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Comparing engagement : predicting African American student success at predominately white institutions and historically black colleges and universities.

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COMPARING ENGAGEMENT: PREDICTING AFRICAN AMERICAN STUDENT
SUCCESS AT PREDOMINATELY WHITE INSTITUTIONS AND
HISTORICALLY BLACK COLLEGES AND UNIVERSITIES

by
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B.A., University of Louisville, 2003
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A Dissertation Approved on

November 28, 2011

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ii

DEDICATION

This dissertation is dedicated to my parents, Tony and Melinda Mattingly.

Without their encouragement and guidance, I would have never made it this far. Thank

you for not only believing in me, but instilling in me from day one the importance of

education. The sacrifices they made to ensure I was able to receive a solid Catholic

education provided the basis for my successes at the high school and college levels. For

this, I am forever grateful and cannot say thank you enough. This work is decided to

them.

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Thank you to my husband, Scott for sticking with me through this somewhat arduous process. No one else has experienced the trials and tribulations along with me and understands what I have experienced to get to this point. I cannot thank you enough for continuing to motivate me and taking an interest in my progress. When I was ready to give up, your words provided solace for me to continue along and finish, for which I am thankful. My hope is that our daughter Claire understands the importance of education just as the two of us have.

I must also thank my extended family for their support. Never a family event went by without someone checking in on my progress and inquiring when I might be finished or how many pages I had written. When problems occurred with my data, I know you were all praying with me that a resolution could be found. Special thanks to my Aunt Denise for modeling the way for me all these years, as well as my grandparents who also took special efforts to encourage me to excel. I hope I have been able to do the same for my goddaughter Brooke.

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I hope that fellow first-generation college students are provided with the tools and encouragement that I have to be able to succeed this far.

ABSTRACT

COMPARING ENGAGEMENT: PREDICTING AFRICAN AMERICAN STUDENT
SUCCESS AT PREDOMINATELY WHITE INSTITUTIONS AND
HISTORICALLY BLACK COLLEGES AND UNIVERSITIES

Christian Gamm

November 28, 2011

The study examined the relationship between African American student
engagement and student background variables through the context of institution type.
The study focused on the impact of student background variables (mother's level of
education, father's level of education, enrollment status, sex, and grade point average) on
student engagement, while taking into account institution types. Differences in
engagement levels between different types of institutions were explored. Engagement
variables were measured as benchmarks of effective educational practice gathered from
the National Survey of Student Engagement. The results indicated that African American
students had significantly higher grade point averages when attending Historically Black
Colleges and Universities (HBCUs) as compared to African American students who
attended Predominately White Institutions (PWIs). Additionally, institution type was
found to be a significant predictor of all NSSE benchmark scores with the exception of
Level of Academic Challenge. Enrollment status was found to be a significant predictor

of all NSSE benchmark scores with the exception of Supportive Campus Environment, and grade point average was a significant predictor of all NSSE benchmark scores. Students at HBCUs scored reported significantly higher levels of student engagement on all NSSE benchmarks with the exception of Level of Academic Challenge when compared to students at PWIs. Surprisingly, no significant differences were found in institutional African American six year graduation rates when comparing students by institution type. Implications for practice and suggestions for future research are also considered.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

Overview

The purpose of this dissertation was to examine the differences in undergraduate

student engagement of African American students at historically Black colleges and

universities (HBCUs) compared to the student engagement of African American students

at predominately White institutions (PWIs). This study was important in determining if

there were institutional differences in the factors that lead to African American

undergraduate engagement, which can be hypothesized as an important factor related to

degree attainment. The dissertation focused on the existing literature in higher education

regarding African American students, engagement, and persistence and provided a

theoretical and conceptual framework from which the researcher was able to work.

Using the theoretical framework, the study examined student persistence through an

individual, social, and organizational perspective. The literature provided the researcher

with key factors to examine to determine if they had predictive power in determining

correlates of persistence to graduation. From the literature review, research questions

were created to guide the study. The dissertation discusses data collection, provides an

analysis of the data, and reports findings and implications for future research.

Problem Statement

This study addressed several issues. First, it determined what individual, social, and organizational factors are predictors of student engagement for African American college students. Second, it examined the factors in the context of institution type. Last, this study filled a gap in the student engagement literature by measuring student engagement scores via an institutional context. Few studies exist that measure the influence of institutional context on the experiences of African American college students (Strayhorn & DeVita, 2010). Porter argues that institutional structures have an effect on student engagement that is both predictable and significant (2006).

Student engagement is an important topic in the world of higher education and student affairs. George Kuh determined that student engagement represents the time and effort students devote to activities that are empirically linked to desired outcomes of college and what institutions do to induce students to participate in these activities (Kuh, 2001). Kuh also points out that students gain more from their academic experience and other college aspects when devoting more time and energy to certain tasks that require more time than others. As a result, engagement research can be linked to institutional policies and practices to assist in bolstering student retention and persistence to graduation. Engagement, therefore, can be viewed as an important factor in determining institutional accountability.

The topic of retention is of primary importance to the world of higher education. Reason argued that student retention, "has been the primary goal for higher education institutions for several decades (2009, p. 659)." Almost half of the students entering community colleges and almost a quarter of students entering four-year institutions leave

at the end of their first year (Tinto, 1993). Additionally, 57% of full-time undergraduate students who began study in 2003 at four-year institutions completed a bachelor's degree at the institution where they began their studies within 6 years (Knapp, Kelly-Reid, and Ginder, 2011). This statement is further corroborated by figures from the American College Testing Program, which found that only 55.9% of first year students at two-year colleges persist to the second year, while 73.9% of first year students at public four-year institutions persist to the second year (American College Testing, 2010).

While the cost of college tuition continues to rise across the country, students are becoming more consumer-minded and are anxious to get the maximum results from their tuition dollars. Between 1997-1998 and 2007-2008, the cost of undergraduate tuition, room, and board at public institutions rose by 30% and by 23% at private institutions, after adjusting for inflation (National Center for Education Statistics, 2009a). Students and parents alike want to make sure that they are getting the best return on their investment. In choosing an institution to attend, students and parents want assurance that there is a greater likelihood they will not only begin their study at that institution, but also graduate from that institution.

Cross and Slater (2001) indicated that while just under 30% of White Americans hold a bachelor's degree, only 15% of African Americans hold a college degree. More recently, the U.S. Census Bureau found that in 2007, 29.1% of White Americans held at least a bachelor's degree, while the figure had only risen to 17.3% for Black Americans (U.S. Census Bureau, 2007). Additionally, White Americans with a bachelor's degree earn 46% more annually than those with just a high school diploma, while Black bachelor's degree holders earn 41% more than Black Americans with just a high school

3

degree (U.S. Census Bureau, 2009). By researching how to retain African American college students, the expectation is that this gap in educational attainment can be condensed, thus narrowing the achievement and economic gaps in the United States between White and Black Americans.

Purpose

The purpose of this dissertation was to explore variables that may have predictive validity in relation to student engagement for African American college students through the context of institution type. Further, the variables were examined using two general types of institutions: predominately White institutions (PWIs) and historically Black colleges and universities (HBCUs). This dissertation included variables that have been found in previous studies to have predictive validity regarding persistence to graduation, which is posited as a result of high student engagement. Data were analyzed from student-level responses to the National Survey of Student Engagement (NSSE). This study helped to fill a gap in the research, as there are few studies that measure student engagement and student outcomes (Gordon, Lundlum, & Hoey, 2008). Through determining the factors that contribute to student engagement, educational researchers can help provide solutions to the issue of student retention in higher education, so institutions can effectively implement policies and practices regarding engagement and persistence on their respective campuses.

Significance of Study

This study is significant in that it contributes to the existing body of literature regarding engagement of African American college students. Further, the study examined engagement through the lens of two different institution types, PWIs and

4

HBCUs. The worth and accountability of HBCUs has been publicly questioned in recent years (Ashley, 2007). Many people think the poor resources at HBCUs undermine the educational ability of their students, while others believe that segregated institutions have outlived their usefulness in today's society (Fleming, 1984). Using data from the Integrated Postsecondary Education Data System, Davis found institutional barriers to student success such as student loan availability, campus climate, and competitive enrollment standards during an analysis of HBCUs (2009). Conversely, Howard-Hamilton notes that HBCUs have been found to be more effective and productive than PWIs when examining expenditures per student, as well as producing more Black college graduates that continue on to earn doctoral degrees (2004).

Knowing these challenges, it is important for campus administrators at PWIs and HBCUs to determine the reasons why African American students choose to remain enrolled at their institutions, and to be able to put this research into use for everyday practice and policy making. Examining the reasons why students choose to continue to enroll or not can help administrators understand the type of students they are attracting, as well as to identify where they are failing those students that the institution may subsequently lose, and where they are succeeding. While this knowledge is important for any institution type, it is critical for financially strapped HBCUs who desperately depend on student enrollment for their survival (Jost, 2003).

This dissertation examined the existing literature regarding African American students and their achievement when attending PWIs and HBCUs. Much of the literature regarding African American students at HBCUs compares these students to other African American students at PWIs. Due to the existing achievement gap across all levels of

public education in the United States, some African American students are unprepared

or underprepared to begin postsecondary work once arriving on college campuses, thus

their achievement is not equal to that of their White counterparts at the college level.

This achievement gap has been theorized as having been created from the compounding

of many decades of unequal education and lack of educational resources (Nsiah, 2010).

While there has been a wide variety of research conducted regarding student

retention in higher education, this dissertation is different, as it focused on a specific

student subgroup and two general types of institutions. This research was able to

enhance the current body of literature and helped develop strategies to positively add to

the discussion of African American student engagement and persistence by determining

the predictors of persistence by examining student engagement. Additionally, there are a

small number of longitudinal studies in existence that examine African American student

retention by institution type from the first year through graduation. Many of the studies

cited in Chapter II only examine retention through the first semester or first year of the

students' college experience. By studying the prior experiences of college seniors and

their engagement, this study begins to fill an existing gap in the literature regarding

African American college student engagement and possible degree completion.

There has been much research conducted examining the experiences and entering

characteristics that are necessary for college students to be retained. However, this body

of knowledge does not always point to specific factors regarding the retention of African

American students. As evidence of this lack of in-depth knowledge, Lamont Flowers

noted, "...despite the research on college student retention, there is a dearth of

scholarship that sought to analyze and synthesize the empirical literature on African-

American student retention" (2004, p. 24). DeSousa and Kuh point out that when compared to White students, research regarding the experiences of Black students in higher education is limited (1996).

It has been well documented that African American students often enter college with different academic and social backgrounds as compared to White students, so it should be understood that this student group will need different strategies to assist with retention efforts (Howard-Hamilton, 2004; Palmer, Davis, & Hilton, 2009). These strategies are often implemented via institutional engagement measures. Exploring demographic characteristics is important in this study because persistence rates vary by between-group differences. Various studies have been conducted to examine predictors of retention, but the population is not always specified into one particular subgroup or particular institution type. Institution type was taken into account to determine if there were any differences in African American student engagement at a PWI versus an HBCU, and if so, where those differences existed. This research study extended what was already known regarding student engagement and retention, but focused on a specific subgroup and two general types of institutions that enroll large numbers of African American students.

Research Questions

The research questions that were addressed in this study are listed below. Factors that were examined included social, economic, campus involvement/engagement, academic, and attitude/motivational factors.

1. Do student background variables differ by institution type?

2. Do background variables have an impact on student engagement scores?

3. Are there institutional differences in NSSE (National Survey of Student Engagement) benchmarks scores for African American students?

4. Are there differences in the graduation rates of African American students at PWIs and HBCUs?

From this study, the researcher was able to determine what factors can predict African American student engagement and persistence when institution type is held constant.

<div align="center">Definitions of Terms</div>

The following definitions apply to this study:

1. Background variables – include characteristics that define the student's prior experience when entering into higher education. These variables include race, sex, parental level of education, grade point average, and enrollment status. For purposes of this study, institution type was utilized as a background variable for purposes of statistical analysis.

2. Carnegie classification - classification system of colleges and universities organized by degree level and specialization: doctorate-granting universities, master's level institutions (called comprehensive colleges), undergraduate liberal arts colleges, two-year colleges, and specialized institutions, with all but the two-year colleges further broken into subcategories (McCormick & Zhao, 2005, p. 52).

3. Cultural capital – institutionalized, widely shared, high status cultural signals (attitudes, preferences, formal knowledge, behaviors, goals, and credentials) used

for social and cultural exclusion from jobs, resources, and high status groups (Lamont & Lareau, 1988, p. 156).

4. Dropout – includes anyone leaving a college at which he or she is registered and failing to re-enroll in a subsequent academic term (Spady, 1970).

5. First generation college student – refers to students whose parents (both mother and father) have not attended college (Bui, 2002).

6. Historically Black College and University (HBCU) – Black academic institutions in the United States established prior to 1964 whose principal mission was, and still is, the education of Black Americans (Roebuck & Murty, 1993, p. 3).

7. Minority students – for purposes of this study, minority students refer to students who self-identify as African American students, unless otherwise specified. Other non-White populations are not included in this study.

8. Persistence – continual enrollment in higher education toward a goal; persistence to graduation would refer to a student's continual enrollment in higher education to the point of graduating from an institution.

9. Predominately White Institution (PWI) – for purposes of this study, PWIs included American institutions of higher education serving White populations that are not classified as HBCUs, Hispanic Serving Institutions (HSIs), or tribal colleges.

10. Retention – refers to student enrollment over successive semesters; thus, the student is retained at the institution.

11. Retention rate - A measure of the rate at which students persist in their educational program at an institution, expressed as a percentage. For four-year

institutions, this is the percentage of first-time bachelor's (or equivalent) degree-seeking undergraduates from the previous fall who are again enrolled in the current fall. For all other institutions this is the percentage of first-time degree/certificate-seeking students from the previous fall who either re-enrolled or successfully completed their program by the current fall (IPEDS, 2010).

12. Social capital – conceptual tool existing in the relationships among persons, or more specifically, existing within some aspect of social structure and facilitating certain actions with persons (Coleman, 1988).

13. Socioeconomic status (SES) – a measure of an individual's or group's standing in the community. It generally relates to income, educational attainment, wealth, and occupation of an individual or group (Mukherjee, 1999).

14. Stop-out – students who have left the institution but later return after an extended absence (Tinto, 1987, p. 9).

15. Student engagement – represents the time and effort students devote to activities that are empirically linked to desired outcomes of college and what institutions do to induce students to participate in these activities (Kuh, 2001).

Summary of Chapter I

The study of college student engagement and persistence has been a topic of much research within education. As the cost of college tuition continues to rise, institutional retention rates and persistence to graduation rates become increasingly important in determining an institution's return on investment to the student consumer as well as institutional stakeholders. Persistence rates are also important in developing external expectations of university accountability. By determining the factors that can

help predict persistence to graduation, institutions and educational researchers can be more strategic when implementing programs and policies to help African American college students graduate with a bachelor's degree. It is important to note that strategies employed to assist White and African American students persist to graduation may not be the same, as the two student groups enter the higher education landscape with differing background characteristics. Overall, this study adds to the existing body of literature regarding student engagement and persistence to graduation for African American college students, and how the factors that may be used to predict persistence to graduation may differ between HBCUs and PWIs.

CHAPTER II

REVIEW OF LITERATURE

Overview

This dissertation examined student engagement and predictors of persistence for

African American college students at two different types of institutions, predominately

White and historically Black. This section includes the literature review and is divided

into five main sections, followed by a brief summary of each. The literature in this

chapter provides an overview of persistence in higher education, and provides both a

theoretical and conceptual framework with which to examine student engagement and

persistence to graduation through. Many of the studies utilize longitudinal data and

examine persistence to graduation or continual enrollment as the main criterion variables.

The variables that have been distinguished in the literature review helped guide the

variables that were examined when studying student engagement, which can help predict

persistence to graduation for the study employed in this dissertation. Additionally, the

literature review examined African American students in the educational landscape, as

well as the defining characteristics of HBCUs. The literature review was meant to serve

as a basis of understanding fundamental issues related to student engagement and

persistence to graduation.

Student Engagement in Higher Education

Student engagement in higher education presents an area of research and focus for colleges and universities. The most accepted definition of student engagement is that of time and effort students devote to activities linked to the outcomes of college and what institutions are doing to induce students to participate in the activities (Kuh, 2001). Others have used defined student engagement more loosely as an indicator of institutional excellence (Axelson & Flick, 2011). Student engagement examines the question of how to involve students in activities in such a way that they are able to acquire skills and knowledge. While there has been some discussion over the impact of engagement activities for all types of student subgroups and populations, most research points out student engagement has a positive effect on students, and particularly positive effects on grades and persistence (Kuh, 2009b). Overall, student success in college has been found to depend on students' level of engagement (Pascarella & Terenzini, 2005).

Students can be seen as benefiting from purposeful student engagement measures. Students from all backgrounds and all levels of academic preparation have been found to be positively impacted from being engaged on their campuses (Kuh, 2009b). While much research has been conducted regarding student engagement, there are still areas for further exploration. While it has been found that student participation leads to higher engagement, the particular aspects of participation that make an impact is important for colleges and universities to determine. Additionally, research can be conducted on how institutions can continue to devise methods to engage students to participate in educationally purposeful activities. Further research regarding how to engage online-learners, as well as how to use engagement for policy making and accountability will

continue to be important areas to explore (Kuh, 2009b). However, what is known regarding purposeful student engagement is that students from all backgrounds can be impacted and as a result, increase their odds of obtaining a bachelor's degree (Kuh, 2009b).

Just as students benefit from purposeful engagement practices, institutions are also beneficiaries of engagement on their campuses; this benefit includes higher degree completion rates as a result of higher student engagement. Student engagement is important as the current focus on accountability has brought attention to undergraduate student learning and student learning outcomes (Seifert, Drummond, & Pascarella, 2006).

Hu (2011) conducted a study using two survey administrations and the Washington State Achievers program to determine if a relationship existed between student engagement and persistence. Student persistence was defined as graduating from the institution. Social engagement levels were defined by participation in Greek life, residence hall activities, cultural heritage group participation, and community service activities. Academic engagement levels were defined by working with other students outside of class, discussing coursework outside of class with faculty and other students, and working harder than expected to meet instructor expectations. Findings indicated increased levels of academic engagement without high levels of social engagement were negatively related to student persistence. High levels of social engagement were positively related to persistence. High levels of both social and academic engagement were associated with a higher likelihood of a student persisting (Hu, 2011). As a result of the study, engagement appeared to have an important association with student persistence.

Much research has determined that student engagement occurs irrespective of student entry and background characteristics. Walpole found in a longitudinal study that low SES students engaged in fewer activities, spent less time studying, and reported lower GPAs when compared to higher SES students (2003). While academic performance and minority status often have a negative relationship, African American and Hispanic students have been found to be more engaged in college than White students (Greene, Marti, & McClenney, 2008). However, this study also found that at the community college level, while African American students were more engaged, they demonstrated lower academic outcomes than their White peers. Other than Asian-American students, Hu and Kuh (2002) found all minority students were more likely to be engaged at higher than average levels when compared to White students.

Persistence in Higher Education

Student retention and persistence is a challenging problem for universities; numerous studies have examined barriers to persistence as well as methods to improve persistence. The failure of students to complete their higher education coursework is a growing concern among administrators, researchers, students, and parents (Braxton, 1999). The loss of students on campuses creates financial difficulties for universities and can negatively impact their accountability to stakeholders (Lau, 2003). Persistence is extremely critical for private and small institutions that depend on student tuition in order to operate effectively. Enrollment numbers drive financial support from the public sector, so continued enrollment numbers are critical for financial viability (Wetzel, O'Toole, & Peterson, 1999).

Colleges are universities are making efforts to be able to understand what factors can lead to poor student persistence and what methods can be employed to enhance student retention rates. The world of higher education is very interested in learning the factors that allow some students to persist on campuses and others to fail. What universities do know regarding student persistence is that there are different predictors for retaining a student based on the student background, institutional landscape, and student entering characteristics (Johnson, 2008).

A college degree is important for economic security later in life; however, it has been found that slightly less than 30% of White adults hold a college degree, as compared to 15% of African American adults (Cross & Slater, 2001). In 2007, Americans with a high school diploma earned approximately $31,000 per year, while those with a bachelor's degree earned an average of $57,000 (United States Census Bureau, 2009). On average, a college degree has been found to double the average income of African Americans over those that do not have an education higher than a high school diploma (Cross & Slater, 2001). Cross and Slater point out that in 2000, the college graduation rate for White students was 59%, and the college graduation rate for African American students was only 37%. Further, the African American rate decreased one percentage point from the previous year. While there are disparities in educational attainment between Black and White persons, other factors such as first-generation status, socioeconomic status, and gender also play a part in the retention of college students (Kreysa, 2006).

High school effects and characteristics have also been examined to determine persistence to graduation. Johnson examined institutional data, high school data, and

individual level characteristics from one doctoral/research university to create a model to predict persistence to graduation (2008). Findings indicated students were more likely to persist to the second year of college if they came from higher family incomes, lived on campus during their first semester, and had either grants, work study, or scholarships to finance their education, as opposed to student loans. Additionally, students were less likely to persist to the second year if they were first generation students, came from greater than a 60 mile radius to the institution, and entered the institution from a high school where a higher percentage of students received free lunch (Johnson, 2008). The same findings were determined when examining the probability of graduation within five years from the institution, but findings were not significant due to small sample size.

Wohlgemuth et al. examined persistence and persistence to graduation after four, five, and six years of college enrollment (2007). Logistic regression was used to predict the likelihood of a student graduating, using demographic characteristics, ability variables, environmental variables, and financial aid data at one Midwestern institution. Results indicated that ethnic minority students were significantly less likely to be retained during the first year of enrollment, while females were more likely to be retained during the first year. Students with higher ACT scores were more likely to be retained, while students who participated in the university honors program were less likely to be retained in the third and fourth years of enrollment. Additionally, as the amount of financial aid increased, the likelihood of a student graduating also increased. Regarding graduation rates, ethnic minorities were found to have lower graduation rates and females were found to be more likely to graduate after four, five, and six years of enrollment. Students with higher ACT scores were more likely to graduate in four years, while student athletes

17

had significantly lower four year graduation rates than non-athletes (Wohlgemuth et al., 2007). From this study, it is evident that persistence to graduation is affected in different ways by gender, race, academic ability, and financial status.

<p align="center">Theoretical Models of Persistence</p>

Over the years, educational researchers and university administrators have used theoretical models of persistence to help explain the phenomena of college persistence. The models take into account a variety of student and institutional factors that are used to help explain why a student may persist or leave the institution. While there are a variety of persistence models available, this section of the literature review will examine models developed by Spady, Tinto, and Braxton. Throughout the literature review, a number of articles point out the impact of social and academic integration in relation to understanding the student retention puzzle.

William Spady's Sociological Model of the Dropout Process

William Spady sought to examine the dropout process through the academic and social systems frameworks within universities. Spady noted that previous retention studies failed to account for students who transfer but complete degrees on time, as well as students who receive a degree at the home institution or transfer institution after a delay of a semester or more (Spady, 1970). He built his model from French philosopher and sociologist Emile Durkheim's findings surrounding suicide, likening committing suicide to dropping out of school, whereas in both instances the individual is making a choice to leave the social system of which they are a part (Durkheim, 1951).

Spady's retention model points to the family background of the student as the foundation or basis for success in college. All other factors in the model that lead to

persistence or withdrawal flow directly from the family background variable (Spady, 1970). His model specifically examines withdrawal from college versus academic dismissal.

Spady's main thesis rests on the idea that withdrawal is dependent on the interaction between the person and his/her environment, recognizing that individuals bring something to their environment, and within this environment, there are interworking social and academic systems through which a student must maneuver in order to be successful (Spady, 1970). Spady notes that the successful interaction with the college environment comes from "assimilating successfully into both the academic and social systems of college. To the extent that the rewards available in either system appear insufficient, however, the student may decide to withdraw (p. 77)."

