 1993). These students report greater involvement in social events (Allen, 1992).

In conclusion, the literature suggests that certain factors affect the level of satisfaction students' associate with their college experience at different types of institutions. Studies on predominately white institutions have compared the student satisfaction levels of AA-PWIs and W-PWIs, representing a majority-nonmajority comparison. Some of these studies have found that African American students at PWIs are less satisfied with the college environment than their white counterparts (Allen, 1987; Fleming, 1981; Fleming, 1984; Fisher & Hartmann, 1991; Love, 1993; Suen, 1983;

Wesley & Abston, 1983), while others have found that African Americans at PWIs are equally satisfied with their college experience as their White counterparts (Dillard, 1989; Robertson, 1980).

Other studies have compared the student satisfaction levels of AA-HBIs and W-PWI, representing a majority-majority comparison. Much of this literature supports the notion that the academic and social experiences of African American college students at HBIs are more positive and integrative than the experiences of African Americans at PWIs (Allen, 1987; Bohr, et al., 1995; Fleming, 1984; Love, 1993; Nettles, et al., 1986; Sedlacek, 1987; Stikes, 1984).

Noticeably absent from the existing literature are studies that compare the satisfaction levels among two groups of students that represent non-majorities on their respective campus (AA-PWI and W-HBI). The present study addressed this gap in the existing literature.

CHAPTER THREE

Methodology

The purpose of this study was to examine levels of student satisfaction by ethnicity (African American v. White) at historically black (HBI) and predominately white (PWI) land-grant institutions. The study made within group and between group comparisons for AA-HBI students, AA-PWI students, W-HBI students, and W-PWI students based on majority and non-majority statuses on respective campuses. The present study was designed to test the following statistical hypotheses:

1. There is no significant difference in the levels of satisfaction with the college environment between African American students attending HBIs (AA-HBI) and African American students attending PWIs (AA-PWI).

2. There is no significant difference in the levels of satisfaction with the college environment between White students attending PWIs (W-PWI) and White students attending HBIs (W-HBI).

3. There is no significant difference in the levels of satisfaction with the college environment between AA-PWI students and W-PWI students.

4. There is no significant difference in the levels of satisfaction with the college environment between AA-HBI students and W-HBI students.

The levels of student satisfaction with the college environment were obtained from Student Opinion Survey (SOS) (American College Testing Program, 1997) data collected by participating HBIs and PWIs. The instrument was designed to collect various personal, academic, demographic and attitudinal (satisfaction) data from college students. The SOS measures satisfaction on two scales: college services and college

environment. The participating institutions in this study administered the SOS to a sample of their students between January, 1996 and September, 1998.

<div align="center">*Sample Selection*</div>

There were two sample selection processes performed for the purposes of this study. The first sample selection process was conducted by the researcher to obtain reasonably comparable institutions. The second sample selection process was performed by the respective institutions to administer the SOS instrument.

Sample selection of institutions

To select comparable institutions, the researcher established certain criteria. The first criterion was that one set of institutions had to be PWIs and the other set of institutions had to be HBIs. As part of this criterion, the percentage of minority students enrolled at these institutions (African American students at PWIs and White students at HBIs) had to be similar in number. This criterion was established so that the researcher could adequately test the statistical hypotheses of this study.

The second criterion was that both sets of institutions had to be land-grant institutions established by the 1862 and 1890 Morrill Acts. Land-grant institutions were founded as agricultural and mechanical, and agricultural and technical institutions with a science-based curriculum. They share the tripartite mission of expanding research, serving the community at-large, and extension. The researcher believed that this tripartite mission and science-based curriculum would guide the academic climates of the institutions, and create some similarity in the academic climates among these institutions.

The third criterion was that the institutions had to be convenient for the researcher in terms of data. Both sets of institutions had to have: (a) purchased and administered the

SOS instrument (American College Testing Program, 1997) to their students during a spring semester between January, 1996 and September, 1998, and (b) returned the results to ACT for processing and analysis to be included among the ACT SOS normative data users. This ensured an existing data set available to the researcher.