Vincent Tinto's Model of Student Interaction

Vincent Tinto's 1975 model of student persistence is often regarded as a seminal work regarding retention in higher education. Tinto premised his model on the work of William Spady, creating it from an extensive literature review of work surrounding the topic. The central idea of Tinto's model is the concept of integration. His retention model is based on the idea that whether a student persists or drops out of college is strongly predicted by their degree of academic integration and social integration to the university. Academic and social integration were factors noted as evolving over time as integration and commitment interacted (Tinto, 1975, 1993). Commitment includes both goal and institutional commitment. Tinto's model is based on the thought that students enter college with certain commitments to finishing college. Additionally, student background characteristics and individual attributes are an important foundation of the

model. Inherent in the model is the desire to distinguish between academic failure and voluntary withdrawal. Interactions with faculty members were noted as being likely to enhance academic integration. Tinto notes in later revisions of his model that college students are uncertain regarding their educational and occupational goals (1987). The higher the goal of college completion and/or the level of institutional commitment, the greater the probability will be of persisting. Tinto's 1993 model is shown below in Figure 1.
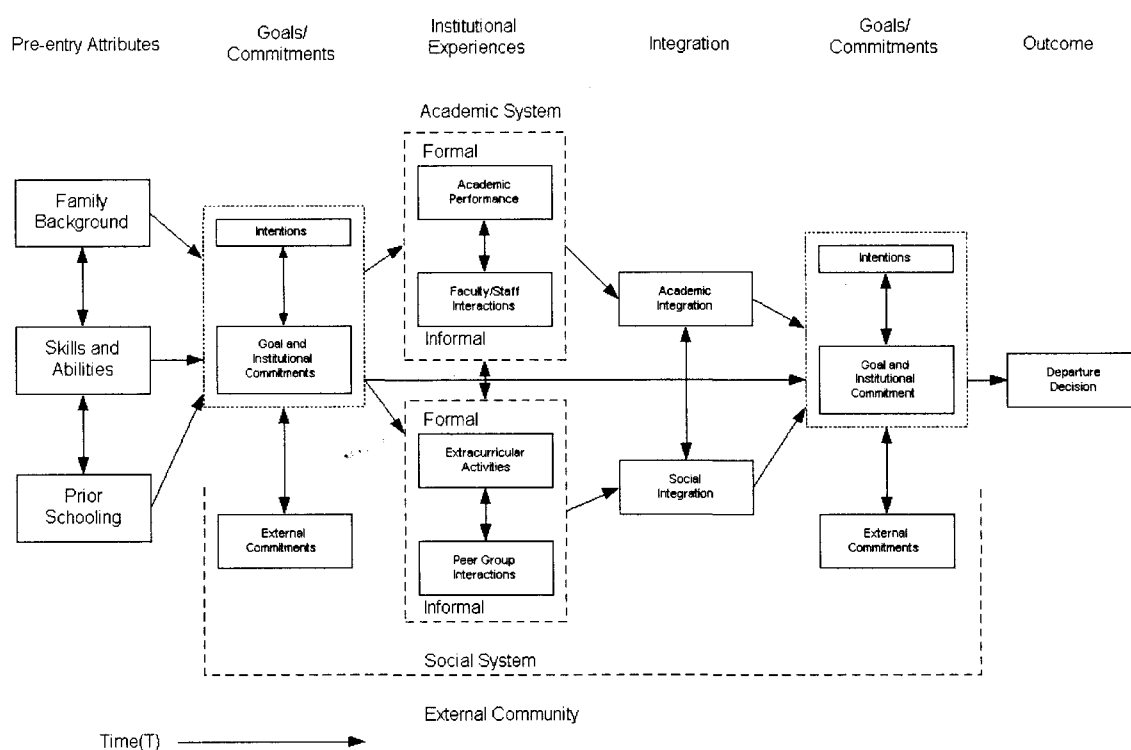
Figure 1: Tinto's model of student persistence (from Tinto, 1993)

One limitation that exists within Tinto's early work regarding retention is the incomplete definition of "integration" and how it can be achieved. Additionally, Tinto's early work does not take into account outside societal factors that may affect retention, but rather only examines inside institutional factors that are related to the student, so the

model was later revised for these inclusions in 1993. Tinto expanded his concept of retention and determined that "persons from families, communities, and/or schools which are very different in behavior and norms from those of the college are faced with especially difficult problems in seeking to achieve membership in the communities of college" (1988, p. 465). Tinto later was able to incorporate individual characteristics such as socioeconomic status, high school experience, sex, place of residence, academic ability, race, as well as motivational and expectation characteristics (Kreysa, 2006). However, Tinto's model of student departure fails to recognize cultural variables, thus making its applicability to minority students problematic (Guiffrida, 2006).

Braxton's Theory of Student Departure

More recently, John Braxton has been able to enhance the research regarding college student retention by offering an institutional perspective on the topic. Braxton, Sullivan, and Johnson (1997) point out that Tinto's theory has "near-paradigmatic status" among the various theories of college student departure (p. 108). Braxton contributes to the research surrounding student departure, with the belief that Tinto's model of student interaction is "partially supported" but "lacks empirical internal consistency (Braxton, 2000, p. 3)." Through researching Tinto's interactionalist theory, Braxton, Hirschy, and McClendon determined that the model is not applicable to all institution types, particularly commuter settings (2004).

Given the complex nature of college student retention, multiple theoretical perspectives from a variety of academic disciplines should be employed in order to fully work towards a solution to the persistence problem (Braxton & Mundy, 2001). Much of the work of Braxton focuses on the organizational perspective of college student retention

21

and how the organizational structures of an institution can affect persistence. The mode of organizational functioning at an institution has been found by Braxton to have the potential to impact college student departure (2000). Types of organizational structures/functions include collegial, rational-bureaucratic, political, and anarchical (Birnbaum, 1988).

Institutional communication, fairness in administration's application of policies and rules, and the ability for students to participate in the decision making process have been found to have a positive impact on student departure (Bean, 1983; Berger & Braxton, 1998; Braxton & Brier, 1989). Tinto previously pointed out that potential factors that can influence student retention included institutional size, admissions selectivity, institutional resources and goals, faculty to student ratios, and university bureaucratic structures (Tinto, 1986). All of these institutional factors are important components of how an organization functions. Keeping students well informed of rules and regulations was found to positively affect social integration and student persistence (Berger & Braxton, 1998; Braxton & Brier, 1989). Additionally, the level of institutional commitment to the welfare of its students has been found to influence student departure for residential and commuter colleges and universities (Braxton, Hirschy, & McClendon, 2004).

How students are taught has also been found to be an important correlate to the student departure process. Using survey research and path analysis, faculty teaching methods were found to play a role in the student departure process (Braxton, Milem, & Sullivan, 2000). Specifically, class discussions and higher order thinking activities were found to have a significant influence on social integration, a component of previous

retention models. Class discussions were found to positively influence institutional commitment and student persistence, while knowledge-level exam questions were found to negatively impact student persistence (Braxton, Milem, & Sullivan, 2000). The importance placed on teaching versus research varies by institution type, so the findings of this study are important to examine through an institutional context.

<center>Theoretical Framework</center>

The research of Spady, Tinto, and Braxton will be used to provide a theoretical basis from which to frame the issue of persistence to graduation for African American college students. Spady's model is noted in the theoretical research, as it points to family as the basis for success in college (Spady, 1970). As noted later in Chapter II, family is an important determinant in the academic success of African American students. Additionally, Tinto's research regarding social and academic integration are important variables in examining African American student persistence, as campus climate and academic environment have been found to be important factors to African American student success. Lastly, the work of Braxton regarding institutional processes and procedures provides important background research to examine potential differences in institutional persistence rates, and if the differences can be related back to institutional functions.

<center>Conceptual Framework</center>

Using the theoretical framework, a broader conceptual framework can be established with which to view persistence to graduation for African American students. The conceptual framework is modeled after Astin's I-E-O model, whereas input and environment interact to influence output (Astin, 1991). This model, illustrated below in

<center>23</center>

Figure 2, conceptualizes how individual factors of African American college students

(input) interact with social (input) and organizational (environment) factors to lead to

persistence to graduation (output). It can be noted that the individual factors identified

are also factors that have been found important to the study of college student

engagement. The interaction of the three types of factors all contribute to student

persistence; one factor alone does not lead to persistence to graduation. Specific

variables in the conceptual framework model below are drawn from the literature

described in more detail in this chapter. For purposes of this study, the specific variables

from the conceptual model that will be examined include sex, parental education,

academic ability (via grade point average), campus involvement/engagement (via

National Survey of Student Engagement benchmarks of effective educational practice),

and institution type

Individual factors:
Academic ability,
motivation, goal
commitment, sex

**Socioeconomic
factors:**
Social capital, SES,
parental education,
family background

Organizational factors:
Institution type, campus
environment (curricular, co-
curricular), campus
involvement/engagement,
institutional processes

**Persistence to
Graduation**
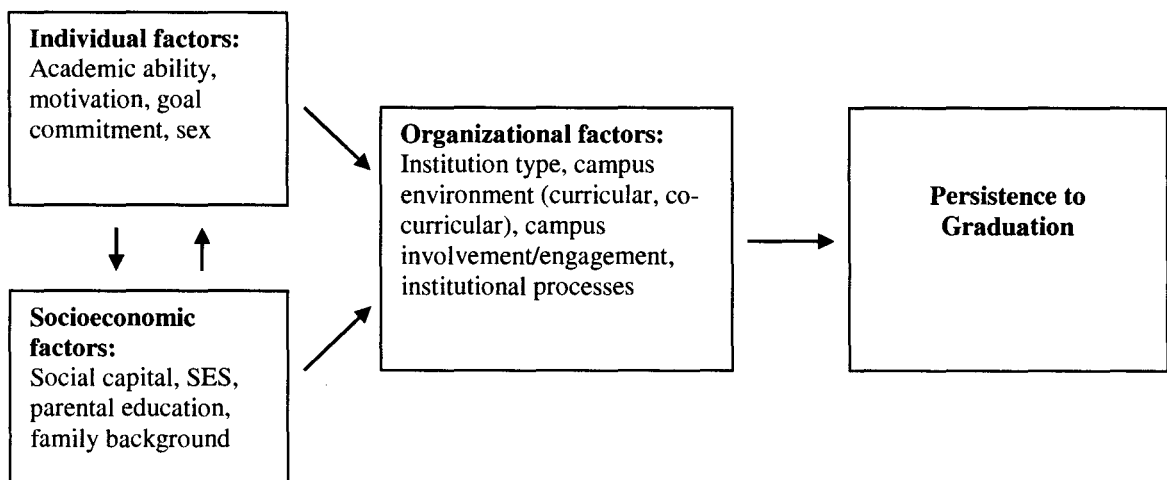
Figure 2: Proposed conceptual framework of factors leading to persistence to graduation for African
American college students

Factors that Impact Persistence

As determined by the variety of theoretical models of persistence, there are a number of factors that contribute to the persistence of a college student. This section will examine five key factors that have emerged from the literature surrounding student persistence. These factors include social, economic, academic, campus involvement/engagement, and attitude/motivation.

Social Factors

O'Leary, Boatwright, and Sauer examined the effect of family as related to college students. Findings indicated African American students were more likely to rely on family for emotional support than White students (1996). One explanation for this finding can be linked to the Pierre Bourdieu's concept of social capital. Bourdieu (1986) defined social capital as the sum of actual and potential resources that are linked to membership in a group which provides members with credentials in which to navigate society. Coleman (1988) furthered Bourdieu's definition of social capital as a conceptual tool existing in the relationships among persons; social capital is evidenced in the form of obligations, expectations, and trustworthiness of structures, as well as in information channels, and norms of effective sanctions. Additionally, Coleman points out, "social capital within the family that gives the child access to the adult's human capital depends both on the physical presence of adults in the family and on the attention given by the adults to the child" (1988, p. 111). The effect of social capital in the family leads to the formation of human capital, by which the student makes the decision to not drop out of school and persist to graduation. Students from families with low-income or whose parents did not hold bachelor's degrees were more likely to drop out of college when

compared to students from higher family incomes or with parents who held a bachelor's

degree or higher (National Center for Education Statistics, 2003). Families are able to

provide the social context for the way a student views his/her education, as well as

provide influence into the decisions students make regarding their education and

educational aspirations (Teachman, 1998).

Social capital can be linked to family background and composition. Parental

education is an important factor in determining a student's level of social capital. The

average educational level of Black parents is still much lower than parents of all other

races combined (Glick, 1988). In 1985, there were more one-parent families (30%) than

married-couple families (27%) that composed the number of Black families with children

under the age of 18 in the home, when compared to 11% and 39% respectively for

families of all races (Glick, 1988). Black students with only one parent contributing

social capital enter the higher education landscape with lower levels of social capital.

Willie and Reddick (2010) noted that in married Black families, it is more common for

the Black female to have more education than the Black male (p.98). Overall, parents in

working-class Black families have been found rarely to have more than a high school

education (p. 28). Recognizing this disparity, McAdoo indicated the need for black

families to bestow upon their children the motivation and the skills necessary to succeed

in school (1988).

First generation college students arrive on campus with different backgrounds and

family experiences than other students. Kasworm found first generation college students

lack the social capital of having parental safety nets to fall back on financially while at

college (2003). Using this finding, Eitel and Martin analyzed financial literacy survey

results of female first generation college students at one institution (2009). Findings

indicated that the women were not financially literate and did not actively seek out

information regarding financial education. The researchers determined that with

financial literacy programs for this student group, persistence and graduation rates of

female first generation college students could be increased (Eitel & Martin, 2009).

Using British high school students, Sullivan found a significant effect on

performance on standardized exams due to high levels of parental cultural capital, as well

as a large, direct effect of social class on attainment when cultural capital is controlled for

(Sullivan, 2001). Sullivan defined cultural capital as familiarity with the dominant

culture in a society. In a report released by the Mellon Foundation, researchers point out

that that a powerful underlying relationship exists between SES and the elements of

college preparedness. Additionally, low-income students were seen as disadvantaged due

to the result of a lack of preparation for going to college, thus making them less

competitive applicants (Boulard, 2004).

Herndon and Hirt point out there are a number of studies regarding the influence

families have on elementary and secondary education, but a gap in the literature exists

regarding support at the higher education level (2004). Using data from the 1992 and

1994 follow-ups to the National Educational Longitudinal Study, Perna and Titus defined

the relationship between college enrollment and parental involvement as social capital

(2005). Findings indicated that when examining parental involvement that began in the

12th grade, smaller percentages of African American and Hispanic students enrolled in a

four year college than White or Asian students These findings suggest that African

American and Hispanic students may already enter higher education at a disadvantage

due to lower levels of social capital that may be needed to navigate the system of higher education.

Institution type has been found to have different effects on the persistence of students in higher education. Wells examined the effect that social capital levels had on the persistence from the first to second year for students at community colleges and four-year institutions (2008). Using data from the National Educational Longitudinal Study 1994, findings indicated that regardless of institution, students with higher levels of social and cultural capital were more likely to persist to the second year of college. Additionally, by examining the data further, institution type was not found to be a main factor in lower persistence rates for students. However, there is a larger gap in the persistence of students with lower levels of social and cultural capital at community colleges than at four-year institutions (Wells, 2008). These findings indicate the need for additional research as to the effect of institution type on persistence.

Social capital has also been found to exist outside of the family environment. In a qualitative study of 11 African American men attending one doctoral-granting HBCU, Palmer and Gasman examined the role of social capital in the success of African American men at the institution (2008). Results from participant interviews pointed to a rich supply of social capital that existed in the relationships between faculty and staff at the HBCU where the men attended. University personnel were willing to establish supportive relationships with the men in the sample, in an attempt to encourage the students' success/enrollment to graduation (Palmer & Gasman, 2008).

Using data from the 1999 National Longitudinal Survey of Freshmen, Mary Fischer examined factors affecting student involvement on campus and how involvement

affected their continued enrollment (2007). For all races studied, having informal ties (friends) on campus resulted in a greater likelihood of not leaving college, or not persisting (Fischer, 2007). This finding suggests that creating friendships and social networks on campus is important to persistence.

Braxton et al. point to the idea of communal potential in influencing student departure decisions (2004). Communal potential is defined as the extent to which students perceive a sub-group of similar people exist on campus, which share their beliefs, values, and goals. Communal potential then, affects social integration of students.

Friends from home can also play an important role for students and their connection to the institution. In a qualitative study of 99 African American students at one PWI, interviews were conducted to analyze the impact of being connected to friends at home while away at school (Guiffrida, 2004). Students who left the institution and low achieving students indicated that the fear of losing their friends at home influenced their departure decision. Their tight connection to their friends was associated with poor academic performance. High achieving students saw their friends from home as persons who both supported and hindered their transition to college (Guiffrida, 2004).

Economic Factors

The ability to afford a college education is an important factor in determining a student's likelihood of persisting to graduation. According to the College Board, tuition at public, four year institutions has risen 47% in the past decade, while tuition at private, four-year institutions has risen 42% (Waldron, 2007). Income may be the most important factor in determining both college access and college completion (Boulard, 2004). It can

be argued that the ability to afford the cost associated with higher education is the most important determinant of graduating from college. Student SES and income were found to be significant predictors of college persistence by Pascarella and Terenzini after controlling for race, gender, and ethnicity (1993, 2005). Levine and Nidiffer (1996) found that students whose families were from the lowest SES levels were eight times less likely to graduate from college than other students. A greater number of Latino families are more likely to live below the poverty level than non-Latino families; this socioeconomic disparity has been found to have a negative effect on educational degree attainment for Latino students (Rodriguez, Guido-DiBrito, Torres, & Talbot, 2000).

In a longitudinal study of 21,243 college students, Wessel, Bell, McPherson, Costello, and Jones examined persistence to graduation by financial aid category and through the lens of academic ability (2006). The study sought to determine if students disqualified academically (i.e. be academically dismissed) at different rates based on their financial aid category. At the end of a six year period, 55% of freshmen had graduated, with Pell Grant recipients graduating at lower rates than non-Pell Grant recipients. Overall, the researchers determined that students who had the greatest financial need were more likely to disqualify academically and were less likely to persist to graduation. Additionally, when the financial aid category was compared with academic ability indicators (SAT score and high school rank), academic ability was a better indicator of academic disqualification and persistence to graduation than financial aid category (Wessel, et al., 2006).

Using Tinto's theoretical model of persistence, Wetzel, O'Toole, and Peterson sought to examine factors affecting student retention, tracking freshmen and sophomore

students at one urban institution over four years. Academic progress, as defined by the ratio of earned credit hours by attempted credit hours, grade point average changes, and avoidance of at-risk student status were found to most contribute to retention. Financial status was found to be important, but not as important as academic progress in predicting student retention (1999). Additionally, for Black students, a weak positive relationship was found between student loans and retention. Greater access to student loans was found to enable Black students to stay in school longer than their White counterparts (Wetzel, O'Toole, & Peterson, 1999).

Paulsen and St. John sought to examine how the effects of social class, financial status, and persistence intertwined for college students (2000). The researchers examined data from the 1987 National Postsecondary Study Aid Survey using logistic regression. Students were classified by financial aid category as low-income (less than or equal to $11,000), lower-middle income ($11,000-$30,000), upper-middle-income ($30,000-$60,000), and upper-income (greater than or equal to $60,000). Findings of the study indicated that lower-income students were less likely to attend full-time, while women who lived in poverty were less likely than men to maintain continuous enrollment. Additionally, lower-income students who did not hold a GED or high school degree were more likely to persist than lower-income students with a high school degree (Paulsen & St. John, 2002). When examining the data through the context of race, African American low-income and lower-middle income students were more likely to persist than their White counterparts, while lower-income Asian American students were less likely than any other racial group to persist (Paulsen & St. John, 2002).

The type of financial aid awarded to students has also been examined in relation to persistence to graduation. Perna found grants were more effective than loans in promoting persistence and that student financial aid in the form of grants and work study had positive effects on persistence, while loans were less predictive unless mixed with other types of aid (1988). In a study at one institution, financial aid packaging was examined in terms of type of aid awarded and need in relation to persistence (Bresciani & Carson, 2002). Findings indicated that receiving gift aid, or aid that did not include student loans, was significant in predicting student retention, while load aid was not significant in predicting retention. Students with less unmet need were more likely to persist. Additionally, having unmet need was more likely to predict the student's likelihood of persisting than percentage of gift aid awarded to the student (Bresciani & Carson, 2002).

For students who come from low economic mobility, working while in college is an important factor in being able to support one's self and one's family while in college, as well as to be able to cover the cost of any unmet financial aid. The U.S. Department of Education found that only 49% of full-time, dependent undergraduate students in 1999-2000 had parents that paid for some or all of the costs of their college education (as cited in Bozick, 2007, p. 262). Bozick found students who worked more than 20 hours a week and lived at home to help defray the costs of college tuition were more likely to leave college than students who worked less than 20 hours per week and lived on campus (2007). These findings provide evidence that financial status is an important factor to the college persistence puzzle.

Marvin Titus examined low SES students through the financial context of the four-year institutions that the students attended (2006). Titus wanted to determine how the institution's financial context impacted college completion according to social class. The 1996 National Postsecondary Student Aid Study was used as the data collection instrument to determine the likelihood of completing a bachelor's degree within six years of enrolling at the same institution. Degree completion was found to be positively influenced by academic performance, certainty of declaring a major, campus residence and student involvement and negatively influenced by minority status and unmet financial need by the institution (Titus, 2006). Additionally, degree completion rates increased as SES increased and were found to be positively related to the total education and general expenditures per full-time-equivalent students. Completion was also positively influenced by tuition and fees as a percentage of total revenue, but unaffected by the percent of revenue derived from state appropriations, grants and contracts, and endowment income. Overall, low SES students were found to enroll disproportionally at schools that were more reliant on tuition and fees for revenue and had lower levels of financial resources (Titus, 2006).

Campus Involvement/Engagement Factors

Researchers in student affairs and higher education have long pointed out that the more involved a student is in college both inside and outside of the classroom, the more likely he or she is to graduate (Astin, 1993; Kuh, 1993; Tinto, 1987). Astin's input-process-output model (1993) centers on the idea that students who become more involved in the different aspects of college life, including co-curricular activities, tend to have better outcomes in both the short and long term. Graduation from an institution can be

33

considered a potential outcome in Astin's model. Various studies have been conducted

to test the validity of Astin's model of student involvement and how it interacts with

college persistence.

Building upon previous studies, Fidler and Moore engaged in a longitudinal study

of eight freshman cohorts at the University of South Carolina to determine the effect of

living on campus on retention (Fidler & Moore, 1996). The study revealed students who

lived on campus their freshman year and participated in the freshman orientation seminar

at the university were retained at a higher rate going into the sophomore year. Freshman

students who did not live on campus and did not participate in the freshman orientation

seminar had the highest dropout rates of all freshmen students in the study (Fidler &

Moore, 1996).

The correlation between retention and campus housing was further expanded

upon by Lowther and Langley in 2005. Specifically, the researchers wanted to examine

how on campus housing affects first year retention. Within their study, they added the

variable of Greek affiliation and its impact on first year retention to determine if

encouraging group membership is as important as mandating first year students to live on

campus (Lowther & Langley, 2005). Using a sample of 15,266 students, the researchers

examined all entering freshmen at Auburn University from 2000 through 2003. Results

indicated that at this particular institution, female students who lived in campus housing

were more likely to persist to the sophomore year than those who did not reside in

campus housing. The results for male students were not conclusive. When controlling

for gender, there was found to be a strong relationship between campus housing and first

year retention when also controlling for academic entering characteristics. Greek

affiliation was shown for males to be a bigger predictor of retention than on campus housing (Lowther & Langley, 2005).

Social alienation among college students was examined by Lane and Daugherty (1999). A sample of 87 students were administered a revised version of the Social Alienation from Classmates Scales. Social alienation in the study was defined as the "persistent perception of being isolated or removed from others (Lane & Daugherty, 1999, p. 7)." Factorial ANOVA found that women reported lower levels of social alienation when compared to men. Additionally, members of Greek organizations reported significantly lower social alienation scores than non-affiliated students (Lane & Daugherty, 1999). These findings are significant in that greater levels of social integration can be inferred to lead to greater probability of persisting.

Findings indicate students who have more formal social ties via extracurricular activities have significantly higher levels of satisfaction with their institution (Fischer, 2007). This finding can be inferred to indicate that the more satisfied a student is with his/her institution, the greater the likelihood of the student persisting. Additionally, Fischer found that for minority students, greater involvement in extracurricular activities reduced the likelihood of leaving college by 83% (Fischer, 2007). Pike examined extracurricular involvement via Greek fraternity and sorority membership and its impact on student engagement and educational outcomes (2003). Using 15 institutions and over 6,700 students who responded to the 2000 NSSE, Pike found a weak positive relationship between Greek membership and student engagement and gains in learning. Additionally, this effect was found to be stronger for seniors than for the freshman participants (Pike,

2003). This finding lends credence to the idea that the more involved a student is at the institution, the greater gains the student will have.

The same findings were discovered in relation members in Black Greek letter organizations. Kimbrough studied the impact of membership on involvement in campus-related activities and leadership development, using non-members as a control group (1998). Students at 12 institutions were sampled using the Student Involvement and Leadership Scale, Competing Values Managerial Skills Instrument, and Leadership Assessment Scale and analyzed using MANOVA. Black Greeks were found to be more involved in campus activities and organizations that non-members and held more leadership positions on campuses. Data suggested that Black Greek membership increased overall involvement, which has been found to influence persistence (Kimbrough, 1998).

DeSousa and Kuh compared the educational gains of Black students' involvement in college activities at one HBCU and one PWI, using the College Student Experiences Questionnaire as their data collection instrument (1996). After condensing their data by utilizing a factor analysis and then performing ANOVA, findings indicated that for students who attended HBCUs, educational development was more influenced by involvement in academic activities than social and interpersonal networking. Participation in co-curricular activities can serve to enhance a student's social integration with the institution. Kuh and Love found that the retention of students whose culture of origin was different than that of the institution would be affected positively by finding a cultural affinity group with which to participate in (2000). This finding can be correlated to the cultural affinity group serving as a type of social integration for these students.

Additionally, participation in intramural sports during the first year of college was found to foster student interaction, as well as provide opportunities for students to find study partners (Belch, Gebel, & Maas, 2001).

The effect of student engagement on first year college grades and persistence using student level data from the NSSE was examined by Kuh, Cruce, Shoup, Kinzie, and Gonyea (2008). The researchers studied whether engagement in the first year of college had a significant effect on first year grade point average and persistence to the second year, without taking pre-college experiences into consideration. The effects of engagement were also examined to see if they differed by race and ethnicity and prior academic achievement. Student engagement was defined as "time spent studying, time spent in co-curricular activities, and a global measure of engagement in effective education practices made up of responses to 19 other NSSE items" (Kuh, et al., 2008). Although some researchers have questioned the validity of the NSSE to assess purposeful engagement (as discussed further in Chapter V), student engagement in educationally purposeful activities was found to be positively related to academic outcomes and persistence to the second year. Additionally, exposure to these practices was found to benefit all students academically and aid in persisting to the second year (Kuh, et al., 2008).

Academic Factors

Academic preparedness has been studied to determine if there are academic factors that can predict college student persistence. Completion of precollege coursework has been found to be a significant predictor of college success. Using the National Educational Longitudinal Survey 1988:2000 national dataset, Adelman longitudinally

tracked a national sample of eighth graders from 1988 through 2000 to examine their secondary and postsecondary experiences (2006). Intensity of a student's high school curriculum was found to be most important regarding a student's precollege history in determining completion of a bachelor's degree. Additionally, completing higher level math courses in high school was found to have the greatest effect on college readiness and persistence through the first year (Adelman, 2006).

High school enrollment has also been examined in relation to college persistence. Johnson studied students from in-state high schools at one doctoral research university to determine how high school aggregate and individual characteristics affected college enrollment (Johnson, 2008). Students from high schools with the highest percentage of SAT test takers were most likely to graduate in five years from the institution. Negative findings related to first year persistence were found for students who matriculated from high schools under 60 miles away, but the findings did not hold for the five year graduation rate. Students from high schools with high rates of free lunch were less likely to persist at the institution (Johnson, 2008). Using data collected from the CIRP instrument, Glynn, Sauer, and Miller sought to identify predictors of student retention to graduation using pre-matriculation data. The researchers combined CIRP data with institutional data from one small private institution. Findings indicated that high school grade point average, good study habits in high school, gender, moral and religious values, and parents' educational level were most likely to predict persistence to graduation for the students in this sample (Glynn, Sauer, & Miller, 2003).

Jane Thompson also sought to examine the potential benefits for students that lived on campus. In a study released in 1993, Thompson compared off campus and on

campus residence and examined the influence both had upon retention, academic achievement, and academic progress (Thompson, 1993). Using a sample of 5,414 students, findings revealed that both retention and academic progress were much higher for students who lived on campus. This finding was consistent regardless of age, gender, or admission type, thus strengthening its statistical generalizability (Thompson, 1993). Thompson also found that students who were required to take remedial courses in the first year and lived on campus were also more likely to persist (Thompson, 1993).

Peter Kreysa examined persistence in conjunction with remedial coursework. Remedial education at the institution studied consisted of non-credit courses in reading, writing, and mathematics to provide students with the necessary skills to perform at the college level (2006). The study followed a cohort of first time freshmen that enrolled in remedial courses during their first semester and tracked their program through eight years of enrollment, as well as a control group of non-remedial cohort students. Using logistic regression, findings indicated a strong positive relationship between enrollment in remedial courses and graduation rates, which the researcher theorized as remediation contributing to persistence (Kreysa, 2006). Additionally, African American students were found to have a significantly strong relationship with enrollment in remedial courses and graduation, while the relationship was significantly negative for White students. Overall findings indicated that there were no significant differences between the graduation and retention rates of remedial and non-remedial students, suggesting that remedial coursework was successful in catching students up to their non-remedial counterparts (Kreysa, 2006).

Through examining both enrollment records and entering characteristics of the two samples, Kreysa found that increases in SAT verbal scores were found to increase the likelihood of graduation by 14%, while a one point increase in grade point average increased the likelihood of graduation by 29% (2006).

Using eight years of longitudinal data from students at the University of Iowa, DesJardins, Kim, and Rzonca completed a nested analysis to determine variables that could predict student success at the University of Iowa (2003). Three models were developed to predict persistence in the first year, graduation versus dropout among first year persisters, and graduation in four years or less versus graduation in five or more years. Findings indicated that students who took fewer credit hours per semester and had lower grade point averages were less likely to graduate. Students earning credit by examination in high school were more likely to graduate in four years. Students who were required to take remedial coursework were less likely to earn a degree and not likely to graduate in four years. Students in the humanities were more likely to drop out in the first year, while engineering and business students were less likely to drop out. Health, business, and engineering students were more likely to earn a degree after two years than social sciences majors, while business graduates were found to be most likely to graduate in four years. Gender, goal commitment, and expected income upon graduation were all not significant in this study. Overall findings indicated that graduation was most affected by pre-college academic achievement variables, college major and academic achievement at the university (DesJardins, Kim, & Rzonca, 2003).

Academic integration has also been found to be an important academic factor that is related to student persistence. Central to Tinto's model of student departure is "the

concept of integration and the patterns of interaction between the student and other members of the institution" (Tinto, 2006, p. 3).

Woosley and Miller (2009) examined whether academic integration, social integration, and institutional commitment in the third week of the first semester could predict retention to the end of the first year through the administration of a survey. Students who indicated higher academic integration and institutional commitment scores were found to have higher grade point averages and were more likely to persist to the end of the first year.

Similarly, Severiens and Wolff (2008) examined the impact of academic integration for minority students. The study defined academic integration as contacts with the institution, as well as contacts between students and faculty both in and out of the classroom. Students at four universities in the Netherlands completed questionnaires regarding their integration at the end of their first year. Minority students were defined as those students not from the Netherlands. Findings indicated that academic integration was positively related to grades, credits and quality of learning for majority students, but findings were inconclusive for minority students.

Kim and Sax (2009) examined the effects of differences in student-faculty interaction in and out of the classroom by gender, race, social class, and first generation status for 58,281 students who participated in the University of California Undergraduate Experience Survey. Findings indicated that out of class research-related faculty interaction predicted higher grade point averages for all groups and course-related faculty interactions led to higher grade point averages and degree aspirations for all students but African Americans and Latinos.

41

Attitude/Motivation Factors

Researchers have also found that attitude and motivation to succeed in college, as well as educational aspiration, are important factors in predicting student persistence. For persistence during the freshman year, it has been argued that freshmen lack the motivation to do well in school because they lack the understanding of the importance of education (Lau, 2003). These factors continue to be important throughout later years of enrollment as well.

Astin also cites motivation as a predictor of college retention. In a 1975 study, Astin found a strong positive relationship between educational aspiration and persistence. Additionally, students who reported goals of earning a terminal degree were found to be most likely to persist in college (Astin, 1975). Allen examined the relationships between background factors, motivation, academic performance, and persistence and found a significant motivational effect on persistence for minority students, but not non-minority students (1999). Robbins, Le, Davis, Langley, and Carlstrom (2004) performed a meta-analysis of 109 articles examining retention to determine if psychosocial factors and study skills were able to predict student success. Findings indicated a moderately significant relationship between retention and academic goals, academic self-efficacy, and academic study skills.

Motivation is included by William Sedlacek (1996, 2004) as a type of non-cognitive variable that can be used to make informed admissions decisions and predict retention for students of color, but may not be able to be measured in a systematic way such as via a standardized test. Sedlacek defines non-cognitive variables as "relating to adjustment, motivation, and perceptions, rather than the traditional verbal and

quantitative (often called cognitive) areas typically measured by standardized tests" (2004, p. 36). Non-cognitive variables identified by Sedlacek include positive self-concept, realistic self-appraisal, successfully handling the system (racism), preference for long term goals, availability of strong support person, leadership experience, community involvement, and knowledge acquired in a field. Sedlacek asserts that students of color have a more difficult transition to campus than dominant groups, so by using their noncognitive variables they are able to navigate campus environments (2004). In turn, campuses would be well-advised to devise student services in such a way to maximize these variables to assist students of color.

Allen, Robbins, Casillas, and Oh examined the effects of academic performance, motivation, and social connectedness on college retention in the third year (2008). Students were administered the Student Readiness Inventory during the fall 2003 of their freshman year and were tracked through to the fall of 2005. From the sample of 6,872 students, social connectedness and college commitment were found to be directly related to student persistence. Academic self-discipline was determined to have a positive indirect effect on third-year enrollment status (Allen, et al., 2008). These findings give credence to Linda Lau's argument that students must be motivated to actively participate in their learning in order to be retained (2003).

Educational aspiration is an important factor related to persistence to graduation. Using a sample of community college students from five institutions, Pascarella, Wolniak, and Pierson measured educational aspirations at the end of the first year of community college study to determine how their college experience during the first year affected their future enrollment plans (2003). Findings indicated that students with

higher educational aspirations were found to be more likely to achieve a bachelor's degree than those with lower aspirations who started their coursework at the community college level (Pascarella, Wolniak, & Pierson, 2003).

The effect of achievement motivation can also be related to family background and social capital. Kiah designed a study to examine the relationship between achievement motivation, family cohesion, and aspirations regarding education, family, and job (1992). The Work and Family Orientation Questionnaire was completed by 128 Black students, as well as the Family Environment Scale. Most students indicated a desire to work hard, be moderately or highly competitive, and reported having moderately cohesive families. Approximately 45% of respondents indicate the desire to pursue the bachelor's degree, 33% desiring earning a master's degree, and 12.5% desired earning a terminal degree. Competiveness explained the variance in Black males' willingness to work hard, but no variables were found to explain the variance in aspiration. Both males and females were found to be highly fearful of success (Kiah, 1992). While the findings of this study were useful in determining Black student achievement, the study was not longitudinal, so was not able to provide persistence results based on the student's responses regarding degree completion.

McCarron and Inkelas examined the role that parental involvement played on the degree aspirations of first-generation college students (2006). The sample was obtained from the NELS: 88/2000 national data set. Student educational attainment was examined eight years after high school graduation in the year 2000, the year the students indicated they would expect to have obtained a bachelor's degree. 30.6% of White students were found to have actually finished a bachelor's degree, while 20.8% of Black

students finished a bachelor's degree. Parental involvement was found to have a positive relationship between educational aspirations, but a relationship between educational attainment was not measured (McCarron & Inkelas, 2006).

Goal-setting is an integral component of Tinto's model of student departure. Career goals and retention among college freshmen was examined by Hull-Banks, Kurpius, Befort, Sollenberger, Nicpon, and Huser (2005). The researchers hypothesized that freshmen with job, value, school, and unknown career goals would differ in persistence decision-making and their continued enrollment. Students at one institution completed an instrument created by the researchers. Students with unknown career goals were found to make fewer persistence decisions than those with job-related career goals (Hull-Banks, et al., 2005).

Hull-Banks, et. al. (2005) noted that career goals have been linked to self-efficacy. Self-efficacy, in turn, has been found to be a predictor of student retention. Self-efficacy is defined as a person's confidence in their ability to complete a task. DeWitz, Woolsey, and Walsh examined self-efficacy in relation to purpose in life in a sample of college students at one Midwestern university (2009). Findings revealed that self-efficacy was significantly and positively related to purpose in life, regardless of gender. From this finding, it can be determined that students who have positive self-efficacy may also have a positive attitude towards completing college.

African American College Students

African American students comprise a large component of the minority college student population in the United States. According to the 2000 United States census, Blacks represented 12.3% of the population in the United States, while the Integrated

45

Postsecondary Data System reported that Blacks represented only 11.3% of all college students in the country in 2000 (Knapp, Kelly-Reid, & Ginder, 2009; U.S. Census Bureau, 2001). Black enrollments are continuing to grow, with Blacks representing 13.1% of the degree-granting institution enrollments in 2007. However, White students compromised 64.4% of the degree-granting institution enrollments (National Center for Education Statistics, 2009a). While comparable percentages of White and Black students expect to finish college, smaller percentages of African Americans than White students actually enroll in college (Perna & Titus, 2005; Fleming, 1984). National persistence to graduation rates of first-time, full-time students beginning in 2001 were found to be 59.4% for White students and 40.5% for Black students, indicating a gap in degree attainment by race (Knapp, Kelly-Reid, & Ginder, 2009).

The need to examine the developmental identity process is important in understanding how African American students adjust to higher education environments (Fleming, 1984). Spady noted that fit with one's environment is an important factor in determining whether a student will persist at an institution (Spady, 1970). While developmental identity models exist for broad groups of students, such as Chickering's Theory of Identity Development, there are also specific student development theories that are applicable to African American students, such as Cross's Model of Psychological Nigrescence and Phinney's Model of Ethnic Identity Development (Evans, Forney, Guido, Patton, & Renn, 2010).

Cross's Model of Psychological Nigrescence (1995) examines the process by which African American students can begin their identity process as non-Afrocentrists and end embracing multiculturalism. Students begin in the preencounter stage, where

race is viewed as unimportant and move to the encounter stage and experience a situation that affects their racial identity in a powerful way. After the encounter, the student moves to immersion-emersion, where he/she starts to shed their old racial identity and become immersed in learning about race. The fourth step is internalization, by which the student begins resolving the new and old identity through a new Black worldview. Finally, the student experiences internalization-commitment, by which the new Black identity has been integrated completely into their life (Cross, 1995). Harper and Quaye conducted qualitative interviews of African American campus leaders and found a connection between their Black identity status and their leadership within student organizations (2007). The men with more advanced racial identities tended to use their leadership positions to advocate for other African American students on campus (2007).

Phinney's model examines the intersection of ethnic identity in creating a positive self-concept for minority adolescents (Phinney, 1990). While it is not specifically designed for African Americans, it does apply to this population. This model consists of three stages, diffusion-foreclosure, moratorium, and identity achievement. Diffusion-foreclosure is the stage in which the individual has not yet examined their feelings regarding their ethnicity. Individuals accept negative attitudes towards the majority group from others, but overall are disinterested in ethnicity. Moratorium is marked by the individual becoming increasingly aware of his/her ethnicity and exploring their ethnic background as a result of an experience causing knowledge exploration. Identity achievement occurs when a healthy bicultural identity is achieved, thus accepting membership in the minority culture while being open to other cultures as well (1990). Using Phinney's model, Jourdan (2006) found that the family environment plays a

significant role in being able to achieve a secure ethnic identity. Those multiethnic students whose families were supportive of their multiple backgrounds felt more confident regarding their ethnic identity (Jourdan, 2006).

Gender differences exist within the population of African American students in higher education. The National Center for Education Statistics (2007) found that while there are more females than males at the postsecondary level, the gender gap between African American males and females is most pronounced. In 2004, the gender gap had widened to 28.6 percent. Black females earn twice as many associate's, bachelor's, and master's degrees than Black males (Palmer, Davis, & Hilton, 2009). Additionally, Black males are more affected by interracial educational environments then Black females (Fleming, 1984). Fleming points out that due to their insufficient fathering, Black males have grown up in a more competitive environment, which turns to hostility on interracial campuses.

The disproportionate numbers of Black males matriculating and graduating from institutions of higher education is an issue of importance. Cuyjet (2006) examined the impact this disparity has on college campuses, noting that lower numbers of Black men on campus have adverse effects on the campus social climate, leading to the absence of a critical mass of Black men on campus to have cultural interaction with various groups. Additionally, Cuyjet also examines the differences in Black men and Black women on campus, noting that Black men have lower grade point averages, lower self-esteem, are less involved outside of the classroom, are committed to spirituality and religion, and are reluctant to ask for help from faculty members. Cuyjet suggests that the needs of Black

men on campus can be more adequately met by disaggregating data on African American students by gender (2006).

Cuyjet examined a number of strategies developed to assist in the academic success of African American men in college. To foster a more welcoming academic environment, the use of cohorts is suggested, as well as integrating family into the students' academic experiences. Out-of class involvement can be increased by creating opportunities for African American men to meet, such as establishing mentoring programs beginning with freshman orientation. Programs such as the Student African American Brotherhood (SAAB) and the Collegiate 100 have been designed and implemented on campuses across the country to help integrate African American men to their campus environment and community, thus increasing their likelihood of graduation from the institution (Cuyjet, 2006).

Similarly, African American females also enter the higher education landscape with specific needs. Howard-Hamilton notes that African American females experience the feeling of an outsider within in higher education (2004). However, more females than males comprise the African American student population. Additionally, they are admitted, retained, and graduate at higher rates than their male counterparts, but not higher than White female students (Howard-Hamilton, 2004). When examining their retention, Rosales and Person found that structural, environmental, and socio-cultural factors are predictors that lead to the loss of African American females in higher education (2004). Specifically, these factors include leadership roles within their families, extended families, and communities, as well as serving as role models to other black females. This student group also reports a general lack of sensitivity and

understanding regarding their culture, as well as alienation, struggling to succeed, and perceived negative faculty attitudes (Rosales & Person, 2004).

Strategies to facilitate positive experiences for African American women on campuses do exist. Faculty and staff on campus can make an effort to include cultural experiences of African American women in curriculum and programming. Additionally, safe spaces on campuses can be created to foster connections between other African American women (Howard-Hamilton, 2004).

While at colleges and universities, male and female African American students present with different needs to help them succeed in college. In a qualitative study of Black males who persisted to graduation at one HBCU, the men indicated factors that presented the most challenge to their success. These factors included lack of financial support, pride versus need in terms of deciding not to seek support from campus support services, and a disconnect between their homes and communities, as well as between their peers and academic success (Palmer, Davis, & Hilton, 2009).

While on campus, African American students find that they need to establish networks of support in order to succeed. In a national sample of college students, African American students were found to have lower first year grade point averages, but greater likelihoods of staying at their original institution despite academic troubles (Allen, et al., 2008). Both rural and urban students in a study conducted by Herndon and Hirt reported that developing a sense of community on campus was important to their existence on campus (2004). Pascarella and Terenzini found that while African American students tend to have common experiences while in college, those experiences are different than their nonminority counterparts (1991).

Mardy Eimers compared the experiences of African American and White students and satisfaction of their experiences at the University of Missouri. Findings indicated there were statistically significant differences in minority and non-minority responses to the campus climate and the overall assessment of their college experience. The minority students in this study also reported statistically significant higher gains in intellectual achievement (Eimers, 2001). Gloria, Robinson-Kurpius, Hamilton, and Willson determined that campus counseling services should provide social support groups for African American students to discuss issues of racism, alienation, and discrimination (1999).

The social environment for African American college students has been found to be somewhat different than for their White counterparts. Black students are noted as living in a bifurcated world in higher education, an issue that "confronts the institution (Price, Hyle, & Jordan, 2009, p. 4)." Black students encounter a "crisis in social adjustment" when arriving at PWIs (Fleming, 1984, p. 163). The difference in the campus environment includes low Black enrollment, small numbers of Black faculty and staff, and instances of racial discrimination (Fleming, 1984). Black students often have a difficult time adjusting on predominately White campuses and have to reconcile their Black identity within the environmental context (Smith, 1981). Black students report that institutional abandonment, isolation, and bias in the classroom are factors that lead to a hostile learning environment (Fleming, 1984).

In a qualitative study of racial interactions between White and Black students based at a community college, it was found that the absence of interracial ties on campus was associated with perceptions of racial discomfort at the institution (Price, Hyle, &

51

Jordan, 2009). The need to find groups of like-minded individuals can lead to isolation among African American students on predominately White campuses (Harper & Hurtado, 2007; Roebuck & Murty, 1993). In a study of White and Black students at two institutions, Phillips found that Black students reported feeling marginalized on campuses, while White students did not recognize the challenges faced by their Black counterparts. Additionally, Phillips posited that in reconciling their environment on campus, Black students also faced racial, socioeconomic, and academic barriers on campus (Phillips, 2005).

Incidents of racial discrimination on campuses towards African American students lead to the creation of hostile learning environments. On some campuses, overt racism on campus occurs for Black students in the form of spoken insults, written or pictorial insults, organized protests and reactions, and violent activity (Roebuck & Murty, 1993). African American students reported having the highest perceptions of a negative racial campus climate when compared to Asian, White, and Hispanic respondents (Fischer, 2007). However, the negative perception of the environment had a positive impact on grades for African American students, but also increased the likelihood of leaving college (Fischer, 2007). The perception of an unwelcoming campus environment has been found to negatively affect Black student involvement out of the classroom at PWIs (Sutton & Kimbrough, 2001). While campus organizations have become more ethnically diverse, involvement in traditional student organizations by African American students is marginal (Sutton & Kimbrough, 2001).

As previous research shows, one definitive answer does not exist to solve the issue of African American student retention. Summarizing findings from prior studies,

Lang and Ford (1992) point out ten possible factors that are barriers to African American student success. These factors are hostile campus subcultures, more Blacks joining the military, declining financial aid, decline in Black male enrollment due to drugs, prison, and unemployment, poor college preparation, more students going directly to work than college, lack of discipline and education emphasis due to the deterioration of the Black family, high drug use, lack of effort, and lack of adult leadership (Lang & Ford, 1992).

<center>Historically Black Colleges and Universities</center>

Historically Black colleges and universities compromise a small, but important component of America's postsecondary education system. The Integrated Postsecondary Education Data System (IPEDS) defines HBCUs according to the Higher Education Act of 1965, as "any historically Black college or university that was established prior to 1964, whose principal mission was, and is, the education of Black Americans, and that is accredited by a nationally recognized accrediting agency or association determined by the Secretary of Education to be a reliable authority as to the quality of training offered or is, according to such an agency or association, making reasonable programs toward accreditation (IPEDS, n.d.)." According to Redd, while HBCUs constitute just 4% of all universities, they enroll just over 25% of all African American undergraduates at four-year institutions (2000). Additionally, HBCUs produce 28% of all African American bachelor's degree holders (Redd, 2000). The number of HBCUs has been debated. The Department of Education maintains an official listing of HBCUs via the White House Initiative on HBCUs, which currently numbers 105 schools (Department of Education, n.d.). However, IPEDS lists only 99 institutions as HBCUs (IPEDS, n.d.).

<center>53</center>

HBCUs have played an important part in the history of African American education. When African Americans were legally banned from attending universities with White students, the African American community and White missionaries responded with the founding schools that would later be known as HBCUs to cater to their needs to help fill the educational gap for their race. These institutions provided a beacon for African Americans and served as important educational and cultural centers. Anderson indicated that after the emancipation of slavery in 1865, "Education, then, according to the more liberal and dominant segments of missionary philanthropists, was intended to prepare a college-bred Black leadership to uplift the Black masses from the legacy of slavery and the restraints of the post-bellum caste system" (Anderson, 1988, p. 241). W. E. B. DuBois also stated that, "had it not been for the Negro schools and colleges, the Negro would to all intents and purposes, have been driven back to slavery" (DuBois, 1935, p. 667).

At one time, the majority of African American students attended HBCUs as a result of existing forms of segregation, but that figure is now down to one-fourth of African American college students (Freeman & Thomas, 2002). After the passages of the GI Bill and the Civil Rights Act of 1965, educational opportunities for African Americans were greatly expanded. In the 1970s, after court mandates to require PWIs to increase their minority enrollments, a disproportionate shifting of African American students out of HBCUs began. It was also at this time, that many HBCUs began changing their curricula from education and social sciences foci to business administration, management, engineering, public affairs, and health professions (American Association of State Colleges and Universities, 1988). Since the 1990s,

educational trends have found that more African American students are now

matriculating again at HBCUs. Overall, HBCUs are typically lower funded institutions

with less available resources than PWIs. Many studies have found that this institution

type offers better opportunities for learning and ultimately success for African American

students than PWIs (Freeman & Thomas, 2002).

Historically, there have been a number of people who dismissed the idea of

HBCUs and have even demanded their deconstruction. Federal lawsuits have even

challenged the equity of HBCUs. In 1972, *Adams v. Richardson* was filed to force the

Department of Health, Education, and Welfare to enforce institutional compliance of

Title VI of the Civil Rights Act of 1964. As a result, federal courts mandated the 19

Southern states involved in the suit maintain racial diversity at HBCUs, as well as begin

state postsecondary desegregation plans (Palmer, 2010). The desegregation issue was

raised again in 1992 with *United States vs. Fordice*. This case involved the state of

Mississippi and the state's perceived effort to maintain segregation though the different

types of universities based on race. The governor of Mississippi was sued for racial

discrimination in the state university system. The federal courts maintained that state

officials failed to disassemble the dual systems of education in the state and charged the

state with developing a desegregation plan. Additionally, the state was charged with

recruiting and retaining higher numbers of non-Black students at the state's public

HBCUs, as well as paying for new academic programs, construction, and endowments to

bring the institutions up to par with the other state schools (Palmer, 2010).

Less ambitious criticisms of HBCUs have centered on curricula changes at the

institutions, specifically, changing the curricula to more industrial types of programs as

an indirect method to preserve social class disparities between Black and White Americans (LeMelle, 2002). However, HBCUs have resisted these changes and adhered to classical postsecondary curriculum, and as a result have been able to educate highly competent Black leaders and professionals throughout the country.

African American students choose to matriculate at HBCUs for a number of reasons, including financial aid availability, campus climate, under-preparedness from high school, and school history/legacy (Freeman & Thomas, 2002). In terms of student characteristics, there are no distinguishable characteristics between African American college students who choose to attend HBCUs and those that decide to matriculate at PWIs (Freeman & Thomas, 2002). Financial aid is often a deciding factor in choosing HBCUs, as many African American families still cannot afford to finance their student's college education (Freeman & Thomas, 2002). The National Association for College Admissions Counselors determined that the cost of college, availability of financial aid, and the process of applying for financial aid were barriers in the college choice process for African American students ("Report Details College Choice Process for Black Students," 2003). Tuition at HBCUs was found to be considerably less than tuition rates at PWIs ("Report Details College Choice Process for Black Students," 2003). This finding concerning tuition may help HBCUs stay true to their founding missions of providing access to higher education for African Americans (Sissoko & Shiau, 2005).