Using these criteria, the researcher selected four public, residential, land-grant universities to obtain data for this study. Between 70 percent and 90 percent of the student enrollments on these co-educational campuses were full-time students. Each of the universities offered a full range of baccalaureate programs and graduate programs through the master's degree, with two of the four offering graduate programs through the doctorate (Rodenhouse, 1998). These universities admitted students who ranked in the top 50 percent of their high school graduating class, and required (a) high school grade point average of 2.0 or better, and (b) SAT or ACT standardized test scores for admission (advancement placement, honors courses, and extracurricular activities and involvement were considered in admission decisions) (Barron's Educational Series, 1997).

The first set of institutions is PWIs established by the 1862 Morrill Act (PWIa; PWIb). In the 1998-99 academic year, PWIa enrolled approximately 21,400 undergraduate students. Of these undergraduate students, 18,345 students identified themselves as White (86%) and 864 identified themselves as African American (4%). The ethnicity of the other 10 percent of the undergraduate student population was identified as Hispanic, Native American, Asian, International, or unknown.

PWIb enrolled approximately 16,100 undergraduate students in the 1998-99 academic year. Eight-eight percent of the student population was identified as White (approximately 14160 students) and 6 percent were identified as African American

(approximately 930 students). The other 6 percent of the undergraduate student population was identified as Hispanic, Native American, Asian, Non-resident Alien, International, or unknown.

The second set of institutions was historically black land-grant institutions established by the 1890 Morrill Act (HBIa; HBIb). HBIa enrolled approximately 3,155 students. In the 1998-99 academic year, 160 students identified themselves as White (5%) and 2930 identified themselves as African American (93%). The remaining two percent of the undergraduate student population were identified as other.

HBIb enrolled approximately 2420 undergraduate students during the 1998-99 academic year. Of these undergraduate students, 93 percent of the student population were identified as African American (approximately 2264 students) and 6 percent of the student population were identified at White (approximately 136 students). The remaining one percent of the undergraduate student population was identified as other.

Sample selection by institutions

Although the institutions meet the criteria outlined above by the author, there are varying modes of survey administration for the SOS. Hence, the data collection method used by the selected institutions to obtain student samples may have differed. Specific information on the data collection method used by each of the selected institutions was unavailable. However, some of the modes of data collection most likely would have included (a) administering the instrument to students in classes, (b) mailing the instrument to students and (c) distributing the instrument to students through advisors, residence hall directors and other college personnel.

The population for the present study included all students at the selected institutions who identified themselves as African American and White. The final sample for the present study consisted of all African American and White students who were surveyed by the selected institutions and included in the institutions' samples (N=1683). Of the final sample, 447 students identified themselves as African American and 1236 students identified themselves as White. The total number of students at the PWIs included in the sample was 120 African American and 1193 White. The total number of students at the HBIs included in the sample was 327 African American and 43 White.

Instrumentation

The present study utilized data from the Student Opinion Survey (SOS) designed for four-year institutions (American College Testing Program, 1997). The SOS measures student use of and satisfaction with college services. In addition, the SOS is designed to measure the level of student satisfaction with the college environment. The paper and pencil instrument elicits self-reported data from respondents. There are general directions at the beginning of the SOS that instruct respondents on how to complete the questionnaire.

The 65 items on the SOS are designed around two scales: College Services and College Environment. The instrument also includes a section that elicits demographic information from respondents for data analysis purposes (American College Testing Program, 1997).

The 23-item College Services scale measures student use of and satisfaction with services and programs offered by the college. The items on the scale relate to college services and programs such as computer services, library facilities and services, student

health services, academic advising, and career planning services (American College Testing Program, 1997).

The College Environment scale, which is most relevant to this study, measures the level of student satisfaction with the college environment. This scale is designed around six subscales. The first subscale, Academics, includes 11-items that relate to academic aspects of the college. Respondents are asked to rate how satisfied they are with aspects of the academic environment such as (a) the availability of advisor, (b) the out of class availability of instructors, (c) the attitude of faculty towards students at this college, and (d) the variety of courses offered at this college (American College Testing Program, 1997).

The second subscale is Admissions. This subscale consists of 4 items. Respondents are asked to rate how satisfied they are with items such as (a) general admissions procedures, (b) availability of financial aid information prior to enrolling, (c) accuracy of information about college received prior to enrolling, and (d) college catalog and publications (American College Testing Program, 1997).

The third subscale is Rules and Policies. This subscale consists of 6 items that measures student satisfaction with university codes and regulations. Examples of items from the Rules and Policies subscale include satisfaction with (a) the student voice in college policies, (b) rules governing student conduct at the college, and (c) residence hall rules and regulation (American College Testing Program, 1997).

Facilities is the fourth subscale. This subscale consists of 8-items that assess student satisfaction with student facilities and areas. Respondents are asked to rate how satisfied they are with items such as (a) classroom facilities, (b) study areas, (c) student

union, and (d) general condition of buildings and grounds (American College Testing Program, 1997).

Registration is the fifth subscale. This subscale includes 4 items that elicit data about student satisfaction with registration. Examples of items from the Registration subscale include student satisfaction with (a) general registration procedures, (b) availability of the courses you want at times you can take them, and (c) billing and fee payment procedures (American College Testing Program, 1997).

The last subscale, identified as General, consists of 9 items. These items assess satisfaction with aspects of the college such as (a) racial harmony at the college, (b) opportunities for student employment, (c) opportunities for personal involvement in campus activities, and (d) attitudes of the college non-teaching staff toward students (American College Testing Program, 1997).

Response options for the College Environment scale are arranged on a Likert-type scale. The scale measures satisfaction on a 5-point scale. The response options for this scale are 1=very satisfied, 2=satisfied, 3=neutral, 4=dissatisfied, and 5=very dissatisfied. Respondents are also able to select from a sixth column (does not apply) if an item is not applicable to them or their college (American College Testing Program, 1997).

Reliability and Validity

The reliability of quantitative instruments refers to the whether the instrument produces the same results consistently over time and populations (Gall, Borg, & Gall, 1996). The reliability of the College Environment scale has been examined using (a) test-retest reliability and (b) the generalizability theory (G-theory). The reliability of the SOS test administration and scoring procedures has also been examined using inter-tester

reliability. Any test that yields scores at or above .80 is sufficiently reliable for research purposes (Gall, et al., 1996).

Test-retest reliability measures the correlation between scores on a test administered to the same sample on two different testing occasions (Gall, et al., 1996). To determine test-retest reliability, the instrument was administered to students at one university with a two-week interval between administrations (Belcher, 1995; Morner, 1995).

On the two administrations, approximately 90 - 98 percent of the responses were identical on categorical items (Belcher, 1995; Morner, 1995). Between 57 - 67 percent of the responses on the five-choice satisfaction items were identical, with 93 - 97 percent of responses being within one point on the two administrations (Belcher, 1995; Morner, 1995). Correlation coefficients were calculated for the College Environment scale. The correlation coefficient for the scale was .95 (Belcher, 1995). This suggests that the scale is sufficiently reliable for research purposes.

Valiga (1990) utilized the G-theory to estimate the reliability of measures on the College Environment scale of the SOS in identifying aspects of the institution with which students are more or less satisfied. G-theory provides a framework for accurately assessing reliability with respect to the applications intended for the data collected (Gall, et al., 1996; Valiga, 1990). The researchers calculated reliability of the College Environment scale using generalizability coefficients. The generalizability coefficient for the scale ranged from .84 to .99 (Valiga, 1990). This suggests that the College Environment scale is highly reliable.

The reliability of the SOS instrument has been examined with respect to measurement error introduced by test administrators and test scores. This is referred to as inter-tester reliability (Gall, et al., 1996). Using a form of the inter-tester reliability, reliability estimates above .90 were found for the SOS instrument (Belcher, 1995). This suggests that the procedures for test administration and test scoring for the instrument are highly reliable.