Aside from academic reasons, social climate and environment are also noted as reasons by African American students for choosing to matriculate at HBCUs (American Association of State Colleges and Universities, 1988). Many students reported that they would not be able to function psychologically at a PWI due to their minority group status

56

(American Association of State Colleges and Universities, 1988). As a result, these students made the decision to attend HBCUs in order to maximize their learning experiences in a safe environment. Nettles, Thoeny, and Gosman (1986) found that Black students who attend HBCUs "benefit from a supportive social, cultural, and racial environment that enhances their successful adaptation to the academic demands of undergraduate life" (from Pascarella & Terenzini, 1991, p. 382).

African American students who attend HBCUs were originally thought of by southern Whites as lower caliber students studying at less rigorous institutions (Freeman, 1998). HBCUs tend to have open admissions policies that may lend credence to this thought. Most studies have found that HBCU students typically have lower high school grade point averages and lower scores on standardized exams such as the SAT and ACT than their African American counterparts at PWIs (Kim, 2002). Many HBCU students have also been found to come from lower socioeconomic statuses, but Freeman & Thomas found that HBCU students come from a variety of economic statuses (2002). Students who attend HBCUs are more likely to be younger, single, and live on campus (Kim, 2002). African American students who attend HBCUs come from a variety of different high school systems and academic backgrounds (Freeman & Thomas, 2002). Parents of students at HBCUs were not found to be any less educated than parents of African American students at PWIs, but they do tend to earn less income (Kim, 2002).

African American Student Engagement at HBCUs

Student engagement has been found to have a positive effect on students who attend HBCUs. In a study of twenty-four institutions, it was found that HBCUs and other minority serving institutions (MSIs) had higher than predicted graduation rates and scores

57

on the NSSE survey when engaging their students in purposefully effective educational

practices (Kuh, Kinzie, Schuh, & Whitt, 2005). Additionally, it was found that the

environments at MSIs also served to provide higher levels of student-faculty interaction,

supportive academic and social campus environment, and a network of more intrusive

engagement policies and practices when compared to other types of institutions (Kuh, et.

al., 2005).

Student engagement practices at HBCUs have been found to benefit students from

under-prepared backgrounds. Benitez found that after controlling for background

characteristics, participating in institutional engagement efforts provided a way to

compensate students for lack of academic preparation and resource inequalities, when

compared to PWIs (1998). Kuh also notes exposure to academic practices has a greater

benefit on first year grades and persistence for lower ability students and students of color

when compared to their white counterparts (2009a).

Cognitive outcome gains for HBCU students were examined in a 1997 study by

Terenzini, Yaeger, Bohr, Pascarella, and Amaury. Specifically, the study sought to

determine if the college experiences of students attending HBCUs differed from PWIs

and if the differences lead to different cognitive gains during the first year of college.

Cognitive gains could be viewed as a result of high level of student engagement. Using

pre and post test data from the National Study of Student Learning, HBCU students were

found to be less likely to considering transferring to another institution. Additionally, it

was determined that differences in experiences of students at the two types of institutions

were unrelated to cognitive development gains at the end of the freshman year. The

researchers determined that this finding was contributable to the low sample size and low number of HBCUs participating in the study (Terenzini, et. al., 1997).

Institution type was examined to determine its effect on African American student experiences of good practice in undergraduate education (Seifert, Drummond, & Pascarella, 2006). Two HBCUs were compared to 16 PWIs using two iterations of the National Study of Student Learning. The PWIs were broken down further into research universities, liberal arts colleges, and regional institutions. When examining engagement through the context of institution type, African American students at HBCUs were found to report significantly greater levels of non-classroom interactions with faculty, faculty interest in teaching and student development, number of essay exams, instructor feedback, scholarly and intellectual emphasis, and quality of interactions with other students. When compared to regional institutions, students at HBCUs were found to have higher reported levels of course-related interaction with peers, academic effort/involvement, computer use, scholarly and intellectual emphasis, number of papers or reports written, and non-course related interactions with peers. Similar levels of engagement were reported for HBCUs and liberal arts colleges (2006). From this study, it can be inferred that HBCU students have higher student engagement scores in a number of areas when compared to peers at PWIs, depending on the type of PWI examined.

African American male engagement differences have also been examined in the context of institution type. Strayhorn and DeVita used data from the College Student Experiences Questionnaire to examine responses of first and second year African American males attending all types of institutions, including HBCUs (2010).

Specifically, responses to three of the principles of good practice in undergraduate education, faculty-student contact, student-student cooperation, and active learning were analyzed. The only significant result of the study indicated African American men who attended liberal arts colleges, compared with those at master's institutions, experienced cooperation among students less frequently. The researchers pointed out that most HBCUs were classified as master's institutions for purposes of this study (Strayhorn & DeVita, 2010).

Student engagement of African American undergraduate students at HBCUs has also been examined by comparing gender differences. Using 12 HBCUs who participated in the 2000 and 2001 NSSE surveys, it was determined that females had significantly higher levels of academic challenge, while males reported significantly higher levels of contact with faculty (Harper, Carini, Bridges, & Hayek, 2004). This study expands on the institutional differences of student engagement by examining gender at one specific type of institution, HBCUs.

African American Student Engagement at PWIs

Studies regarding African American student engagement have also examined engagement at PWIs. Overall, it has been found that African American students are unable to form strong relationships with White faculty at PWIs (Guiffrida & Douthit, 2010). This finding can be attributed to African American student perceptions at PWIs that White faculty are culturally insensitive. As a result, African American students are less likely to seek assistance from faculty and more often turn to family, friends, or academic counselors of their own race for assistance. Additionally African American students at PWIs are more likely to become socially integrated with the campus as a

result of formal associations, such as participation in racial/ethnic minority student organizations (Guiffrida & Douthit, 2010).

In a qualitative study conducted in 2003, Guiffrida sought to examine the impact of racial/ethnic minority student organizations on Black student social integration at PWIs. Findings from 88 students at one PWI revealed that students believed their participation would lead to opportunities to connect professionally with Blacks on campus and in their communities. Participation also provided them with opportunities to give back to fellow students through student advocacy on campus and community service. Lastly, students indicated that participation allowed them a "respite" (Guiffrida, 2003, p. 309) from the White world and a place to be comfortable on campus (Guiffrida, 2003).

Academic achievement and involvement in racial/ethnic minority organizations has also been examined by Guiffrida. Findings indicated that low achieving African American students were more likely than high achieving African American students to be over involvement in racial/ethnic minority student organizations to the point where the involvement interfered with their academic achievement (2004a). This study provides a different prospective on potentially detrimental effects of being overly engaged in one aspect of the collegiate experience for African American students at PWIs.

African American Student Persistence at HBCUs

Karin Chenoweth examined retention of African American students, noting that retaining African American students is more problematic than just the overall issue of retention in higher education (1999). She discovered that the national average retention rate of African American students was 45% within five years, while it was 57% for White

61

students, according to the Frederick D. Patterson Institute (Chenoweth, 1999). Additionally, she acknowledged that retention rates for African American students vary from 30% to 70% at HBCUs, so graduating African American students cannot be solved by enrolling at an HBCU. Chenoweth interviewed presidents and policy makers at HBCUs to determine what they perceived as the main barriers to retention at their respective institutions (1999). Administrators reported that finances seemed to be the biggest issue, since many of their students came from families that did not have a lot of money. A large percentage of their students received scholarships or other forms of need-based financial aid to assist with their financial challenges (Chenoweth, 1999).

McDaniel and Graham (2001) examined student retention at a mid-western HBCU which operated under an open admissions policy. They specifically examined pre and early matriculation variables to predict the one year retention rate of African American and White residential and commuter students on the campus. The total sample consisted of 1949 first-time freshman who completed the "Entering Student Survey" (McDaniel & Graham, 2001). Twenty five predictor variables were identified to determine if the institution was able to adequately predict future enrollment. Overall, the study found that students at the institution who were retained reported better study habits and goals, took fewer developmental courses, had increased ACT scores, had higher high school grades, and had higher class rankings (McDaniel & Graham, 2001). The predictor variables that were most highly correlated with one year retention status were ACT test score, ACT mathematics sub score, adequacy of prior education, high school grade point average, high school rank, and the student's view of actual self. Surprisingly, the study

did not find any significant differences between the subjects' races, even though it was

designed by race and residential status (McDaniel & Graham, 2001).

MaryEllen Hickson also studied persistence in relation to African American

students at an HBCU in Texas (2002). Hickson sought to examine whether the students

in the sample had a mentor as well as whether or not they felt it was necessary to have an

African American professor as their mentor in order to be retained at the institution

(2002). The study included 250 African American students ranging from freshmen to

seniors who were given an eight question survey. Questions related to "the student's

need for a student to have a mentor, the need for a college professor to be a mentor, and

the need for a college professor to be of the same race (Hickson, 2002, p. 187-188)."

Results from Hickson's survey indicated that 88% of the students felt it was

important to have a mentor in order to be successful, but the mentor's race was not

significant (2002). Regarding retention, 73% of the survey respondents felt that having a

professor on campus as a mentor would increase their chances of completing college

(Hickson, 2002). Most importantly, the study highlighted the potential factor of having a

college mentor as being a predictor for African American student retention at an HBCU.

However, the study lacked depth in the instrument that was used, since the survey only

answered a short amount of questions and was not clear in its design. Additionally, the

level of analysis that was performed on the data only involved descriptive statistics, so

additional findings may have been provided if the data was analyzed more in depth.

Schwartz and Washington (2002) sought to predict factors that lead to academic

performance and retention among African American students, focusing specifically on

men at one private liberal arts HBCU in the southeast. A total of 229 African American

men participated in the survey developed by the institution, as well as two national instruments; the Noncognitive Questionnaire Revised (NCQ-R) and the Student Adjustment to College Questionnaire (SACQ). The men were surveyed on cognitive and non-cognitive factors. Information was also collected from the men regarding high school grades, high school rank, and standardized test scores by granting the researchers permission to access their records from the university records office. A total of 15 independent variables were determined from the surveys and the three dependent variables consisted of academic performance as measured by the first semester grade point average, academic probation status, and retention from the first to the second semester (Schwartz & Washington, 2002).

Findings indicated that academic adjustment, personal emotional adjustment, high school rank, high school GPA, and attachment to college were significant predictors for academic performance in the first semester. When performing a stepwise multiple regression analysis, only high school rank and attachment to college remained significant (Schwartz & Washington, 2002). High school rank and high school grades were found to be significant predictors of academic probation. When performing a regression analysis to determine variables that predicted retention, high school rank and social adjustment were found to be significant by the researchers (Schwartz & Washington, 2002).

African American Student Persistence at PWIs

A number of studies have also been conducted regarding the persistence of African American students at predominately White institutions. Furr and Elling examined the experiences of African American students at a southeastern PWI in relation to the factors associated with persistence. They utilized institutional information in their

study of 183 African American freshmen during their first semester on campus and also examined their perceptions of campus climate through the Freshman Climate Survey (Furr & Elling, 2002). The results of this survey were linked to the Entering Freshman Survey that was completed by the students during freshman orientation. The researchers tracked the retention of the original sample of students through seven semesters. The primary focus of the study was to identify early factors that would lead to success for African American students on a predominately White campus. By identifying the factors early, the researchers pointed out that they would be better able to utilize intervention strategies to increase retention (Furr & Elling, 2002).

The researchers were able to break down their findings by year and then provide overall findings for the entire study. After the first year, it was determined that students who were retained had significantly higher cumulative grade point averages (Furr & Elling, 2002). At the end of the second year, it was determined that non-persisters were more likely to work a greater number of hours off campus, indicated family incomes at time of admission of $15,000 or less, and were more likely to leave campus for the weekend (Furr & Elling, 2002). Non-persisters were also more likely to report an experience on campus where they did not feel valued at the university. These same students reported higher levels of a lack of information regarding participation in campus activities than those that were retained. Students who were retained through the third year were more likely to have meaningful discussions with students unlike themselves, work with a faculty member on a project, and were more likely to belong to a social fraternity or religiously-affiliated student group. In terms of academic progress, those who left after the third year had a lower cumulative GPA, fewer semester hours earned,

and fewer cumulative hours earned. Overall, the researchers determined that significant differences existed between returners and non-returners including financial, campus involvement, and academic performance factors (Furr & Elling, 2002).

Zea, Reisen, Beil, and Caplan examined the intention of ethnic minority and non-minority students to remain in college (1997). Predictors studied included coping with college, self-esteem, academic integration, identification with the university, and experiences of disrespect due to race, ethnicity, or religion (Zea, et. al., 1997). The sample consisted of 139 ethnic minority and 507 non-minority students from one private PWI. Data collection consisted of a self-reported questionnaire completed at the end of the first semester in college. Findings indicated that non-minority students reported higher levels of coping, self-esteem, grade point averages, and identification with the university, whereas minority students reported having experienced more instances of disrespect on campus. The experience of disrespect was negatively related to commitment to remain in college. Social integration was found to positively influence commitment to remain for all groups. Additionally, academic achievement and integration were found to have a greater positive impact on minority students' commitment to remain than non-minority students at the institution (Zea, et. al., 1997).

Person and Christensen (1996) sought to identify Black student culture in the context of persistence at a liberal arts PWI in eastern Pennsylvania. A questionnaire designed to provide information related to academic performance, students' backgrounds, level of satisfaction with their college experience, aspirations, and factors related to ethnic identity development was used and was followed up by an additional instrument measuring interpersonal environment (Person & Christensen, 1996). Ninety-three

66

African American students were solicited to participate, with a total sample size of 39 participants.

Results of the study by Person and Christensen indicated a need for an identifiable Black community on campus to provide substantive programming and a supportive environment for African American students (1996). The students also reported the need for institutional support services such as tutoring, summer bridge programs, mentoring, etc. (Person & Christensen, 1996). Over half of the sample reported experiencing some type of racial discrimination on campus, but racial discrimination was not defined for purposes of the study. Fewer than 50% responded that they felt comfortable with faculty members (Person & Christensen, 1996). Through identifying these aspects of the students' experiences, the institution was able to point out potential factors that may be barriers to African American student persistence. However, these findings are not easily generalized as there was an extremely low sample size and only one institution was studied.

<center>Summary of Chapter II</center>

Chapter II provided a foundation for understanding college students, and African American college students in particular, within student engagement and the theoretical landscape of persistence to graduation. A theoretical foundation was established by Spady, Tinto, and Braxton with which to examine persistence to graduation through individual, social, and organizational lenses. Through a review of the literature, social factors, economic factors, levels of campus involvement/engagement, academic factors, and levels of attitude/motivation were all found to be determinants of student persistence. It can be hypothesized that higher levels of student engagement can lead to a greater

<center>67</center>

likelihood of a student persisting to graduation. Particular factors that are relevant to

African American student success were examined, such as campus climate and racial

identity issues, in order to provide a context with which to guide this study. Lastly,

HBCUs were examined in an historical context, as well as studies regarding engagement

and persistence at HBCUs to provide a background for this study.

CHAPTER III

METHODOLOGY

Overview

This chapter outlines the research methodology that was used in the study. Specifically, this chapter includes the research questions, sample description, data collection, and instrument used in the data collection. A description of the validity and reliability follows, with a listing of predictor and criterion variables. The chapter concludes with a description of the statistical analysis that was performed to answer the research questions. This research study was designed as a quantitative study, using secondary data from the National Survey of Student Engagement and graduation rates from the Integrated Postsecondary Education Data System (IPEDS).

Research Questions

The research questions examined in this study are listed below:

1. Are there significant differences by institution type among African American student background variables (mother's level of education, father's level of education, grade point average, sex, enrollment status)?

Hypothesis 1 (H1): There are significant differences by institution type among African American student background variables (mother's level of education, father's level of education, grade point average, sex, enrollment status).

To address hypothesis one, independent samples t-tests were performed to compare background variables of African American students from PWIs and HBCUs. For this question, the independent variable is institution type, while the dependent variables are student background variables (sex, mother's level of education, father's level of education, grade point average, enrollment status). Frequencies only are reported for nominal level background variables, which include sex and enrollment status.

2. Is there a significant relationship between student background variables (institution type, mother's level of education, father's level of education, grade point average, sex, enrollment status) and NSSE benchmark scores (Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Education Experiences, and Supportive Campus Environment) of African American students?

Hypothesis 2 (H2): There is a significant relationship between African American student background variables (institution type, mother's level of education, father's level of education, grade point average, sex, enrollment status) and NSSE benchmark scores (Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Education Experiences, and Supportive Campus Environment).

To address hypothesis two, multiple regression was performed to compare background variables and NSSE benchmark scores of African American

students. For this question, the independent variables are student background variables, while the dependent variables are the five NSSE benchmark scores.

3. Are there significant differences by institution type among African American students on the five NSSE benchmark scores of effective educational practice (Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Education Experiences, and Supportive Campus Environment)?

Hypothesis 3 (H3): There is a significant institutional difference in each of the five NSSE benchmark scores (Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Education Experiences, and Supportive Campus Environment) among African American college students. Benchmark scores at HBCUs will be significantly higher than those at PWIs.

To address hypothesis three, a multivariate analysis of variance (MANOVA) was performed to compare scores between African American students from PWIs and HBCUs on the five benchmark scores from the NSSE. For this question, the independent variable is institution type, while the dependent variables are the five NSSE benchmark scores.

4. Is there a significant difference in institutional graduation rates for African American students who attend Predominately White Institutions (PWIs) and those that attend Historically Black College and Universities (HBCUs)?

Hypothesis 4 (H4): There is a significant positive difference in institutional

graduation rates for African American students who attend HBCUs, as compared

to those that attend PWIs.

To address hypothesis four, an independent samples t-test was

performed to determine if there is a significant difference in the means of

the graduation rates at the two different institution types. For this

question, the independent variable is institution type, with PWIs and

HBCUs as the two different levels of the independent variable. The

dependent variable is graduation rate.

Sample

Participants in the study included senior students who responded to the 2007

National Survey of Student Engagement (NSSE). The data for this sample was collected

by the Center for Postsecondary Research at Indiana University from African American

senior student respondents at 560 institutions that participated in the 2007 NSSE. Of the

560 institutions, 544 were identified as PWIs and 16 were identified as HBCUs. All

African American student responses from HBCUs were included in the sample while 20

percent of the African American senior student responses from each PWI were included.

The Center for Postsecondary Research was only able to provide a 20 percent sample of

PWI respondents, per their data sharing policies. African American status is determined

by the student's self-identified race/ethnicity. The total number of students in the sample

is 2,205. The breakdown of the sample includes 1,177 PWI students ($M = 53.4$) and

1,028 HBCU students ($M = 46.6$).

In order to be included in the original sample of potential survey respondents, each participating NSSE institution would have provided NSSE a data file of all freshmen and senior status students, as defined by their enrollment status. NSSE uses the data file provided by the institution to randomly select half of the students listed as survey participants. Students who were randomly selected to participate in the survey would have been sent a paper and pencil version of the NSSE to complete and return with a postage-paid envelope or an electronic link to the NSSE survey if the school utilized the web version of the NSSE. Participants would have been reminded to complete the survey via a series of four follow-ups from NSSE.

To answer research question four regarding graduation rates, a listing of institutions participating in the 2007 NSSE survey was obtained directly from the NSSE website. From this list, HBCUs and PWIs in the United States were identified by the researcher for inclusion in the sample for question four only.

Data Collection

Data requested from Indiana University's Center for Postsecondary Research, which administers the NSSE, included student responses to all survey items from the 2007 version of the survey. Additionally, enrollment size, Carnegie classification, and institution type (PWI or HBCU) are included. All student and institution identifying information was removed. The National Center for Educational Statistics reports that the majority of full-time students, 58%, in the United States complete a bachelor's degree within six years (National Center for Education Statistics, 2009b). Institutional African American six-year graduation rates were obtained from the IPEDS online data center. The specific institutions that used the NSSE survey in 2007 were identified from the *2007*

Annual Report, from which the researcher was then able to look up each individual

graduation rate. Examination of the institutional graduation rates allowed the researcher

to determine if there was a significant difference between PWI and HBCU six-year

African American graduation rates. Using the 2007 version of the NSSE allowed

comparisons to six-year graduation rates, using the assumption that senior respondents

would have graduated by the year 2009.

Information from NSSE respondents included the following demographic

information: 1) age; 2) sex; 3) international student status; 4) ethnicity; 5) student

classification in college; 6) transfer student status; 7) types of other institutions attended;

8) full or part time enrollment; 9) participation in a sorority or fraternity; 10) participation

as a student athlete; 11) cumulative grade point average, 12) current living location; 13)

highest level of education completed by the mother and father, and 14) major. No

identifiable information was included in the data files provided to the researcher for

confidentiality purposes.

Data Source

The researcher made formal requests via e-mail, accompanied by the researcher's

IRB approval documentation, to 17 institutions' offices of institutional research to

provide the researcher with institution-specific NSSE data and enrollment and graduation

data from student respondents. This included seven HBCUs and ten PWIs. Follow-up

requests were made via phone. Eight universities were expected to be chosen to provide

the researcher with data to be used to compare the relationship between student

engagement and persistence to graduation. The eight universities were to include four

historically Black colleges and universities (HBCUs) and four predominately White

institutions (PWIs) that were comparable on factors such as total student enrollment, African American undergraduate student enrollment, Carnegie classification, and location in the Southeastern part of the United States. From the original data request and follow-up requests, one institution was willing to provide the requested data, 13 were not willing to provide any data, and three were non-responsive. As a result, the researcher was unable to gather enough data directly from the schools to have sufficient power or to make comparisons between institution types. Additionally, the absence of student level enrollment data prevented the researcher from making comparisons to engagement scores and graduation. Consequently, enrollment and graduation data were not included in the study and a larger sample of NSSE data for multiple institutions was utilized.

Data were provided by Indiana University's Center for Postsecondary Research, per the researcher's request. Permission was granted by the University of Louisville's Institutional Review Board to collect the data for purposes of this study. Initial data collection was conducted by NSSE to gather student responses to the instrument and provided per the researcher's request via secure electronic data files. Specific institutional identifying information was not provided in concert with student level respondents; therefore the researcher was unable to determine where the respondent attended school, other than knowing whether the school is a PWI or HBCU and its corresponding Carnegie classification. A complete listing of institutions that participated in the 2007 NSSE is provided on the NSSE website, of which the researcher identified each institution's six-year African American student graduation rate from published data on the IPEDS website. Graduation rates for all participating PWIs and HBCUs were measured as a composite to compare for any significant difference by institution type.

This information was not merged in any way with the student level respondent data provided by NSSE.

Instrument Used in Data Collection

The instrument used in this study is the 2007 version of the National Survey of Student Engagement. A copy of the instrument is located in Appendix A. The survey was established in 1999 with a pilot of 75 schools through a grant from The Pew Charitable Trusts. The Pew Trusts partnered with the National Center for Higher Education Management and the Center for Postsecondary Research and School of Education at Indiana University to develop the survey instrument. The instrument has been revised over the years and was recently administered at over 1,300 institutions in 2010 to measure the students' perceived levels of campus engagement (National Survey of Student Engagement, 2010a).

The rationale for the establishment of the NSSE was to provide a measure of quality to focus on the student experience at an institution. The survey examines the student level responses to the instructional practices and kinds of activities, experiences, and outcomes that students receive at their institution (National Survey of Student Engagement, 2010b). The NSSE provides institutions with information to improve the quality of their undergraduate education programs and provides information to external stakeholders regarding the quality of education students are receiving. With the report of results, NSSE includes comparison results for benchmark institutions, to determine how universities are comparing with schools that are in the same geographic region and sector, as well as by Carnegie classification.

The NSSE is administered to public and private four-year institutions, excluding two-year colleges due to the difference in educational missions. By surveying freshmen and seniors, variation in the experiences of students can be controlled. Specifically, this variation includes the perceived differences in the students' experiences over time at the institution, as they become more familiar with their school. The survey is administered to students during the spring academic term. Data obtained from the NSSE is used by prospective students, parents, college advisors, institutional planners, and educational researchers.

<div align="center">Instrument</div>

The 2007 version of the NSSE consists of 85 questions measuring student behaviors and educational experiences that have been known to impact undergraduate student outcomes (National Survey of Student Engagement, 2010b). Institutions have the option of adding an additional 20 questions to obtain information specific to an institutional consortium, if applicable (Kuh, 2001). Items on the NSSE directly measure student engagement, college outcomes, and institutional quality. Fifteen additional items address demographic characteristics such as age, gender, and parent's educational attainment level. Questions on the instrument fall into three categories; a) college activities - institutional actions and requirements including specific items about the curriculum and faculty behavior; b) educational and personal growth - student behavior regarding how students spend their time inside and outside of the classroom; and c) opinions about your school - student reactions to college regarding the perception of the quality of their experiences and self-reported gains they feel they have developed as a result of college; a separate section includes demographic information. Total time to

complete the instrument is approximately 15 minutes, with 610 institutions participating

in the 2007 iteration of the NSSE (National Survey of Student Engagement, 2007). A

copy of the 2007 NSSE is included in Appendix A.