Validity of an instruments refers to the whether the instrument accurately measures what it is designed to measure to ensure that specific inferences made from the test scores are accurate and useful (Gall, et al., 1996; Suskie, 1996). One of the ways that the SOS has been examined, in terms of validity, is content validity.

Content validity measures whether an instrument's items are representative of the construct that the instrument is designed to measure (Gall, et al., 1996). A review of literature, content experts' evaluation and pilot testing of the instrument were each used to enhance the content validity of the SOS.

Data Collection Procedures

The researcher used data from institutions that administered the SOS instrument between January, 1996 and September, 1998. Data were obtained from history files maintained by ACT. ACT provided all data needed to complete the study.

The researcher requested in writing that a data diskette containing raw data from the SOS for each institution type (HBI v. PWI) be mailed to the researcher. The researcher obtained the diskette with two ASCII formatted data files. One file contained data for the two historically black institutions. The other file contained data for the two predominately white institutions. All identifiers such as institution names, institutional

codes, and student identification numbers were stripped from the data and replaced with dummy codes to ensure confidentiality. The files containing data for the historically black and predominately white institutions were merged into one document for analysis.

Data Analysis Procedure

To best explore student satisfaction by institution type (HBI v. PWI), it was first necessary to provide codes for each type of institution. This was so that the researcher could easily distinguish between data from students at the historically black institutions and students at the predominately white institution. The researcher used the following codes for the institution types: 1= HBI and 2=PWI.

The researcher then needed to sort data by ethnicity and institution type. The SOS includes a section that elicits background information from respondents. One item included in this section asks respondents to indicate the racial/ethnic group. Responses included: 1=African American/Black, 2= Caucasian/White, 3= Native American (Indian, Alaskan, Hawaiian), 4=Mexican American/Mexican origin, 5=Puerto Rican/Cuban/other Latino or Hispanic, 6=other, and 7= I prefer not to respond. The researcher selected only those respondents who indicated (1) African American/Black and (2) Caucasian/White in this section. The researcher then sorted data into fours groups (AA-PWI, AA-HBI, W-PWI, and W-HBI).

Data were analyzed using the Statistical Package for Social Sciences (SPSS) (Kellough, 1985). Chi-square analyses were used to test for differences between group responses on the variables included on the six College Environment scales of the SOS instrument. These scales are (a) Academic, (b) Admissions, (c) Rules and Policies, (d) Facilities, (e) Registration, and (f) General. Twenty-four comparisons were made.

The first hypothesis posed in the present study examined differences in the levels of satisfaction with the college environment between African American students attending HBIs and African American students attending PWIs. To test this hypothesis, the researcher first grouped the African American respondents into two groups – AA-HBI and AA-PWI. To examine differences in levels of satisfaction with the college environment, chi-squares for each of the six College Environment scales were calculated.

The second hypothesis examined differences in the levels of satisfaction with the college environment between White students attending PWIs and White students attending HBIs. To test this hypothesis, the researcher first grouped the White respondents into two groups – W-PWI and W-HBI. To examine differences in levels of satisfaction with the college environment, chi-squares for each of the six College Environment scales were calculated.

The third hypothesis posed in the present study examined differences in the levels of satisfaction with the college environment between African American students attending PWIs and White students attending PWIs. To test this hypothesis, the researcher first grouped the respondents at the PWIs into two groups – AA-PWI and W-PWI. To examine differences in levels of satisfaction with the college environment, chi-squares for each item of the six College Environment scales were calculated.

The fourth hypothesis examined differences in levels of satisfaction with the college environment between African American students attending HBIs and White students attending HBIs. To test this hypothesis, the researcher first grouped the respondents at the HBIs into two groups – AA-HBI and W-HBI. To examine differences

in levels of satisfaction with the college environment, chi-squares for each item of the six College Environment scales were calculated.

In conclusion, this study was designed to examine African American and White student satisfaction with the college environment by institution type. The methodology described in this chapter was deemed sufficient to elicit data that explored the statistical hypotheses posed in the study.