Five NSSE Benchmarks of Effective Educational Practice

NSSE has established five benchmarks of effective educational practice that can

be identified through clusters of key questions in the survey. The benchmarks are used as

markers of engagement for institutions to use for internal evaluation, as well as to

benchmark with other institutions and institution types (Kuh, 2001). These benchmarks

include Level of Academic Challenge, Active and Collaborative Learning, Student-

Faculty Interaction, Enriching Educational Experiences, and Supportive Campus

Environment (Pascarella, Seifert, & Blaich, 2010). The questions that comprise each

benchmark are listed in Appendix B. The NSSE benchmarks are related to the predictors

of persistence to graduation which were identified in Chapter II.

Level of Academic Challenge

The Level of Academic Challenge benchmark is comprised of 11 questions (1r,

2b, 2c, 2d, 2e, 3a, 3c, 3d, 3e, 9a, and 10a) related to time spent preparing for class, level

of academic rigor of classes with regard to the amount of reading and writing, and

institutional expectations for academic performance. Questions one, two, and ten are

measured on a four-point Likert scale (very often, often, sometimes, never), while

questions three and nine are five (none, 1-4, 5-10, 11-20, more than 20) and eight-point

scales (0, 1-5, 6-10, 11-15, 16-20, 21-25, 26-30, more than 30), respectively.

Active and Collaborative Learning

The Active and Collaborative Learning benchmark includes seven questions (1a, 1b, 1g, 1h, 1j, 1k, and 1t) involving classroom participation and activities, learning outside of the classroom, collaborating with peers, and amounts of tutoring and community-based projects completed. The questions that comprise this benchmark are both student driven and faculty controlled. Question one is measured on a four-point Likert scale (very often, often, sometimes, never).

Student-Faculty Interaction

The Student-Faculty Interaction benchmark includes six questions (1n, 1o, 1p, 1q, 1s, and 7d), measuring time spent discussing coursework with instructors, working with faculty members on projects other than coursework, and timeliness in being given feedback on assignments. Question one is measured on a four-point Likert scale (very often, often, sometimes, never), as is question seven (done, plan to do, do not plan to do, have not decided).

Enriching Educational Experiences

The Enriching Educational Experiences benchmark includes 12 questions (1l, 1u, 1v, 7a, 7b, 7c, 7e, 7f, 7g, 7h, 9d, and 10c) measuring complementary learning opportunities outside of the classroom, such as the extent of interaction with students other than one's own race and ethnicity or who hold different political or religious beliefs, use of technology to complete assignments, and participation in extracurricular activities, community service, and internships. Four-point Likert scales are used to measure questions one (very often, often, sometimes, never) and ten (very much, quite a bit, some, very little). Question seven is measured using a four-point Likert scale (done,

plan to do, do not plan to do, have not decided) and question nine is measured on an

eight-point scale (0, 1-5, 6-10, 11-15, 16-20, 21-25, 26-30, more than 30.

Supportive Campus Environment

The Supportive Campus Environment benchmark includes six questions (8a, 8b,

8c, 10b, 10d, and 10e) regarding the campus environment about academic and non-

academic support, providing social support, and measuring the quality of relationships

with other students, faculty, and administrative personnel. Question eight is measured on

a seven-point Likert scale, with each component question using different values as

answers (8a: one is equal to unfriendly, unsupportive, sense of alienation and seven is

equal to friendly, supportive, sense of belonging; 8b: one is equal to unavailable,

unhelpful, unsympathetic and seven is available, helpful, sympathetic; 8c: one is equal to

unhelpful, inconsiderate, rigid and seven is helpful, considerate, flexible). Question ten is

measured on a four-point Likert scale (very much, quite a bit, some, very little).

Validity and Reliability of NSSE

While few studies exist that examine the psychometric properties of the NSSE, it

remains one of the most popular student engagement studies in the United States.

Additionally, there is little information regarding the validity and reliability of

instruments such as the NSSE when used at minority serving institutions (Kuh, Kinzie,

Cruce, Shoup, & Gonyea, 2007). Many of the questions used on the NSSE have been

used in other survey instruments, such as the Cooperative Institutional Research Program

(CIRP) and the College Student Experiences Questionnaire (CSEQ), both of which have

been found to be valid and reliable measures of college student experiences (Kuh, 2001).

Pike found items on the CSEQ pertaining to gains in college to be highly correlated with

achievement data, a finding that can be extended to the NSSE (1995). Self-reported

grade point average for seniors has been found to have significant positive, but weak bi-

variate correlations with general education gains (.10), practical competence gains (.02),

personal social gains (.05) and the five benchmarks on the NSSE; level of academic

challenge (.11), active and collaborative learning (.15), student-faculty interaction (.17),

enriching educational experiences (.13), and supportive campus environment (.12) at the

$p<.001$ level for one-tailed tests (Kuh, 2001). Overall, the NSSE has been found to have

validity and reliability and works equally well across different racial and ethnic

backgrounds, as well as different institution types (Kuh, Kinzie, Cruce, Shoup, &

Gonyea, 2007).

Validity

Validity examines the degree to which the survey measures what it claims, or

intends to measure. The NSSE survey has been found to use a well-developed and

validated set of items directly linked to experiences related to engagement (Kuh, 2001).

Responses to the NSSE are self-report data, but the survey has been found to have

construct validity, or measures what it intends (2001). Kuh notes that since the survey

has unambiguously phrased questions, the questions are able to be answered by students,

questions refer to recent activities, questions are worded to warrant a thoughtful response

and do not threaten, embarrass, or violate the privacy of respondents, the self-reported

responses are valid (2001). Since the survey is administered in the spring, students will

have had enough experience at their institution to adequately answer the questions posed.

Additionally, to eliminate variability in activity levels, students are asked to choose

frequencies of activities that occur during a typical week to allow for more accurate results.

The NSSE has been found to have external validity, defined by Shadish, Cook, and Campbell as results being able to hold over variations in persons, settings, treatment variables, and measurement variables (2002). NSSE data were used to examine the relationships between student engagement as measured on the NSSE and academic success (National Survey of Student Engagement, 2010c). Student level data, financial aid information, transcripts, and ACT/SAT test scores were examined from 11,000 NSSE student respondents to determine the effects of engagement on persistence. Using logistic regression, student engagement in educationally purposeful activities during the first year of college was found to have a significant positive effect on first year persistence, defined as the student enrolling at the institution into the second year. Additionally, for each standard deviation increase in senior student engagement in educationally purposeful activities, senior year grade point average rose by .03 points, making the findings of the NSSE generalizable to other measures of academic success (National Survey of Student Engagement, 2010b). However, specific descriptive statistical values were not provided for this study.

Validity of the NSSE has also been examined psychometrically via confirmatory factor analysis. Using one university's 2006 NSSE student level results, Carle, Jaffe, Vaughan, and Eder identified three new areas of scale development within the NSSE using existing benchmark questions; student-faculty engagement (SFE), community-based learning activities (CBA), and transformational learning opportunities (TLO) using confirmatory factor analysis (2009). Each construct loaded on a separate factor.

Additionally, the correlations among the factors were able to support that the scales

measured separate, but related engagement constructs (TLO and SFE – 0.50, TLO and

CBA – 0.43, and CBA and SFE – 0.74), thus validating the survey's construct validity

(Carle, et. al., 2009).

Gordon, Ludlum, and Hoey (2008) tested the association between NSSE

benchmarks and students outcomes using ordinary least squares regression for

respondents at one institution surveyed in 2005. Findings indicated a small link between

the benchmarks and GPA for seniors (.053). Student-faculty interaction and enriching

educational experiences were found to have the largest influence on GPA, but exact

figures were not reported.

An additional confirmatory factor analysis conducted by LaNasa, Cabrera, and

Trangsrud found the five NSSE benchmarks did not define an institution's NSSE data as

well as eight newly identified factors from an exploratory factor analysis that was

conducted (2009). These new factors included learning strategies, academic interaction,

institutional emphasis, co-curricular activity, diverse interactions, effort, overall

relationships, and workload. The same result was found by Swerdzewski, Miller, and

Mitchell using data from one institution, but new benchmarks were not identified by the

researchers to better analyze and understand the institution-specific data (2007).

Pike created psychometric scalelet scores from NSSE questions, using factor

analysis, determining that the new scalelets provided convergent validity for student

educational experiences (2006). Pike defines scalelets as a set of survey questions related

to a specific aspect of the educational experiences of a group of students. Scalelets are

not the same as factors, but rather combinations of factors. Additionally, Pike found a

strong relationship between the scalelet scores and self-reported gains in learning. A

regression analysis was performed using the constructed scalelets to predict general

education gains, or gains that refer to increases in writing, speaking, analytical skills, and

the acquirement of a broad general education curriculum. The highest standard

regression coefficients were reported for higher-order thinking (.230), varied experiences

(.214), and course interaction (.196), meaning these variables had the greatest influence

of general education gains. Overall, Pike found institutional characteristics and scalelets

accounted for 81.3% of the variance in general-education gains (2006). The 12 scalelets

provide an additional method for institutions to examine responses to items to supply

actionable information to address student engagement.

The five NSSE benchmark scales were used in conjunction with data from the

Wabash National Study of Liberal Arts Education (WNSLAE) to examine the predictive

validity of the benchmarks in predicting seven end of the first-year outcomes for general

liberal arts education (Pascarella, Seifert, & Blaich, 2010). The seven outcomes included

effective reasoning, problem solving, moral character, inclination to inquire, lifelong

learning, intercultural effectiveness, and personal well-being. Student data was collected

via the administration of the WNSLAE in the first and second semester of the first year,

and the NSSE during the second year. Using 19 institutions as the unit of analysis,

findings indicated at least one NSSE benchmark had significant partial correlations with

each of the first-year liberal arts outcomes, except for the Need for Cognition Scale, when

holding average institutional precollege score on the liberal arts outcomes. Level of

Academic Challenge was significantly correlated with CAAP Critical Thinking Test (.43)

and Positive Attitude Toward Literacy Scale (.51), Active and Collaborative Learning

was significantly correlated with Openness to Diversity/Challenge Scale (.56),

Enriching Educational Experiences was significantly correlated with CAAP Critical

Thinking Test (.44), Defining Issues Test-N2 Score (.44), Miville-Guzman Universality-

Diversity Scale (.57), and Openness to Diversity/Challenge Scale (.41), and Supportive

Campus Environment was significantly correlated with Miville-Guzman Universality-

Diversity Scale (.48), Openness to Diversity/Challenge Scale (.43), and Ryff Scales of

Psychological Well-Being (.73). The higher the partial correlation, the stronger the

association between the variables.

NSSE publishes summary data from each annual test administration to provide

evidence of the validity of the survey. Bi-variate correlations are provided in Table 1 to

show the relationship between NSSE benchmarks and self-reported outcomes from all

freshman and senior 2004 NSSE respondents (National Survey of Student Engagement,

2010c). All correlations were significant. Findings from the 2001 iteration of NSSE

from 1,910 respondents found that engagement in educational practices (evidenced by the

Active and Collaborative Learning and Student-Faculty Interaction benchmarks) was

positively related to cognitive and affective growth, but specific correlations were not

provided (Filkins & Doyle, 2002).

Table 1: 2004 NSSE Benchmark and Self-reported Outcome Correlations

NSSE Benchmarks	Practical Competence		General Education		Personal Social		Grades		Satisfaction	
	FY	SR	FY	SR	FY	SR	FY	SR	FY	SR
Level of Academic Challenge	.42	.37	.50	.48	.44	.43	.14	.12	.29	.28
Active & Collaborative Learning	.32	.31	.35	.34	.39	.39	.17	.17	.25	.23
Student-Faculty Interaction	.34	.29	.36	.36	.42	.41	.11	.16	.25	.29
Enriching Educational Experiences	.26	.18	.29	.30	.38	.36	.11	.14	.22	.22
Supportive Campus Environment	.46	.44	.52	.51	.61	.61	.10	.13	.57	.60

$p<.01$
Key: FY=First year students; SR=Seniors

Overall, the NSSE has been proven to have strong validity as a student engagement instrument. Specifically, it has been found to have internal and external validity through external reviews of its psychometric properties. Additionally, the NSSE benchmarks have been found to have content validity and have been able to be combined with other measures of student success. As a result, it has been determined that the NSSE measures what it intends to measure, student engagement.

Reliability

Reliability refers to the stability of scores over time, as well as the ability of the instrument to measure the same constructs, regardless of place, population, or time. Responses on the NSSE are normally distributed across students and majors (Kuh, 2001).

86

Minimum sample sizes for various sizes of institutions are established by NSSE to

ensure stability in the results. Survey items are examined for consistency between

administration years to test for reliability. Spearman's rho correlations were calculated to

determine stability in student responses across three years for the five benchmarks, using

aggregated institutional level data from 2000, 2001, and 2002. Spearman's rhos for each

benchmark are listed in Table 2 (Kuh, 2001). As evidenced in Table 2, the Spearman's

rhos for the NSSE benchmark scores over three years have been found to be highly

correlated, providing evidence of stability of the test questions and responses over time,

thus proving a measure of reliability. Results provide evidence of the reliability of

institutional benchmark scores across time at the institutional level.

Table 2: NSSE Benchmark Spearman Rho Correlations for 2000, 2001, 2002

Benchmark	Level of Academic Challenge	Active & Collaborative Learning	Student – Faculty Interaction	Enriching Educational Experiences	Supportive Campus Environment
First year students	0.883	0.857	0.738	0.902	0.839
Seniors	0.809	0.746	0.803	0.832	0.863

Test-retest reliability has also been used to provide reliability in survey responses.

In 2000, 569 students from one university were asked to complete the instrument twice in

the same year to test for score reliability. The test-retest data conducted over several

months revealed an overall test-retest reliability coefficient for all students for all survey

item responses of .83, providing a measure of stability in responses. While correlations

from the test-retest were not reported for the five benchmarks, correlation coefficients

were reported for the three main categories of the instrument: college activities (.77), opinions about your school (.70), and educational and personal growth (.69); the correlations coefficients provide evidence of strong stability in student responses over time. Lower correlations on questions have been examined from the test-retest data and slightly modified in wording to increase the internal consistency reliability in the responses (Kuh, 2001). Additional test-retest analysis was conducted several months apart using 1,226 respondents from the 2002 NSSE administration. Test-retest reliability coefficients for Level of Academic Challenge, Active and Collaborative Learning, and Enriching Educational Experiences were all 0.74, Student-Faculty Interaction was 0.75, and Supportive Campus Environment was 0.78 (National Survey of Student Engagement, 2010c). These coefficients indicated a respectable level of test-retest reliability of the scores from the three benchmarks of the 2002 NSSE, where scores between .70-.80 are considered respectable (DeVellis, 2003).

Focus groups have been conducted to help researchers make modifications to wording and layout of the survey, as well as to help better interpret survey results (Kuh, 2001). Qualitative focus group results found students reported the instrument to be easy to read, follow, and understand and interpreted the questions in identical or nearly identical ways, providing evidence of reliability, whereas the students are being measured in the same ways across institutions (Ouimet, Carini, Kuh, & Bunnage, 2001).

Reliability has also been examined in relation to the mode of survey delivery; only a small number of statistically significant differences between the paper and web-based modes of delivery on items were found, with the differences favoring the web-based version of the survey (Kuh, 2001). Using multivariate logistic regression, Carini,

Hayek, Kuh, Kennedy, and Ouimet also found positive differences in NSSE responses by mode of survey delivery, with significantly greater means for each benchmark scale responses via the web-based survey verses the paper version; using .001 significance level, the mean differences between the web and paper version modes of administration are as follows: Level of Academic Challenge (.60), Active and Collaborative Learning (.36), Enriching Educational Experiences (.44), Student-Faculty Interaction (.34), and Supportive Campus Environment (.57) (2003).

Reliability can also be measured psychometrically via reliability coefficients, which measure the proportion of observed score variance accounted for by true score variance to measure internal consistency of item responses. Cronbach's alphas were calculated for the first five iterations of the NSSE from fall 1999 to spring 2002. Cronbach's alphas for the three categories of items on the NSSE include college activities items (.85), educational and personal growth (.90), and opinions about your school (.84), Cronbach's alpha levels of .70 are considered minimally acceptable (DeVellis, 2003).

NSSE also reported internal consistency reliability of the scores generated from different cohorts from 2007. Cronbach's alphas provide a measure of internal consistency when measuring the underlying constructs of the benchmarks (National Survey of Student Engagement, 2010c). Using all seniors who participated in the survey from 2007, Cronbach's alphas were calculated for each benchmark: Level of Academic Challenge (.759), Active and Collaborative Learning (.669), Student-Faculty Interaction (.740), Enriching Educational Experiences (.646), and Supportive Campus Environment (.795), showing respectable reliability in three of the benchmarks and minimally acceptable reliability in the other two.

Overall, based on other studies conducted regarding the psychometric properties of the NSSE, it can be determined that the NSSE is a reliable instrument. Responses to items on the NSSE have been found to be consistent across time and mode of survey delivery. Additionally, benchmark scores have been found to have moderate to high Cronbach's alphas. Scores on the NSSE have stability of scores over time, and the instrument had been found to consistently measure the same constructs, regardless of place, population, or time.

<div align="center">Dependent Variables</div>

The predictors of student engagement and persistence examined in the literature review included social factors, economic factors, campus involvement/engagement factors, academic factors, and attitude/motivational variables. A complete picture of the undergraduate experience could not be addressed without including these factors. While economic variables are important predictors of student engagement and persistence, there are not adequate economic measures that can be gathered from the NSSE. The NSSE is clear in its intent to measure student engagement, rather than student background characteristics, so economic variables were not included as dependent variables in this study.

Background variables in this study can serve as both dependent and independent variables. When measured against NSSE benchmark scores, they are used as dependent variables. These variables include sex, mother's level of education, father's level of education, enrollment status, and grade point average. All background variable information collected from the 2007 NSSE is self-report data from students in their senior year of college. For purposes of this study, since NSSE has already established five

benchmarks of effective educational practice (Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Educational Experiences, and Supportive Campus Environment), the researcher used these as predictor variables. The sum of the number of items on each benchmark of effective educational practice was used as the predictor variable, rather than the individual items that comprise the benchmark. The items that comprise the benchmarks are listed under NSSE benchmarks of effective educational practice.

Academic variables that were addressed in Chapter II were measured as the Level of Academic Challenge and Student-Faculty Interaction benchmarks. Specifically, academic integration is measured via the Student-Faculty Interaction benchmark. Campus involvement/engagement variables from Chapter II were measured using the Enriching Educational Experiences benchmark. The Supportive Campus Environment benchmark was used as a measure of social capital. Lastly, institutional graduation rates are used as a dependent variable in this study.

<center>Independent Variables</center>

One independent variable for this study that was addressed in three of the four research questions is institution type. Institution type was measured as attendance at either a PWI or HBCU. This variable was identified from NSSE data provided to the researcher from the Center for Postsecondary Research at Indiana University, which administers the NSSE survey. Institution type was measured as a dichotomous variable whereas the respondents either attended a PWI or HBCU. It is coded as "0" for PWI attendance and "1" for HBCU attendance.

<center>91</center>

To perform the multiple regression in research question two, all student background

variables (sex, mother's level of education, father's level of education, grade point

average, enrollment status) and institution type were considered independent variables.

A comprehensive list of all variables examined in this study is below.

Table 3: Summary of Variables Examined

Variables	Type	Measured as	Research question
Input			
Sex	Dependent	NSSE question 16	1
Sex	Independent	NSSE question 16	2
Mother's level of education	Dependent	NSSE question 27	1
Mother's level of education	Independent	NSSE question 27	2
Father's level of education	Dependent	NSSE question 27	1
Father's level of education	Independent	NSSE question 27	2
Grade point average	Dependent	NSSE question 25	1
Grade point average	Independent	NSSE question 25	2
Enrollment status	Dependent	NSSE question 22	1
Enrollment status	Independent	NSSE question 22	2
Environment			
Level of Academic Challenge	Dependent	NSSE questions 1r, 2b, 2c, 2d, 2e, 1,23a, 3c, 3d, 3e, 9a, 10a	2, 3
Active and Collaborative Learning	Dependent	NSSE questions 1a, 1a, 1g, 1h, 1j, 1k, 1t	2, 3
Student-Faculty Interaction	Dependent	NSSE questions 1n, 1o, 1p, 1q, 1s, 7d	2, 3
Enriching Educational Experiences	Dependent	NSSE questions 1l, 1u, 1v, 7a, 7b, 7c, 7e, 7f, 7g, 7h, 9d, 10c	2, 3
Supportive Campus Environment	Dependent	NSSE questions 8a, 8b, 8c, 10b, 10d, 10e	2, 3
Institution Type	Independent	Information provided by NSSE in survey data file (questions 1-3) or identified by IPEDS as an HBCU (question 4)	1, 2, 3, 4
Output			
Institutional graduation rates	Dependent	IPEDS reported percentage of full-time, first-time, degree/certificate-seeking undergraduates as measured in six years of initial enrollment	4

Data Analysis

The data were analyzed using quantitative analysis methods. SPSS edition 19.0 statistical software was used to perform quantitative statistical functions. Descriptive statistics such as means and standard deviations were collected for each variable and correlations obtained to determine if any relationships exist between variables, as well as to determine if multicollinearity existed.

Inferential statistics were used to assist in answering the research questions. Prior research determined that relationships existed between the variables listed in the research questions, so independent t-tests, multiple regression, and MANOVA were performed to determine the strength and significance of the relationships.

To answer questions one and four, independent t-tests were performed to determine if significant differences existed between institution type and student background variables and between African American six-year graduation rates for students attending HBCUs versus PWIs. T-tests were performed to evaluate differences in means between two samples and utilize one independent and at least one dependent variable. Assumptions when using t-tests included ensuring the scores are randomly sampled from some population and scores in the population are normally distributed (Shavelson, 1996).

Question one was also answered using chi-square tests for the nominal variables sex and enrollment status. The use of chi-square analysis determined if a significant relationship existed between the variables sex and enrollment status and institution type. Chi-square is used to determine how observed frequencies from a sample fit expected frequencies based on a null hypothesis. Assumptions when using chi-square included

93

observations fall in only one category, observations are measured as frequencies, observations are independent of one another, and no more than 20% of expected frequencies have counts less than five (Shavelson, 1996).

Question two was answered using multiple regression. The use of multiple regression determined if a significant relationship existed between student background variables and NSSE benchmark scores. Multiple regression was used to examine the predictive relationship between a dependent variable and two or more independent variables. Assumptions of multiple regression included independence, normality, homoscedasticity, and linearity (Shavelson, 1996).

MANOVA was performed to address question three. MANOVA consists of at least one independent and two dependent variables. Through examining the multiple dependent variables simultaneously, Type I error was able to be reduced. MANOVA assumptions included normality, independence, and homogeneity of variance (Shavelson, 1996).

CHAPTER IV

RESULTS

Introduction

The results of the study and statistical procedures used are examined in this

chapter. Variables of interest included NSSE benchmark scores of effective educational

practice, student background variables, institution type, and six year African American

graduation rates. Participants in the sample included African American senior students

from PWIs and HBCUs across the United States who participated in the 2007 iteration of

the NSSE survey. This chapter provides a description of the sample, data collection

methods performed to answer the research questions, and results of the study. Further

examination of the study results is explored in Chapter V.

Data Collection

The data for this study were collected using secondary data collection methods.

The researcher was provided the sample of NSSE student level responses directly from

the Center for Postsecondary Research at Indiana University, which administers the

NSSE survey. Responses to all questions on the 2007 survey, as well as calculated NSSE

benchmark scores, institution type, and the 2005 basic Carnegie classification were

included in the sample. For purposes of the study, the variables obtained from the NSSE

data include sex, mother's highest level of education, father's highest level of education, grade point average, enrollment status, five NSSE benchmark scores of effective educational practice, and institution type.

The five NSSE benchmark scores of effective educational practice include a) Level of Academic Challenge, b) Level of Active and Collaborative Learning, c) Student-Faculty Interaction, d) Enriching Educational Experiences, and e) Supportive Campus Environment. The overall student benchmark score is an average of all questions in the benchmark group, using a 100 point scale. In 2007, 148,902 seniors participated in the NSSE survey (National Survey of Student Engagement, 2008).

Secondary information was also obtained to determine which institutions participated in the 2007 version of the NSSE. This information was gathered from the *2007 Annual Report* published by NSSE. The researcher was able to narrow down the list of HBCU participants from the listing, as well as identify the PWIs in the sample. PWIs were classified as those institutions in the United States that were not HBCUs and were not Hispanic Serving Institutions (HSIs). Once the schools were identified, the researcher was able to obtain each institution's six year African American graduation rate using the IPEDS online data center to be used to address research question four.

Data Analysis

Data analysis was conducted using Statistical Package for Social Sciences (SPSS) version 19.0. The statistical procedures that were performed included independent t-tests, multiple regression, and MANOVA. The level of significance for all tests was $p < .05$.

The research study was guided by the four research questions. The variables

addressed in each question and the statistical test performed can be found in Table 4

below. A summary of all variables analyzed in this study can be found in Chapter III.

Table 4: Summary of Variables and Statistical Tests Used in Study

Research Question	Statistical Tests	Independent Variable(s)	Dependent Variable(s)
1	Independent samples t-test, two-way chi-square	Institution Type (0=PWI, 1=HBCU)	Mother's level of education (1=did not finished high school, 2=graduated high school, 3= attended college but did not earn a degree, 4=associate's degree, 5=bachelor's degree, 6=master's degree, 7=doctoral degree), Father's level of education (1=did not finished high school, 2=graduated high school, 3= attended college but did not earn a degree, 4=associate's degree, 5=bachelor's degree, 6=master's degree, 7=doctoral degree), Grade point average (1=C- or lower, 2=C, 3=C+, 4=B-, 5=B, 6=B+, 7=A-, 8=A), Sex (0=male, 1=female), Enrollment status (0=part time, 1=full time),
2	Multiple Regression	Institution Type (0=PWI, 1=HBCU), Mother's level of education (1=did not finished high school, 2=graduated high school, 3= attended college but did not earn a degree, 4=associate's degree, 5=bachelor's degree,	NSSE Benchmark scores of Effective Educational Practice: 1) Level of Academic Challenge 2) Active and Collaborative Learning

| | | 6=master's degree, 7=doctoral degree), Father's level of education (1=did not finished high school, 2=graduated high school, 3= attended college but did not earn a degree, 4=associate's degree, 5=bachelor's degree, 6=master's degree, 7=doctoral degree), Enrollment status (0=part time, 1=full time), Sex (0=male, 1=female), Grade point average (1=C- or lower, 2=C, 3=C+, 4=B-, 5=B, 6=B+, 7=A-, 8=A) | 3)Student-Faculty Interaction

4) Enriching Educational Experiences

5)Supportive Campus Environment |
|---|---|---|---|
| 3 | MANOVA | Institution Type (0=PWI, 1=HBCU) | NSSE Benchmark scores of Effective Educational Practice:

1) Level of Academic Challenge

2) Active and Collaborative Learning

3)Student-Faculty Interaction

4) Enriching Educational Experiences

5)Supportive Campus Environment |
| 4 | Independent samples t-test | Institution Type (0=PWI, 1=HBCU) | African American six year graduation rates |

General Characteristics of Sample

Descriptive statistics were obtained from the sample and were calculated. Table 5

below reports the breakdown of the sample by gender, indicating the majority of

respondents (77%) were female students, while males made up 23% of the sample.

Frequencies were calculated for sex by institution type for 2205 cases. At PWIs, 75% of

the sample was female, comprising 877 respondents, while 25% of the sample was male,

comprising 299 respondents. HBCU responses indicated that 80% of the sample was

female and 20% of the sample was male, comprising 820 and 208 respondents

respectively.

Table 5: Frequency Distributions for Gender

Sex	Total n	PWI n	PWI %	HBCU n	HBCU %
Female	1697	877	74.6	820	79.8
Male	507	299	25.4	208	20.2
Missing	1				
Total	2205	1176		1028	

Table 6 depicts the results for age. As indicated by the table below, the majority

of student respondents at both PWIs and HBCUs, 49.1% and 53.3% respectively, were

20-23 years old. At PWIs, the next largest majority at 17.5% was non-traditional aged

students aged 40-55, while at HBCUs, the next largest majority was 24-29 year old

students. It is interesting to note that the largest majority of students were traditional age

college students.

Table 6: Frequency Distributions for Age

Age Range	Total n	PWI n	PWI %	HBCU n	HBCU %
19 or younger	4	3	.2	1	.2
20-23	1101	562	49.1	539	53.3
24-29	341	182	15.9	159	15.7
30-39	328	183	16.0	145	14.3
40-55	352	200	17.5	152	15.0
Over 55	30	15	1.3	15	1.5
Missing	49				
Total	2205	1145		1011	

Table 7 depicts results for the sample related to mother's highest level of education. As seen in the table, the largest number of students at PWIs and HBCUs ($n = 573$) reported their mothers' highest level of education was completion of a high school degree, followed by completing some college but not obtaining a degree ($n = 469$). Together, these two levels made up almost half of the responses to this question. Overall, the data indicate that mothers of the survey respondents were not likely to have completed a college degree at any level (associate's, bachelor's, master's, or doctoral degree). Additionally, almost 75% of mothers had not obtained a bachelor's degree.

Table 7: Frequency Distributions for Highest Level of Education Completed – Mother

Level	n	PWI n	PWI %	HBCU n	HBCU%
Did not finish high school	331	188	16.1	143	14.0
Graduated high school	573	316	27.1	257	25.2
Attended college but did not complete degree	469	230	19.7	239	23.4
Completed an associate's degree (A.A., A.S., etc.)	249	143	12.3	106	10.4
Completed bachelor's degree (B.A., B.S., etc.)	330	168	14.4	162	15.9
Completed master's degree (M.A., M.S., etc.)	207	109	9.3	98	9.6
Completed a doctoral degree (Ph.D., J.D., M.D., etc.)	28	13	1.1	15	1.5
Missing	18				
Total	2205	1167		1020	

Table 8 depicts results for the sample related to father's highest level of

education. As seen in the table, the largest number of students at both PWIs and HBCUs

(n = 776) reported their fathers' highest level of education was completion of a high

school degree, followed by not completing high school (n = 441) as the next highest

level. Together, these two levels made up 56.3% of the responses to this question.

Additionally, at PWIs 77.2% of fathers had not completed a bachelor's degree, compared

to 79.5% of fathers at HBCUs. Overall, the data indicate that fathers of the respondents

were not as likely as mothers to have completed any college coursework or obtained any

type of college degree, regardless of achievement level.

Table 8: Frequency Distributions for Highest Level of Education Completed - Father

Level	n	PWI n	PWI %	HBCU n	HBCU %
Did not finish high school	441	252	21.9	189	18.7
Graduated high school	776	387	33.6	389	38.5
Attended college but did not complete degree	348	178	15.4	170	16.8
Completed associate's degree (A.A., A.S., etc.)	128	73	6.3	55	5.5
Completed bachelor's degree (B.A., B.S., etc.)	290	160	13.9	130	12.9
Completed master's degree (M.A., M.S., etc.)	118	70	6.1	48	4.8
Completed a doctoral degree (Ph.D., J.D., M.D., etc.)	60	32	2.8	28	2.8
Missing	44				
Total	2205	1152		1009	

Table 9 reports cumulative grade point averages for the sample. Grades are

reported by NSSE as letter grades instead of numerical ratios and are self-reported by

students. The range of grades reported includes A to C- or lower. The highest frequency

of students at both HBCUs and PWIs ($n = 559$) reported earning a B average, followed

by the next highest frequency of students ($n = 478$) earning a B+ average. Overall,

102

16.5% of PWI respondents reported a cumulative grade point average of a C+ or below, as compared to only 12% of HBCU students. From these data, it was determined that less than one fourth of the PWI sample (23.3%) had earned a cumulative grade point average of at least an A, as compared to 28.2% of the HBCU respondents.

Table 9: Frequency Distributions for Cumulative Grade Point Average

Grade Range	n	PWI n	PWI %	HBCU n	HBCU %
C- or lower	9	7	.6	2	.2
C	96	64	5.5	32	3.1
C+	209	121	10.4	88	8.7
B-	273	157	13.5	116	11.4
B	559	305	26.2	254	25.0
B+	478	239	20.5	239	23.5
A-	236	118	10.1	118	11.6
A	322	154	13.2	168	16.5
Missing	23				
Total	2205	1165		1017	

Table 10 presents data based on student enrollment status. Enrollment status was defined as either full time or less than full time. An overwhelming majority of the sample reported attending their institution full time at the time of the survey was conducted ($n = 1802$) as compared to those who attended less than full time ($n = 395$). At PWIs, 958 students or 81.6% of the sample indicated they were enrolled full time, while 18.4% or 216 students indicated they were enrolled less than full time. At HBCUs, 844 students or 82.5% indicated they were enrolled full time, while 17.5% or 179 students indicated they were enrolled less than full time.

103

Table 10: Frequency Distributions for Enrollment Status

Status	*n*	PWI *n*	PWI %	HBCU *n*	HBCU %
Full time	1802	958	81.6	844	82.5
Less than full time	395	216	18.4	179	17.5
Missing	8				
Total	2205	1174		1023	

Setting

The sample is unique in that there is not one particular setting in which the survey was administered, but rather it was administered at 560 different institutions. As previously reported, the NSSE survey was administered in 2007 to 544 PWIs and 16 HBCUs. The setting can be further broken down and examined according to the 2005 basic Carnegie classifications, a classification system that describes institutions according to their attributes and behaviors. The highest number of sample respondents at both PWIs and HBCUs (n = 694) attended masters colleges and universities – larger programs, comprising 30.2 % and 32.9% respectively. The next highest classification indicated for PWI students at 17.2% was research universities (high research activity) and masters colleges and universities (smaller programs) for HBCUs at 28.5%. Overall, 20.4% of students in the sample attended research universities, 52.6% attended masters colleges and universities, and 26.1% attended baccalaureate colleges. It is important to note that HBCUs did not comprise any of the research universities in the sample, while 38.1% of the PWI students attended research universities. The full breakdown of respondents by Carnegie classification is found in Table 11.

Table 11: Frequency Distributions for Carnegie Classification

Classification	n	PWI n	PWI %	HBCU n	HBCU %
Research Universities (very high research activity)	118	118	10.0	0	0.0
Research Universities (high research activity)	203	203	17.2	0	0.0
Doctoral/Research Universities	128	128	10.9	0	0.0
Masters Colleges & Universities (larger programs)	694	356	30.2	338	32.9
Masters Colleges & Universities (medium programs)	84	84	7.1	0	0.0
Masters Colleges & Universities (smaller programs)	382	89	7.6	293	28.5
Baccalaureate Colleges – Arts & Sciences	207	79	6.7	128	12.4
Baccalaureate Colleges – Diverse Fields	352	83	7.1	269	26.2
Other Baccalaureate Colleges/Associate Colleges	16	16	1.4	0	0.0
Faith-related; Professional; Business; Art, Music & Design	21	21	1.8	0	0.0
Total	2205	1177		1028	

Reliability Analysis

As stated in chapter III, reliability statistics are reported annually by NSSE for

each of the benchmarks of effective practice (National Survey of Student Engagement,

2007). A reliability analysis was performed using the sample of 2205 student

respondents and results were compared with the 2007 national reliability analysis for

each benchmark. Results are shown below in Table 12.

Table 12: Comparison of Reliability Coefficients

Benchmark	NSSE reported Cronbach's alpha	Observed Cronbach's alpha
Level of Academic Challenge	.759	.703
Active and Collaborative Learning	.669	.733
Student-Faculty Interaction	.740	.743
Enriching Educational Experiences	.646	.762
Supportive Campus Environment	.795	.681

The Academic Challenge benchmark for the study revealed a lower Cronbach's

alpha than that of the 2007 national calculation, with a difference of .056. This was also

true for the Supportive Campus Environment benchmark, where the current Cronbach's

alpha is 0.114 lower than the NSSE reported figure for 2007. However, internal

consistency for the other three benchmarks was higher than the national reliability

coefficients. The discrepancies may be due to the comparisons between all 2007 test

takers and just one subgroup of students (African Americans) in the current sample.

DeVellis states Cronbach's alphas which are .7 and above indicate satisfactory reliability,

while alphas in the .65 to .7 range are minimally acceptable. All but Supportive Campus

Environment met the recommendation of having satisfactory reliability (2003).

However, as the Cronbach alpha for Supportive Campus Environment was close to .7

(.681), it was determined that the benchmark had sufficient reliability for purposes of this study.

Research Question 1

RQ 1: Are there significant differences by institution type among African American student background variables (mother's level of education, father's level of education, grade point average, sex, enrollment status)?

H$_1$: There are significant differences by institution type among African American student background variables (mother's level of education, father's level of education, grade point average, sex, enrollment status).

To address research question one, independent samples t-tests were performed to test for differences between the independent variable institution type and dependent variables mother's level of education, father's level of education, and grade point average. Two-way chi square tests were performed on the independent variables sex and enrollment status, as they were nominal variables.

Independent samples t-tests were performed on each interval level dependent variable and the independent variable institution type. The first dependent variable used was mother's level of education. The independent variable was coded 0 = PWI and 1 = HBCU. Mother's level of education was coded 1 = did not finish high school, 2 = graduated high school, 3 = attended college, but did not complete a degree, 4 = completed an associate's degree, 5 = completed a bachelor's degree, 6 = completed a master's degree, and 7 = completed a doctoral degree. The table below shows sample means and standard deviations for mother's level of education.

Table 13: Means and Standard Deviations of Mother's Level of Education by Institution Type

Institution type	N	Mother's Level of Education	
		M	*SD*
PWI	1167	3.14	1.617
HBCU	1020	3.24	1.612

Students from PWIs and HBCUs in the sample both indicated that almost two thirds of mothers had attended college, but had not completed a degree. An independent samples t-test found no significant difference among institution types on the variable mother's level of education, $t(1,2185) = -1.359, p = .174$. Thus, there was no significant difference in mother's level of education of African American students who attended PWIs versus HBCUs, so the hypothesis was rejected.

The next dependent variable examined was father's level of education. The independent variable institution type was coded 0 = PWI and 1 = HBCU. Father's level of education was coded 1 = did not finish high school, 2 = graduated high school, 3 = attended college, but did not complete a degree, 4 = completed an associate's degree, 5 = completed a bachelor's degree, 6 = completed a master's degree, and 7 = completed a doctoral degree. The table below shows sample means and standard deviations for father's level of education.

Table 14: Means and Standard Deviations of Father's Level of Education by Institution Type

Institution type	N	Father's Level of Education	
		M	*SD*
PWI	1152	2.86	1.675
HBCU	1009	2.81	1.594

Students from PWIs and HBCUs in the sample both indicated that almost three fourths of fathers had attended college, but had not completed a degree. An independent samples t-test found no significant difference among institution types on the variable father's level of education, $t(1,2159) = .784, p = .433$. Thus, there was no significant difference in father's level of education of African American students who attended PWIs versus HBCUs, so the hypothesis was rejected.

The last dependent variable examined using a t-test was grade point average. The independent variable institution type was coded 0 = PWI and 1 = HBCU. Grade point average was coded 1 = C- or lower, 2 = C, 3 = C+, 4 = B-, 5 = B, 6 = B+, 7 = A-, and 8 = A. The table below shows sample means and standard deviations for grade point average.

Table 15: Means and Standard Deviations for Grade Point Average by Institution Type

Institution type	N	Grade Point Average	
		$\underline{M}$	$\underline{SD}$
PWI	1165	5.27	1.694
HBCU	1017	5.57	1.623

Students from PWIs indicated mean grade point averages of B, while students from HBCUs indicated mean grade point averages of B+. An independent samples t-test found this difference was significant, $t(1,2180) = -4.212, p = .000$. Cohen's d was .181, which showed a small effect size. Thus, there was a significant difference in grade point averages of African American students who attended PWIs versus HBCUs, so the hypothesis was accepted. Students from HBCUS were found to have significantly higher grade point averages than students from PWIs.

109

The next dependent variable examined was sex. The independent variable

institution type was coded 0 = PWI and 1 = HBCU. Sex was coded 0 = male and 1 =

female. The table below shows frequencies for sex by institution type.

Table 16: Frequencies for Sex by Institution Type

Institution type	Male	Female	Total
PWI	299	877	1176
HBCU	208	820	1028
Total	507	1697	

Institution type and sex were examined by conducting a chi-square analysis. The

analysis for sex yielded a $\chi^2(1, 2204) = 8.347, p=.005$. Thus, there was significance

found, so it was determined that sex and institution type were related to each other.

The last dependent variable examined was enrollment status. The independent

variable institution type was coded 0 = PWI and 1 = HBCU. Enrollment status was

coded 0 = part time and 1 = full time. The table below shows frequencies for enrollment

status by institution type.

Table 17: Frequencies for Enrollment Status by Institution Type

Institution type	Part time	Full time	Total
PWI	216	958	1174
HBCU	179	844	1023
Total	395	1802	2197

Institution type and enrollment status were examined by conducting a chi-square

analysis. The analysis for enrollment status yielded a $\chi^2(1, 2202) = .301, p=.005$. Thus,

there was no significance was found, so it was determined that enrollment status and

institution type were not related to each other.

110

Research Question 2

RQ 2: Is there a significant relationship between student background variables (institution type, mother's level of education, father's level of education, grade point average, sex, enrollment status) and NSSE benchmark scores (Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Education Experiences, and Supportive Campus Environment) of African American students?

H_2: There is a significant relationship between African American student background variables (institution type, mother's level of education, father's level of education, grade point average, sex, enrollment status) and NSSE benchmark scores (Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Education Experiences, and Supportive Campus Environment).

To address research question two, multiple regression analysis was performed using NSSE benchmark scores as the dependent variables. Background characteristics consisting of institution type, mother's level of education, father's level of education, grade point average, sex, and enrollment status were entered as independent variables in one block. Separate multiple regression analyses were performed using each individual NSSE benchmark score and using all student background variables, for a total of five multiple regression analyses. Assumptions were tested for all five analyses by examining the normal probability plots and scatter plots of residuals. No violations of linearity, normality, or homoscedasticity were detected.

The first multiple regression analysis was performed using Level of Academic Challenge as the dependent variable. The regression analysis for the background variables provided an $R^2 = .064$. This indicated that six percent of the variance in Level of Academic Challenge was significantly explained by the student background variables, $F(6, 2129) = 24.25$, $p<.05$. In terms of individual relationships between Level of Academic Challenge and student background variables, only enrollment status ($t = 7.61$, $p<.05$) and grade point average ($t = 8.96$, $p<.05$) were significant predictors of Level of Academic Challenge scores. Thus, higher grade point averages and attending the institution full time were more likely to lead to higher Level of Academic Challenge scores.

The full regression analysis can be found in Table 18. The corresponding regression equation for the model consisting of all background characteristics was:

$$LAC = 41.848 + .788TYPE - .212MOTHER + .051FATHER +$$

$$6.038ENROLL + .273SEX + 1.622GPA$$

Thus, for Level of Academic Challenge, the hypothesis was accepted since the overall regression equation was significant. Of the six predictors, two of the six background characteristics (enrollment status and grade point average) contributed significantly to Level of Academic Challenge benchmark scores, whereas the others (institution type, mother and father's level of education, and sex) did not contribute to predicting Level of Academic Challenge scores. The negative $B = -.212$ for mother's level of education indicated that this variable contributes negatively to the model, but not at a significant rate. Additionally, the amount of variance explained by the significant predictors can be determined as small (6%).

Table 18: Regression on Level of Academic Challenge

	B	Std. Error	β	t	sig
(Constant)	41.848	1.423		29.415	.000
Institution Type	.788	.604	.028	1.305	.192
Mother's Education	-.212	.222	-.024	-.956	.339
Father's Education	.051	.217	.006	.234	.815
Enrollment Status	6.038	.793	.162	7.609	.000
Sex	.273	.714	.008	.382	.703
Grade Point Average	1.622	.181	.190	8.960	.000

Multiple regression analysis was then performed using Active and Collaborative Learning as the dependent variable. The regression analysis for the background variables provided an $R^2 = .094$. This indicated that nine percent of the variance in Active and Collaborative Learning was significantly explained by the student background variables, $F(6, 2132) = 37.058, p<.05$. In terms of individual relationships between Active and Collaborate Learning and student background variables, institution type ($t = 8.662, p<.05$), enrollment status, ($t = 8.152, p<.05$) and grade point average ($t = 7.771, p<.05$) were significant predictors of Active and Collaborative Learning scores.

The full regression analysis can be found in Table 19. The corresponding regression equation for the model consisting of all background characteristics was:

$$ACL = 36.014 + 6.525TYPE + .325MOTHER - .288FATHER +$$

$$8.071ENROLL - 1.370SEX + 1.755GPA$$

Thus, for Active and Collaborative Learning, the hypothesis was accepted since the overall regression equation was significant. Of the six predictors only three of the six background characteristics (institution type, enrollment status, and grade point average) contributed significantly to Active and Collaborative Learning benchmark scores, but

113

only at the small amount of nine percent. Attending an HBCU, being enrolled full time, and having a higher grade point average were all predictors of higher Active and Collaborative Learning scores. Additionally, it was found that father's level of education and sex negatively contributed to predicting Active and Collaborative Learning scores, but not significantly.

Table 19: Regression on Active and Collaborative Learning

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	*β*	*t*	sig
(Constant)	36.014	1.755		20.288	.000
Institution Type	6.525	.753	.180	8.662	.000
Mother's Education	.325	.277	.029	1.177	.239
Father's Education	-.288	.271	-.026	-1.062	.288
Enrollment Status	8.071	.990	.170	8.152	.000
Sex	-1.370	.891	-.032	-1.537	.124
Grade Point Average	1.755	.226	.162	7.771	.000

Multiple regression analysis was then performed Student-Faculty Interaction as the dependent variable. The regression analysis for the background variables provided an $R^2 = .082$. This indicated that eight percent of the variance in Student-Faculty Interaction was significantly explained by the student background variables, $F(6, 2132) = 31.627, p<.05$. In terms of individual relationships between Student-Faculty Interaction and student background variables, institution type ($t = 5.984, p<.05$), enrollment status, ($t = 9.082, p<.05$), sex ($t = -2.664, p<.05$), and grade point average ($t = 6.144, p<.05$) were significant predictors of Student-Faculty Interaction scores.

The full regression analysis can be found in Table 20. The corresponding regression equation for the model consisting of all background characteristics was:

$$\text{SFI} = 25.430 + 5.307\text{TYPE} + .584\text{MOTHER} + .292\text{FATHER} +$$

$$10.585\text{ENROLL} - 2.794\text{SEX} + 1.633\text{GPA}$$

Thus, for Student-Faculty Interaction, the hypothesis was accepted since the overall

regression equation was significant. Of the six predictors four of the six background

characteristics (institution type, enrollment status, sex, and grade point average)

contributed significantly to Student-Faculty Interaction benchmark scores, but only at the

small amount of eight percent. Attending an HBCU, being enrolled full time, being

female, and having a higher grade point average were all predictors of higher Student-

Faculty Interaction scores. Additionally, it was found that sex negatively contributed to

predicting Student-Faculty Interaction scores, indicating that being male had a significant

negative effect in predicting Student-Faculty Interaction.

Table 20: Regression on Student-Faculty Interaction

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	β	t	Sig
(Constant)	25.430	2.090		12.169	.000
Institution Type	5.307	.877	.125	5.984	.000
Mother's Education	.584	.326	.044	1.793	.073
Father's Education	.292	.319	.023	.914	.361
Enrollment Status	10.585	1.166	.191	9.082	.000
Sex	-2.791	1.049	-.056	-2.664	.008
Grade Point Average	1.633	.266	.129	6.144	.000

Enriching Educational Experiences was then used as the dependent variable for

the next multiple regression analysis. The regression analysis for the background

variables provided an $R^2 = .085$. This indicated that approximately nine percent of the

variance in Enriching Educational Experiences was significantly explained by the

student background variables, $F(6, 2130) = 33.024$, $p<.05$. In terms of individual

115

relationships between Enriching Educational Experiences and student background

variables, institution type ($t = 3.908$, $p<.05$), mother's level of education ($t = 5.276$,

$p<.05$), enrollment status, ($t = 8.629$, $p<.05$), and grade point average ($t = 6.30$, $p<.05$)

were significant predictors of Enriching Educational Experiences scores. The full

regression analysis can be found in Table 21. The corresponding regression equation for

the model consisting of all background characteristics was:

$$EEE = 19.794 + 3.031TYPE + 1.502MOTHER + .139FATHER +$$

$$8.792ENROLL - .553SEX + 1.465GPA$$

Thus, for Enriching Educational Experiences, the hypothesis was accepted since

the overall regression equation was significant. Of the six predictors, only four of the

six background characteristics (institution type, mother's level of education, enrollment

status, and grade point average) contributed significantly to Enriching Educational

Experiences benchmark scores, but only at the small amount of nine percent. Attending

an HBCU, having a mother with a high level of education, being enrolled full time, and

having a higher grade point average were all predictors of higher Enriching Educational

Experiences scores.

Table 21: Regression on Enriching Educational Experiences

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	β	t	Sig
(Constant)	19.794	1.828		10.830	.000
Institution Type	3.031	.776	.082	3.908	.000
Mother's Education	1.502	.285	.130	5.276	.000
Father's Education	.139	.279	.012	.498	.619
Enrollment Status	8.792	1.019	.181	8.629	.000
Sex	-.553	.917	-.013	-.603	.547
Grade Point Average	1.465	.233	.132	6.300	.000

Supportive Campus Environment was used as the dependent variable for the last multiple regression analysis. The regression analysis for the background variables provided an $R^2 = .026$. This indicated that approximately three percent of the variance in Supportive Campus Environment was significantly explained by the student background variables, $F(6, 2129) = 9.594, p<.05$. In terms of individual relationships between Supportive Campus Environment and student background variables, institution type ($t = 2.639, p<.05$), father's level of education ($t = -2.524, p<.05$), sex, ($t = -3.289, p<.05$), and grade point average ($t = 5.422, p<.05$) were significant predictors of Supportive Campus Environment. The full regression analysis can be found in Table 22. The corresponding regression equation for the model consisting of all background characteristics was:

$$SCE = 57.184 + 2.235TYPE - .176MOTHER - .769FATHER +$$

$$1.837ENROLL - 3.291SEX + 1.376GPA$$

Thus, for Supportive Campus Environment, the hypothesis was accepted since the overall regression equation was significant. Of the six predictors, four of the six background characteristics (institution type, father's level of education, sex, and grade point average) contributed significantly to Supportive Campus Environment benchmark scores, but only at the small amount of three percent. Attending an HBCU, having a father with a high level of education, being female, and being enrolled full time were all predictors of higher Supportive Campus Environment scores. Additionally, it was found that father's level of education and being male negatively contributed to predicting Supportive Campus Environment, in a significant way.

Table 22: Regression on Supportive Campus Environment

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	*β*	*t*	sig
(Constant)	57.184	1.995		28.662	.000
Institution Type	2.235	.847	.057	2.639	.008
Mother's Education	-.176	.311	-.014	-.566	.572
Father's Education	-.769	.305	-.064	-2.524	.012
Enrollment Status	1.837	1.112	.036	1.652	.099
Sex	-3.291	1.001	-.071	-3.289	.001
Grade Point Average	1.376	.254	.117	5.422	.000

Research Question 3

RQ 3: Are there significant differences by institution type (PWI and HBCU) among African American students on the five NSSE benchmark scores of effective educational practice (Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Education Experiences, and Supportive Campus Environment)?

H_3: There is a significant institutional difference in each of the five NSSE benchmark scores (Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Education Experiences, and Supportive Campus Environment) among African American college students. Benchmark scores at HBCUs will be significantly higher than those at PWIs.

To examine research question three, a multivariate analysis of variance (MANOVA) was performed to compare the means of each benchmark score by institution type on 2200 students for whom completed data were provided for each variable. Institution type was used as the independent variable with two levels (0 = PWI,

118

1 = HBCU) and the five NSSE benchmark scores served as the dependent variables.

High levels on the benchmark scores indicate high levels of self-reported student

engagement on the variable. Means and standards deviations for benchmark scores by

institution type are reported in Table 23.

Table 23: Means and Standard Deviations for NSSE Benchmark Scores

	NSSE Benchmark Scores									
	Level of Academic Challenge		Active & Collaborative Learning		Student-Faculty Interaction		Enriching Educational Experiences		Supportive Campus Environment	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
PWI	55.08	14.27	51.04	17.88	43.28	20.21	39.49	18.23	60.83	19.73
HBCU	56.20	14.40	57.84	17.72	48.92	21.88	42.92	18.77	63.14	19.36

Scores on the Level of Academic Challenge benchmark were higher at HBCUs

(M = 56.20) than at PWIs (M = 55.08). Active and Collaborative Learning scores were

also higher at HBCUs (M = 57.84) than at PWIs (M = 51.04). The mean score for

Student-Faculty Interaction was higher at HBCUs (M = 48.92) than at PWIs (M = 43.28).

Mean score for Enriching Educational Experiences was higher at HBCUs (M = 42.92)

than at PWIs (M = 39.49). Lastly, the Supportive Campus Environment mean score was

higher at HBCUs (M = 63.14) than at PWIs (M = 60.83). All five mean benchmark

scores were found to be higher at HBCUs than at PWIs, indicating higher levels of

student engagement at HBCUs.

A correlation analysis was performed using the institution type variable and

NSSE benchmark score variables. Table 24 shows the results of the correlation

analysis.

Table 24: Correlations among Institution Type and NSSE Benchmark Scores

Variable	Institution Type	Level of Academic Challenge	Active and Collaborative Learning	Student-Faculty Interaction	Enriching Educational Experiences	Supportive Campus Environment
Institution Type	1.00					
Level of Academic Challenge	.040	1.00				
Active and Collaborative Learning	.188*	.519*	1.00			
Student-Faculty Interaction	.132*	.484*	.640*	1.00		
Enriching Educational Experiences	.094*	.441*	.535*	.600*	1.00	
Supportive Campus Environment	.061*	.313*	.345*	.425*	.315*	1.00

*p<.05

All variables were found to be correlated with one another significantly at alpha

.05 level with the exception of institution type and Level of Academic Challenge, p =

.059. Significant correlations were found between Student-Faculty Interaction and

Active and Collaborative Learning (r = .640), meaning that higher Student-Faculty

Interaction scores would likely indicate high Active and Collaborative Learning scores.

The r^2 value was .410, indicating that 41% of variation in Student-Faculty Interaction

scores can be contributed by Active and Collaborative Learning. The correlation

between Enriching Educational Experiences and Active and Collaborative Learning was r

= .535, with r^2 = .286, indicating that 28.6% of the variance in Enriching Educational

Experiences scores can be contributed to Active and Collaborative Learning. Enriching Educational Experiences and Student-Faculty Interaction had a correlation of $r = .600$ and $r^2 = .360$, indicating that 36% of the variance in Enriching Educational Experiences could be explained by Student-Faculty Interaction scores. All significant correlations were above .5, indicating large effect sizes (Cohen, 1988).

Weak positive correlations were found with all benchmarks and institution type. This finding indicates that there is not a strong relationship between individual benchmark scores and institution type. However, while correlations were weak, the correlations between institution type and Active and Collaborative Learning ($r = .188$), Student-Faculty Interaction ($r = .132$), Enriching Educational Experiences ($r = .094$), and Supportive Campus Environment ($r = .061$) were all significant. This finding may be due to the large sample size in the study.

The Box's test of equality of covariance matrices was performed and found to be significant ($p = .003$), which violated the assumption of homogeneity of variance. However, the Bartlett's test of sphericity was also performed and found to be significant ($p = .000$), indicating that there was sufficient correlation between the dependent variables to proceed with the analysis, so it was determined that MANOVA was able to be performed. All other assumptions were met. The Wilks' lambda, .959, for the MANOVA was statistically significant, $F(2, 5) = 18.716, p = .000$. The Wilks' lambda value of .959, indicated that four percent of the variance in NSSE benchmark scores can be explained by institution type. The partial eta squared for the MANOVA was reported as .041, which can be interpreted by Cohen as a moderate effect size (1988). The

observed power for the MANOVA was 1.000, indicating a high probability of finding a statistically significant difference when one exists.

ANOVAs were performed on each benchmark to determine how each benchmark contributed to the overall significance of the MANOVA performed. All dependent variables with the exception of Level of Academic Challenge were found to be significant at .05 alpha level. Level of Academic Challenge results from the ANOVA were $F(1, 2198) = 3.35, p = .068$ and a partial eta squared of .002, indicating a trivial effect size. Results from the Active and Collaborative Learning benchmark from ANOVA were $F(1, 2198) = 79.96, p = .000$ and partial eta squared of .035, showing a moderate effect size. Student-Faculty Interaction results found $F(1, 2198) = 39.39, p = .000$ and a small effect size of partial eta squared value of .018. Enriching Educational Experiences results indicated $F(1, 2198) = 18.80, p = .000$ and partial eta squared of .008, showing a trivial effect size. Supportive Campus Environment results found $F(1, 2198) = 7.610, p = .006$, and a partial eta squared of .003, indicating a trivial effect size. While all benchmarks but Level of Academic Challenge were found to be significant, only Active and Collaborative Learning had a moderate effect size.

To summarize research question three, a MANOVA was performed to determine if significant differences existed in NSSE benchmark scores by institution type. It was determined that the MANOVA was significant, indicating significant differences existed in NSSE benchmark scores according to institution type. Additionally, it was determined that HBCUs had significantly greater engagement scores than PWIs. Follow-up ANOVAs were performed on each NSSE benchmark score and it was determined that significant differences were found on the Active and Collaborative Learning, Student-

Faculty Interaction, Enriching Educational Experiences, and Supportive Campus

Environment variables. The directional hypothesis could be partially accepted, with the

exception of the Level of Academic Challenge variable. Correlation analyses showed

low to moderate intercorrelations for all variables, with all correlations being significant

with the exception of institution type and Level of Academic Challenge.

Research Question 4

RQ 4: Is there a significant difference in institutional African American

graduation rates between students who attend Predominately White Institutions (PWIs)

and those that attend Historically Black College and Universities (HBCUs)?

H_4: There is a significant positive difference in institutional graduation

rates for African American students who attend HBCUs, as compared to

those that attend PWIs.

Research question four was addressed by conducting an independent samples t-

test with the independent variable institution type, with PWIs and HBCUs as the two

different levels. The dependent variable is graduation rate. The independent variable

was coded (0 = PWI and 1 = HBCU). The number of schools in the sample was not

equal, with a disproportionate number of PWIs ($n = 520$) when compared to HBCUs ($n = $

16). The table below shows sample means and standard deviations for institutional

African American six year graduation rates.

Table 25: Means and Standard Deviations of Institutional African American Six Year
Graduation Rates

Institution type	N	Six Year Graduation Rate	
		$\underline{M}$	$\underline{SD}$
PWI	520	43.21	23.83
HBCU	16	36.63	16.95

123

PWIs in the sample had higher six year graduation rates for their African

American students (M =43.21) than HBCUs (M = 36.63). However, an independent

samples t-test found no significant difference among institution type on the variable six

year African American graduation rate, $t(1,534) = 1.2$, $p = .274$. This finding is most

likely due to the large difference in the size of the two groups of institutions. Thus, there

was no significant difference in the six-year graduation rates of African American

students who attended PWIs versus HBCUs, so the directional hypothesis is rejected.

As a point of comparison, an additional independent samples t-test was performed

to determine if a significant difference existed in the means of overall institutional six-

year graduation rates of PWIs and HBCUs. The graduation rates for this question

included the institutional graduation rate of all students graduating from the institution.

The independent variable was still institution type, with PWIs and HBCUs as the two

different levels. The independent variable was coded (0 = PWI and 1 = HBCU). The

dependent variable was graduation rate. The number of schools in the sample was not

equal, with a disproportionate number of PWIs (n = 512) when compared to HBCUs (n =

16). There were eight fewer PWIs included in this analysis due to the institutions not

reporting their overall six-year graduation rates via IPEDS. The table below shows

sample means and standard deviations for institutional six year graduation rates.

Table 26: Means and Standard Deviations of Institutional Six Year Graduation Rates

Institution type	N	Six Year Graduation Rate	
		$\underline{M}$	$\underline{SD}$
PWI	512	55.24	16.64
HBCU	16	36.44	17.01

When comparing overall graduation rates and African American graduation rates, the African American students graduated at lower percentages from PWIs (M = 43.21) than the entire population of PWI graduates (M = 55.24). Conversely, African American students graduated at higher rates from HBCUs (M = 36.63) compared to all students who graduated from HBCUs (M = 36.44). The independent samples t-test revealed a significant difference in institutional graduation rates by institution type, $t(1,526) = 4.45$, $p = .000$. Cohen's $d = .388$, indicating a small effect size. This finding indicated that while there was not a significant difference in the six year graduation rates of African American students graduating from PWIs and HBCUs, there is a significant difference in the overall institutional graduation rates for all students graduating from PWIs and HBCUs, with a significantly higher number of students graduating from PWIs.

Summary of Chapter IV

The goal of this chapter was to display the results of the study using descriptive and inferential statistics to answer research questions one through four. For this study, data was obtained from NSSE survey respondents from the Center for Postsecondary Research at Indiana University and institutional graduation rates from the Integrated Postsecondary Data Education System.

Overall characteristics of the NSSE data indicated a total of 2205 respondents, which included 53.4% from PWIs and 46.6% from HBCUs. The sample was overwhelmingly female (77%) and consisted of mostly full-time students (82%). The greatest percentage of students (31.5%) attended Carnegie Master's Colleges and Universities – Larger institutions. From the IPEDS data examined, 536 institutions were

used, of which 520 were PWIs and 16 were HBCUs, all of whom participated in the NSSE survey in 2007.

Each research question examined in the study examined the effect of institution type and the relationship between student background variables, NSSE benchmark scores, and/or institutional African American graduation rates. Research question one sought to examine if differences existed in student background variables when taking institution type into account. Research question one treated institution type as the independent variable and background variables mother's level of education, father's level of education, sex, enrollment status, and grade point average as the dependent variables. Independent samples t-tests revealed no significant difference in means by institution type for mother and father's level of education, but a significant difference was found for grade point average, $p<.05$. A significant relationship was found for institution type and sex, but not for institution type and enrollment status when performing chi-square analyses.

Research question two examined whether student background variables, including institution type, had a predictive relationship with each NSSE benchmark of effective educational practice. Research question two was analyzed using multiple regression. Five separate regression analyses were performed using each of the NSSE benchmarks as the dependent variables and student background variables (institution type, mother's level of education, father's level of education, enrollment status, sex, grade point average) were entered in each equation as the independent variables. All analyses revealed significant predictive relationships with each benchmark ($p<.05$). Level of Academic Challenge was found to be significantly predicted by enrollment status and grade point

126

average. Active and Collaborative Learning was found to be significantly predicted by institution type, enrollment status, and grade point average. Student-Faculty Interaction was found to be significantly predicted by institution type, enrollment status, sex, and grade point average. Enriching Educational Experiences was found to be significantly predicted by institution type, mother's level of education, enrollment status, and grade point average. Supportive Campus Environment was found to be significantly predicted by institution type, father's level of education, sex, and grade point average.

Research question three sought to examine if there were differences in NSSE benchmark scores by institution type. Research question three utilized MANOVA with the independent variable institution type and NSSE benchmark scores as the dependent variables. Results indicated that significant differences at $p<.05$ existed by institution type for four benchmarks: Active and Collaborative Learning, Student-Faculty Interaction, Enriching Educational Experiences, and Supportive Campus Environment. No significant difference was indicated for Level of Academic Challenge.

Research question four examined if African American six-year graduation rates differed according to institution type. Research question four was performed using an independent samples t-test. Institution type served as the independent variable and graduation rate was the dependent variable. No significant difference was found in six-year institutional graduation rates by institution type. Table 27 provides a summary of the research questions, procedure used, and if a significant relationship was detected.

127

Table 27: Summary of Research Questions, Procedures, and Significance Found Overall

Research Question	Procedure	Significance Found
1. Are there significant differences by institution type among African American student background variables (mother's level of education, father's level of education, grade point average, sex, enrollment status)?	Independent t-tests, chi-square tests	Yes; grade point average had a significant difference on the independent variable institution type. Sex was related to institution type.
2. Is there a significant relationship between student background variables (institution type, mother's level of education, father's level of education, grade point average, sex, enrollment status) and NSSE benchmark scores (Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Education Experiences, and Supportive Campus Environment) of African American students?	Multiple Regression	Yes; Level of Academic Challenge was significantly predicted by enrollment status and grade point average (GPA), Active and Collaborative Learning was significantly predicted by institution type, enrollment status, and GPA, Student-Faculty Interaction was significantly predicted by institution type, enrollment status, sex, and GPA, Enriching Educational Experiences was significantly predicted by institution type, mother's level of education, enrollment status, and GPA, and Supportive Campus Environment was significantly predicted by institution type, father's level of education, sex, and GPA.

3. Are there significant differences by institution type (PWI and HBCU) among African American students on the five NSSE benchmark scores of effective educational practice (Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Education Experiences, and Supportive Campus Environment)?	MANOVA	Yes; significant differences on the independent variable institution type existed for Active and Collaborative Learning, Student-Faculty Interaction, Enriching Educational Experiences, and Supportive Campus Environment.
4. Is there a significant difference in institutional African American graduation rates between students who attend Predominately White Institutions (PWIs) and those that attend Historically Black College and Universities (HBCUs)?	Independent t-test	None found

CHAPTER V

DISCUSSION, IMPLICATIONS, AND LIMITATIONS

Introduction

This dissertation examined the relationship between institution type and student

engagement for African American college seniors, when taking into account background

and social factors. This chapter discusses the results of the study from quantitative

methods performed on data obtained from the National Survey of Student Engagement,

administered by the Center of Postsecondary Research at Indiana University, as well as

data obtained from the Integrated Postsecondary Education Data System online

institution database.

The study was guided by the four research questions introduced in Chapter I on

pages 7-8 and further stated in Chapter III on pages 69-71. This chapter will further

discuss the results of the study, as well as examine study limitations and implications for

future research regarding African American student engagement and persistence, as well

as use of the NSSE instrument in educational research.

Overview of Study

This study was conducted to examine differences in African American student

engagement through the lens of institution type. Few studies exist that measure the

influence of institutional context on the experiences of African American college

students (Strayhorn & DeVita, 2010). Various studies have pointed out the different

experiences African American students have while attending HBCUs (Freeman &

Thomas, 2002; Nettles, Thoeny, & Gosman, 1986). This study sought to examine

whether the reported differences in attending HBCUs as compared to attending PWIs

were associated with different levels of student engagement for African American

students, as well as different rates of persistence to graduation for this student group.

Student engagement has been defined by Kuh as the time and effort students

devote to activities that are empirically linked to desired outcomes of college and what

institutions do to induce students to participate in these activities (2001). Therefore, it

can be hypothesized that higher student engagement scores should lead to higher

persistence to graduation rates for institutions. The more time and energy a student puts

into college, the greater the gains the student will obtain as a result, with graduation from

the institution as the end goal of the student. For purposes of this study, the desired

outcome of college would be obtaining a bachelor's degree, or persistence to graduation.

Discussion of Study Findings

This study provided a portrait of African American senior students in 2007 who

were attending PWIs and HBCUs. Additionally, it allowed the researcher to closely

examine their self-reported engagement levels to analyze their student experiences at

their individual institutions.

The major purpose of the study was to examine the effect of institution type on

African American background variables, student engagement, and persistence to

graduation rates. Overall, it was found that institution type does have an effect on student

engagement and persistence. The effect on persistence is evident when race is not taken into account. However, when race is taken into account, institution type has no effect on persistence.

Student Background Variables

When examining institution type and its relationship with African American student background variables, it was found that only means for cumulative college grade point average differed significantly by institution type. Specifically, seniors who attended HBCUs had significantly higher grade point averages than seniors who attended PWIs. This finding is consistent with Nettles, Thoeny, and Gosman's finding that Black students who attend HBCUs "benefit from a supportive social, cultural, and racial environment that enhances their successful adaptation to the academic demands of undergraduate life" (as cited by Pascarella & Terenzini, 1991, p. 382). It can be inferred that the supportive campus climate and resulting levels of social capital afforded to African American students at HBCUs may help facilitate an environment that is more conducive to learning than at a PWI.

No significant differences were found regarding mother's level of education, father's level of education, or enrollment status when comparing HBCU and PWI students. This finding is consistent with previous research that has found no significant difference in parental levels of education for students that attend HBCUs compared to PWIs (Kim, 2002). Sex was found to be related to institution type. The National Center for Education Statistics (2007) reported that there are more females than males at the postsecondary level; additionally, the gender gap between African American males and females has been found to be most pronounced than any other race.

African American Student Engagement

African American student engagement was examined in two different ways; one method examined whether engagement was predicted by student background variables, which included institution type, and the second method examined engagement to determine if there were differences in student engagement levels by institution type. Engagement was measured according to five different dimensions, or benchmarks, derived from the NSSE survey.

Each of the scores on the five NSSE benchmarks of effective educational practice (Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Educational Experiences, and Supportive Campus Environment) were found to be significantly predicted by at least one student background variable when performing multiple regression. The background variables examined included institution type, mother's level of education, father's level of education, grade point average, sex, and enrollment status. Overall, every benchmark was significantly predicted by grade point average, leading the researcher to believe higher student grade point averages are associated with higher levels of student engagement.

Level of Academic Challenge was significantly predicted by enrollment status and grade point average. This benchmark measures activities related to time spent preparing for class, level of academic rigor of classes with regard to the amount of reading and writing, and institutional expectations for academic performance. This finding is not surprising, given that students who are enrolled full time and who have higher grade point averages can be expected to have spent more time preparing for class

and meeting institutional expectations for performances, as evidenced by their higher grade point averages.

Active and Collaborative Learning was significantly predicted by institution type, enrollment status, and grade point average, meaning that students who attended HBCUs, enrolled full time, and had higher grade point averages were more likely to have higher engagement scores on this benchmark. The Active and Collaborative Learning benchmark measures classroom participation and activities, learning outside of the classroom, collaborating with peers, and amounts of tutoring and community-based projects completed. Findings indicated that the type of institution a student attends has a significant amount of influence on classroom activities and out of classroom academic experiences. Additionally, the course load of the student (full or part time) also is significant in determining how engaged a student will be in this aspect of learning, given that the more courses a student is enrolled in, the greater the likelihood that the student will be presented with active and collaborative learning opportunities. In a cross-sectional regression study, Fuller, Wilson, and Tobin also found grade point average was a significant predictor of Active and Collaborative Learning scores for all seniors NSSE respondents (2011).

Student-Faculty Interaction was significantly predicted by institution type, enrollment status, sex, and grade point average. This finding means students who attended HBCUs full time, were female, and had higher grade point averages were likely to have higher Student-Faculty Interaction scores. Parental education levels had no association with this benchmark. The benchmark measured time spent discussing coursework with instructors, working with faculty members on projects other than

coursework, and timeliness in being given feedback on assignments. This finding is consistent with Cuyjet's findings that African American men are more reluctant to ask for assistance from professors (2006). The finding also supports previous findings that cultural capital exists at HBCUs in the form of student-faculty mentoring in an effort to assist student in persisting to graduation (Palmer & Gasman, 2008). Once again, the course load of the student (full or part time) is significant in determining how engaged a student will be in interacting with faculty members, given that the more courses a student is enrollment in, the greater the likelihood that the student will be presented with opportunities for interaction. Those students with higher grade point averages may have higher grades as they are more likely to ask for assistance and clarification with their assignments in order to perform at consistently higher levels.

Enriching Educational Experiences was significantly predicted by institution type, mother's level of education, enrollment status, and grade point average. Specifically, this benchmark measured complementary learning opportunities outside of the classroom, such as the extent of interaction with students other than one's own race and ethnicity or who hold different political or religious beliefs, use of technology to complete assignments, and participation in extracurricular activities, community service, and internships. The findings can be translated to mean that students who attend HBCUs, whose mothers have high levels of education attainment, enroll full time, and have high grade point averages are more likely to have higher Enriching Educational Experiences scores. While the relationships with institution type, enrollment status, and grade point average in relation to benchmark scores have previously been examined, the significance of the mother's level of education has not. This finding is surprising, as no previous

research pointed to the effect of mother's education level on this benchmark or in particular, student use of technology, interaction with others unlike them, and participation in extracurricular activities, community service, or internships. While there is no particular research related to mother's level of education and this benchmark, Melius has found that parents' education is positively associated with students' extracurricular involvement (2011).

Supportive Campus Environment was significantly predicted by institution type, father's level of education, sex, and grade point average. This benchmark was measured as perceptions regarding the campus environment about academic and non-academic support, providing social support, and the quality of relationships with other students, faculty, and administrative personnel. Female students who attended HBCUs and had higher grade point averages were more likely to have higher Supportive Campus Environment scores. This finding is consistent with previous findings regarding campus climate for African American students. Fleming noted that Black students encounter a "crisis in social adjustment" when arriving at PWIs (1984, p. 163). Black students often have a difficult time adjusting on predominately White campuses and have to reconcile their Black identity within the environmental context (Smith, 1981). Fleming also noted that Black men were negatively affected by interracial environments (1986), showing consistency with the finding regarding gender and this benchmark. It makes sense that students who feel more supported by their environments are more likely to have higher grade point averages as well. Surprisingly, father's level of education was also found to be a significant predictor of Supportive Campus Environment scores, but was found to add to the regression model negatively, meaning that lower levels of father's education

136

are related to higher levels of engagement on this benchmark. This finding may be inferred to mean that students who do not receive social capital from their fathers as a result of their fathers' lower levels of education may need to acquire that social capital from the campus environment instead.

The benchmarks of effective educational practice were also examined through the context of institution type to determine if differences existed in benchmark scores for the different types of institutions. Using MANOVA, significant differences by institution type were discovered for African American students for Active and Collaborative Learning, Student-Faculty Interaction, Enriching Educational Experiences, and Supportive Campus Environment. For those four benchmarks, scores were significantly higher at HBCUs than at PWIs. This finding is consistent with previous research regarding African American student engagement. HBCUs and other minority serving institutions (MSIs) have been found to have higher than predicted scores on the NSSE survey when engaging their students in purposefully effective educational practices (Kuh, Kinzie, Schuh, & Whitt, 2005). This finding was attributed to the environments at MSIs which were found to provide higher levels of student-faculty interaction, supportive academic and social campus environment, and a network of more intrusive engagement policies and practices when compared to other types of institutions (Kuh, et. al., 2005). Seifert, Drummond, and Pascarella found African American students at HBCUs reported significantly greater levels of non-classroom interactions with faculty, faculty interest in teaching and student development, number of essay exams, instructor feedback, scholarly and intellectual emphasis, and quality of interactions with other students (2006), all of which can lead to higher student engagement scores. Conversely, negative gains in

African American student engagement scores have been found for students who attend PWIs due to perceived sociocultural challenges (Guiffrida & Douthit, 2010).

No significant differences were detected for Level of Academic Challenge. While previous research points out African American students are more engaged at HBCUs, the exact dimensions of engagement are not clear. As such, it is difficult for the researcher to determine why Level of Academic Challenge scores are not significantly different by institution type.

African American Graduation Rates

African American six year graduation rates were also examined through the context of institution type. The mean scores of African American graduation rates from all PWIs and HBCUs who participated in the 2007 NSSE were compared to determine if any differences existed. No significant differences were found for African American graduation rates by institution type. This finding was somewhat surprising to the researcher. Given the amount of literature that examines the benefits of attending HBCUs, it was hypothesized that the benefits of attending an HBCU would lead to higher graduation rates for students. Freeman and Thomas pointed out that many studies have found that this institution type offers better opportunities for learning and ultimately success for African American students than PWIs (2002). However, it does not appear from the results of this study that success is measured for these particular institutions as higher graduation rates from HBCUs. An explanation for this finding may be due to the disproportionate numbers of graduation rates being compared (HBCU n = 16, PWI n = 520).

While it was not addressed as part of the research question examining African American graduation rates, overall graduation rates for all students, notwithstanding race/ethnicity were compared. The results from this analysis indicated that students from PWIs graduated at significantly higher rates than students from HBCUs. Knapp, Kelly-Reid, and Ginder pointed out that national persistence to graduation rates of first-time, full-time students beginning in 2001 were found to be 59.4% for White students and 40.5% for Black students (2009). This statistic may help explain some of the variation in graduation rates in this study, given that White students comprise most of the student population at the PWIs and Black students comprise most of the population at the HBCUs. From a stakeholder point of view, this finding may add to the discussion calling for the abolition of HBCUs due to their perceived lack of academic rigor compared with other institution types (Palmer, 2010). This lack of academic rigor is evidenced in the findings that show that HBCUs are not graduating their students at comparable rates with PWIs. Another explanation for this finding may be once again be due to the disproportionate numbers of graduation rates being compared (HBCU $n = 16$, PWI $n = 512$). Further research should be conducted to determine what prevents HBCUs from graduating more African American students when they have been found to be more engaged.

Implications for Research

This study has important implications for student engagement and student persistence to graduation policies and practices. Knowing that students with higher cumulative grade point averages are more engaged can provide institutions with the knowledge to admit and retain more academically prepared students, and provide

academic intervention methods for those that may be underprepared. The areas of student engagement and student persistence to graduation are important topics for college administrators who wish to discover the reasons why students at their institutions are able to succeed academically and later graduate from the institution. This research can contribute to existing theories of student persistence as it included factors related to student persistence and their relationship to student engagement. This study only examined African American students and as such adds to the engagement literature by singling out one specific subgroup's experiences.

The study used the environmental factor of institution type to provide a background from which to examine engagement. Overall, results found that students from HBCUs are more engaged than those at PWIs. PWIs can use this information to create engagement programs for African American students and look to HBCUs for viable examples of successful programs and activities. Few national studies have compared the student engagement levels of African American students from PWIs and HBCUs, so this study provides a basis with which to examine differences in engagement by institution type. Further study can continue to look at the differences in engagement by institution types to determine how this variable can be manipulated to engage students on campuses.

Areas for Future Research

The researcher originally attempted to gain student level data from individual institutions to examine if there was any correlation in student self-reported engagement levels and graduation rates. However, these data were not available to the researcher. It would be helpful for institutional persistence planning to determine individual factors

such as parental education, gender, race, grade point average, and enrollment status that may lead to persistence to graduation, rather than only being able to hypothesize engagement being related to institutional graduation rates. Allowing the researcher to track individual engagement scores and enrollment records at specific schools would allow for a more concrete measure of whether engagement can predict persistence to graduation. Future studies should be conducted at the student level to examine the relationship between engagement and persistence to graduation using data from individual institutions.

While this study specifically examined seniors, further studies should examine different enrollment classifications to gain a more robust picture of student engagement. Examining senior student engagement provided a snapshot of student engagement toward the end of one's undergraduate career, but did not provide any information regarding how engagement may have changed over time. The NSSE surveys both freshman and senior level students, so future studies may explore the ways in which engagement may change over time across the five benchmarks. However, the NSSE does not provide institutions with a guarantee of sampling the same freshmen later during their senior year. Other measures of student engagement and student engagement instruments should be explored that can provide repeated samples to be able to track engagement levels by individual students longitudinally to fully understand the impact of institutional engagement efforts. This type of research may provide institutions with an empirical indicator of how their programmatic efforts are making an impact across the course of the undergraduate career for their students.

Comparing engagement across student enrollment classification levels will add depth to the research, but further research would be helpful to compare the experiences of different types of student subgroups. This study used only African American students as the sample population. Further research comparing the experiences of African American students to White students may be able to provide a more accurate picture of the experiences of African American students. Comparing African American and White students would be consistent with previous educational research that utilizes these two subgroups for analysis (Eimers, 2001; Kreysa, 2006; Perna & Titus, 2005; Price, Hyle, & Jordan, 2009; Roebuck & Murty, 1993; Zea, Reisen, Beil, and Caplan, 1997). Future studies may also examine the influence of student engagement measures with Latino students, given the influx of this student population into the higher education landscape (Fry, 2011). Additionally, the sample population may also have been compared to the total population of all students who participated in the NSSE, regardless of race to compare African American engagement to overall engagement for all students.

More research could be conducted regarding the significant findings of parental education and student engagement. It is unknown to the researcher why mother's level of education contributed significantly to Supportive Campus Environment benchmark or why father's level of education was found to significantly predict Enriching Educational Experiences. Combining a study of this type with a qualitative component may serve to further examine these significant findings. Additionally, broad research regarding the impact of parental education can be beneficial when determining institutional engagement and retention plans.

This study examined student engagement, but what is not inherent in this analysis is why students choose to become engaged or why they choose not to. Further research is needed to explore how the decision to become engaged is made and what factors have a significant impact in the decision, whether they are individual, social, or institutional factors.

The NSSE survey of student engagement contains 85 items related to the student undergraduate experience. Many of the items provided on the survey were not used by the researcher during this study. These items include, but are not limited to, participation in Greek organizations, place of residence, participation on an athletic team, major, and transfer student status. Future research should examine the relationship to these variables to student engagement and student persistence to graduation.

Lastly, the impact of institution type should continue to be examined in post-secondary educational research. The researcher was able to locate a number of articles regarding institution type, but it was somewhat difficult in searching for this research as type was not a prominent descriptor in many studies. This study used institution type as an independent variable in all of the research questions and was able to find significant findings as a result. Further research can continue to explore the relationship to student engagement and persistence through the lens of institution type. Researchers can make this distinction by describing the types of institutions that sample respondents originate from or through the use of institution type as a unit of analysis.

Recommendations for Institutional Practice

At the institutional level, it is important to share the findings of this study with student affairs professionals and with university administrators. Student affairs

professionals can utilize the findings to tailor quality programming and services to retain the African American students at their institutions. Engaging students early through programs such as welcome week and faculty and student meet-and-greets once students arrive on campuses can encourage engagement and support early. Findings from the study found that African American males were less likely to be engaged and feel supported on campuses, so student affairs professionals should work to provide interventions for this student group to provide support both in and out of the classroom through mentoring and peer advising programs to help both engage and retain these students. Cuyjet (2006) noted the presence of a variety of programs targeted to African American men on campuses, such as the Collegiate 100 and the Student African American Brotherhood.

Additionally, through knowing the factors that are related to higher student engagement scores for African American students, universities can be more purposeful to incorporate the findings into their campus-wide plan enrollment management strategies, thus hypothetically leading to higher persistence to graduation rates. In order for this to happen, institutions must make efforts for consistent collaboration between student affairs and academic affairs units. Examples include service-learning programming for course credit, residential living-learning communities, new student orientation, and first-year experience programming. This level of effort will allow institutions to focus on intentional programming to assist students throughout their undergraduate experience, while also allowing for clear goals and objectives with which to assess and measure progress. As a result, institutions will become better informed on how to engage and

retain their students, and African American students in particular in an effort to narrow the postsecondary achievement gap.

Administrators and admissions officers at historically Black colleges and universities will continue to have increasing pressures on them to graduate students. With financial aid cited most often as the determining factor for choosing to enroll at HBCUs, paired with the realization that these institutions continue to struggle financially, it will not become any easier to attract and keep students on their campuses without increased financial aid dollars (Freeman & Thomas, 2002; Cross & Slater, 2001). This study found that African American students at HBCUs were typically more engaged, but students from HBCUs graduated at lower rates than their counterparts at PWIs. From an institutional perspective, HBCUs can capitalize on marketing the positive engagement findings when recruiting students. This finding can be an asset to HBCU admissions personnel in attracting students to their campuses. Further research may find that the disconnect between student engagement and persistence to graduation at HBCUs may be due to external factors, such as lack of financial aid to continue at the institution or outside pressures from family or work. HBCU administrators must continue to work to determine why students' higher levels of engagement are not leading to higher graduation rates.

One telling finding of this study is the significant relationship found between grade point average and all five NSSE benchmarks of effective practice. Institutions should use this knowledge that students who have higher grade point averages are more likely to be engaged. As a result, policies and practices must take place early during the freshman year to ensure students are supported academically to help them achieve higher

grades. This support could include mentoring programs, smaller class sizes, cohort-based learning, living learning communities, and early alert warning systems. By solidifying one's academic record and study habits early on, it is expected that a greater likelihood exists for the student to keep a higher grade point average over the course of their career, leading to higher levels of student engagement, and a greater likelihood of graduating from the institution.

Recommendations can also be made for the Center for Postsecondary Research at Indiana University, which administers the NSSE survey. A small number of HBCUs ($n = 16$) participated in the 2007 survey. Efforts should be made to market the NSSE and the benefits of being a participating institution to HBCUs. This will allow a deeper level of analysis of HBCU students. Additionally, a question regarding family income level should be added to the survey. This will allow for analysis between student engagement levels and income.

Study Limitations

With any research study, limitations exist in regard to the data. Three main limitations were identified regarding this study. The main limitations include the survey design, restrictions due to the breakdown of the sample, and restrictions due to the survey instrument.

The validity of the study could be strengthened by adding a qualitative component. Tashakkori and Teddlie note that mixed method studies are beneficial in social science research to reach comprehensive answers to research questions (1998). Qualitative research would provide an added layer of understanding to the researcher when examining the significant findings that have no previous support in the literature.

Additionally, it will add richness to the data to help explore the ways in which students decide to become engaged or not. Due to the construction of the survey instrument, it was not possible to gather qualitative data from respondents, as the survey did not provide this option. Additionally, the data used was secondary data so it was not possible to add qualitative questions to the instrument, as the respondents had already completed the survey.

The composition of the sample also serves as a limitation in this study. The number of schools used in the HBCU sample ($n = 16$) may limit generalizability in applying the findings to a specific region of the country or specific type of HBCU. With a greater sample of schools, a greater number of student responses could be gained to increase power of the results. However, for purposes of this study, all HBCUs that participated in the NSSE were included in the data set.

It is assumed that the longer a student has been enrolled in college, the more likely he/she is to have higher levels of student engagement at the institution. Since college seniors were examined for this study, they may have presented with higher engagement scores than if freshmen engagement scores were examined. Additionally, this limitation could have affected the variance in student engagement and NSSE survey responses. As such, it can be inferred that the students in the sample are more successful due to their senior level status, as they have already made it to the point of their senior year, as opposed to others who may have stopped out or dropped out who were not included in the sample as a result.

Limitations also exist with using the NSSE as the instrument of choice. The NSSE is clear in its intent to measure student engagement in order to improve

institutional quality, not to predict student graduation. However, this study originally

sought to examine if NSSE benchmark scores were related to the likelihood of a student

persisting to graduation. The dataset provided by NSSE to the researcher did not include

any identifiable student information, therefore the researcher could not track the

institutions the students attended and whether or not the students graduated from their

institutions within six years. The need to link student engagement data to student

persistence to graduation data is important for institutional planning, but could not be

examined due to the nature of the survey instrument.

Additionally, while the literature review points out the importance of

attitude/motivational factors in student engagement and persistence to graduation, the

NSSE does not include direct items to measure this factor, so it was unable to be included

in the study. Due to the content of questions on the NSSE, economic factors and SES

were not able to be included as student background variables. This restriction provides a

limitation in the data that has previously found student SES and income to be significant

predictors of college persistence by Pascarella and Terenzini after controlling for race,

gender, and ethnicity (1993; 2005).

The NSSE was created in 1999 and since then has been used at institutions across

the country. However, as a somewhat recent instrument measuring the college student

experience, researchers have sought to examine the validity and reliability of the

instrument. Some researchers have argued against the NSSE's ability to accurately

measure student engagement. Gary Pike has argued that the NSSE benchmarks are too

broad in what they measure to be able to effectively make improvements at institutions.

Additionally, Pike argues that the NSSE is limited in that it does not focus on learning

148

outcomes, but only student experiences (2010). As such, he has previously conducted reliability analyses and advocated the use of scalelets instead of benchmarks to measure student engagement (Pike, 2006). LaNasa, Cabrera, and Trangsrud have also examined the construct validity of the NSSE and determined the benchmarks would be better served as being changed into eight engagement dimensions to be able to get more use from the survey data (2009). Similarly, Carle, Jaffee, Vaughan, and Eder have also advocated the use of different engagement scales to replace the NSSE benchmarks (2009). Using cross-sectional analysis of multiple cohorts of NSSE samples, Gordon, Ludlum, and Hoey determined the NSSE had just minimal power in predicting freshman retention, grade point average, pursuit of graduate education, and employment outcome upon commencement/degree conferral (2008). Conversely, several articles and reports released by NSSE have pointed to the strong psychometric properties of the NSSE in assessing student engagement (Finley, 2011; Kuh, 2001; Kuh, 2009a; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2007; National Survey of Student Engagement, 2010a).

Michael Olivas has argued that the majority of the scholarship examining the NSSE's psychometric properties has been conducted by researchers such as George Kuh who are proponents of the NSSE and researchers at the Center for Postsecondary Education at Indiana University, and as such, critical scholarship regarding the survey's reliability and validity is lacking (2011). Some research has been conducted pointing to the lack of validity and reliability of the survey instrument (Campbell & Cabrera, 2011; Dowd, Sawatzky, & Korn, 2011; Porter, 2011). As a result, a clear determination of the survey's validity and reliability cannot be made, thus creating a limitation for this study.

149

By choosing the NSSE as the survey instrument for this study, the researcher was not able to collect primary source data, but rather used the secondary data, which provided some limitations. As a result, the data or questions on the survey could not be manipulated. This provided the researcher with challenges, as attitude/motivational factors and SES and income factors were not able to be included in the study, whereas they were found to be significant predictors of student engagement and persistence to graduation in the literature review. Additionally, individual institutions where the students attended were not identified in the data set, which prevented the researcher from comparing institutional responses to the respective institutional graduation rates.

Conclusion

This dissertation examined differences in student engagement of African American senior college students by institution type. Student engagement is an important area of higher education research, as it can be hypothesized that higher levels of student engagement can lead to higher institutional persistence to graduation rates. As noted in Chapter I, almost a quarter of students entering four-year institutions leave at the end of their first year (Tinto, 1993). This statement is further corroborated by figures from the American College Testing Program, which found that only 55.9% of first year students at two-year college persist to the second year, while 73.9% of first year students at public four-year institutions persist to the second year (American College Testing, 2010). Additionally, this study was significant in helping to determine potential explanations for the existing achievement gap in bachelor's degree attainment between White and Black Americans. The U.S. Census Bureau notes that in 2007, 29.1% of White Americans held

at least a bachelor's degree, while only 17.3% of Black Americans held a bachelor's

degree (U.S. Census Bureau, 2007).

This study helps to fill a gap in the research, as there are few studies that measure

student engagement and student outcomes (Gordon, Lundlum, & Hoey, 2008). Further,

the study filled another gap by comparing engagement through the context of institution

type. Additionally, the study allowed for comparisons between PWIs and HBCUs,

noting that student engagement scores of African American students are significantly

higher at HBCUs, helping to dispel critics who have questioned the worth and

accountability of HBCUs in recent years (Ashley, 2007). However, this research study

also found that while there was no significant difference in the rates of African American

graduates by institution type, PWIs graduate their entire student populations, regardless

of race, at a significantly higher rate than HBCUs.

Variables examined in the study included institution type, student background

variables, NSSE benchmark scores, and institutional graduation rates. Findings indicated

that grade point average was significantly higher for students at HBCUs. Four of the five

benchmarks of effective educational practice were found to be significantly higher for

students who attended HBCUs. Additionally, each NSSE benchmark score was found to

have predictive validity with at least two of the student background variables, but no

consistency was found between the types of variables that predicted the benchmarks other

than grade point average. Additionally, variations were found within the entire sample of

African American students. No significant difference was found in the six year

graduation rates for African American students when comparing PWIs and HBCUs.

Additional research should continue to be conducted regarding differences in student experiences by institution type. The experiences of African American students should continue to be studied, as it has been found that they enter the higher education landscape with different backgrounds and have different experiences while on college campuses as compared to their White counterparts. By continuing to study African American student engagement and predictors of persistence, knowledge will continue to be created to help break down the gap in educational degree attainment between White and Black students in the United States.

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154

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164

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APPENDIX

Appendix A – 2007 National Survey of Student Engagement

National Survey of Student Engagement 2007
The College Student Report

1 In your experience at your institution during the current school year, about how often have you done each of the following? Mark your answers in the boxes. Examples: ☒ or ▣

	Very often	Often	Some-times	Never
a. Asked questions in class or contributed to class discussions	☐	☐	☐	☐
b. Made a class presentation	☐	☐	☐	☐
c. Prepared two or more drafts of a paper or assignment before turning it in	☐	☐	☐	☐
d. Worked on a paper or project that required integrating ideas or information from various sources	☐	☐	☐	☐
e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	☐	☐	☐	☐
f. Come to class without completing readings or assignments	☐	☐	☐	☐
g. Worked with other students on projects **during class**	☐	☐	☐	☐
h. Worked with classmates **outside of class** to prepare class assignments	☐	☐	☐	☐
i. Put together ideas or concepts from different courses when completing assignments or during class discussions	☐	☐	☐	☐
j. Tutored or taught other students (paid or voluntary)	☐	☐	☐	☐
k. Participated in a community-based project (e.g., service learning) as part of a regular course	☐	☐	☐	☐
l. Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment	☐	☐	☐	☐
m. Used e-mail to communicate with an instructor	☐	☐	☐	☐
n. Discussed grades or assignments with an instructor	☐	☐	☐	☐
o. Talked about career plans with a faculty member or advisor	☐	☐	☐	☐
p. Discussed ideas from your readings or classes with faculty members outside of class	☐	☐	☐	☐
q. Received prompt written or oral feedback from faculty on your academic performance	☐	☐	☐	☐

	Very often	Often	Some-times	Never
r. Worked harder than you thought you could to meet an instructor's standards or expectations	☐	☐	☐	☐
s. Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)	☐	☐	☐	☐
t. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	☐	☐	☐	☐
u. Had serious conversations with students of a different race or ethnicity than your own	☐	☐	☐	☐
v. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	☐	☐	☐	☐

2 During the current school year, how much has your coursework emphasized the following mental activities?

	Very much	Quite a bit	Some	Very little
a. **Memorizing** facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	☐	☐	☐	☐
b. **Analyzing** the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components	☐	☐	☐	☐
c. **Synthesizing** and organizing ideas, information, or experiences into new, more complex interpretations and relationships	☐	☐	☐	☐
d. **Making judgments** about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions	☐	☐	☐	☐
e. **Applying** theories or concepts to practical problems or in new situations	☐	☐	☐	☐

3 **During the current *school year,* about how much reading and writing have you done?**

a. Number of assigned textbooks, books, or book-length packs of course readings

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

b. Number of books read on your own (not assigned) for personal enjoyment or academic enrichment

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

c. Number of written papers or reports of **20 pages or more**

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

d. Number of written papers or reports **between 5 and 19 pages**

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

e. Number of written papers or reports of **fewer than 5 pages**

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

4 **In a *typical week,* how many homework problem sets do you complete?**

	None	1-2	3-4	5-6	More than 6
a. Number of problem sets that take you **more** than an hour to complete	☐	☐	☐	☐	☐
b. Number of problem sets that take you **less** than an hour to complete	☐	☐	☐	☐	☐

5 **Mark the box that best represents the extent to which your examinations during the current school year have challenged you to do your best work.**

Very little ▼ ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 Very much

6 **During the current school year, about how often have you done each of the following?**

	Very often	Often	Some-times	Never
a. Attended an art exhibit, play, dance, music, theater, or other performance	☐	☐	☐	☐
b. Exercised or participated in physical fitness activities	☐	☐	☐	☐
c. Participated in activities to enhance your spirituality (worship, meditation, prayer, etc.)	☐	☐	☐	☐
d. Examined the strengths and weaknesses of your own views on a topic or issue	☐	☐	☐	☐
e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	☐	☐	☐	☐
f. Learned something that changed the way you understand an issue or concept	☐	☐	☐	☐

7 **Which of the following have you done or do you plan to do before you graduate from your institution?**

	Done	Plan to do	Do not plan to do	Have not decided
a. Practicum, internship, field experience, co-op experience, or clinical assignment	☐	☐	☐	☐
b. Community service or volunteer work	☐	☐	☐	☐
c. Participate in a learning community or some other formal program where groups of students take two or more classes together	☐	☐	☐	☐
d. Work on a research project with a faculty member outside of course or program requirements	☐	☐	☐	☐
e. Foreign language coursework	☐	☐	☐	☐
f. Study abroad	☐	☐	☐	☐
g. Independent study or self-designed major	☐	☐	☐	☐
h. Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.)	☐	☐	☐	☐

8 **Mark the box that best represents the quality of your relationships with people at your institution.**

a. Relationships with **other students**

Unfriendly, Unsupportive, Sense of alienation ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 Friendly, Supportive, Sense of belonging

b. Relationships with **faculty members**

Unavailable, Unhelpful, Unsympathetic ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 Available, Helpful, Sympathetic

c. Relationships with **administrative personnel and offices**

Unhelpful, Inconsiderate, Rigid ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 Helpful, Considerate, Flexible

9 **About how many hours do you spend in a typical 7-day week doing each of the following?**

a. Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)

☐ ☐ ☐ ☐ ☐ ☐ ☐
0 | 1-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 | More than 30
Hours per week

b. Working for pay **on campus**

☐ ☐ ☐ ☐ ☐ ☐ ☐
0 | 1-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 | More than 30
Hours per week

c. Working for pay **off campus**

☐ ☐ ☐ ☐ ☐ ☐ ☐
0 | 1-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 | More than 30
Hours per week

d. Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)

☐ ☐ ☐ ☐ ☐ ☐ ☐
0 | 1-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 | More than 30
Hours per week

e. Relaxing and socializing (watching TV, partying, etc.)

☐ ☐ ☐ ☐ ☐ ☐ ☐
0 | 1-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 | More than 30
Hours per week

f. Providing care for dependents living with you (parents, children, spouse, etc.)

☐ ☐ ☐ ☐ ☐ ☐ ☐
0 | 1-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 | More than 30
Hours per week

g. Commuting to class (driving, walking, etc.)

☐ ☐ ☐ ☐ ☐ ☐ ☐
0 | 1-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 | More than 30
Hours per week

10 **To what extent does your institution emphasize each of the following?**

	Very much	Quite a bit	Some	Very little
a. Spending significant amounts of time studying and on academic work	☐	☐	☐	☐
b. Providing the support you need to help you succeed academically	☐	☐	☐	☐
c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds	☐	☐	☐	☐
d. Helping you cope with your non-academic responsibilities (work, family, etc.)	☐	☐	☐	☐
e. Providing the support you need to thrive socially	☐	☐	☐	☐
f. Attending campus events and activities (special speakers, cultural performances, athletic events, etc.)	☐	☐	☐	☐
g. Using computers in academic work	☐	☐	☐	☐

11 **To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?**

	Very much	Quite a bit	Some	Very little
a. Acquiring a broad general education	☐	☐	☐	☐
b. Acquiring job or work-related knowledge and skills	☐	☐	☐	☐
c. Writing clearly and effectively	☐	☐	☐	☐
d. Speaking clearly and effectively	☐	☐	☐	☐
e. Thinking critically and analytically	☐	☐	☐	☐
f. Analyzing quantitative problems	☐	☐	☐	☐
g. Using computing and information technology	☐	☐	☐	☐
h. Working effectively with others	☐	☐	☐	☐
i. Voting in local, state, or national elections	☐	☐	☐	☐
j. Learning effectively on your own	☐	☐	☐	☐
k. Understanding yourself	☐	☐	☐	☐
l. Understanding people of other racial and ethnic backgrounds	☐	☐	☐	☐
m. Solving complex real-world problems	☐	☐	☐	☐
n. Developing a personal code of values and ethics	☐	☐	☐	☐
o. Contributing to the welfare of your community	☐	☐	☐	☐
p. Developing a deepened sense of spirituality	☐	☐	☐	☐

12 **Overall, how would you evaluate the quality of academic advising you have received at your institution?**

☐ Excellent
☐ Good
☐ Fair
☐ Poor

13 **How would you evaluate your entire educational experience at this institution?**

☐ Excellent
☐ Good
☐ Fair
☐ Poor

14 **If you could start over again, would you go to the *same institution* you are now attending?**

☐ Definitely yes
☐ Probably yes
☐ Probably no
☐ Definitely no

171

15 Write in your year of birth: [1][9][ ][ ]

16 Your sex:
☐ Male ☐ Female

17 Are you an international student or foreign national?
☐ Yes ☐ No

18 What is your racial or ethnic identification? (Mark only one.)
☐ American Indian or other Native American
☐ Asian, Asian American, or Pacific Islander
☐ Black or African American
☐ White (non-Hispanic)
☐ Mexican or Mexican American
☐ Puerto Rican
☐ Other Hispanic or Latino
☐ Multiracial
☐ Other
☐ I prefer not to respond

19 What is your current classification in college?
☐ Freshman/first-year   ☐ Senior
☐ Sophomore   ☐ Unclassified
☐ Junior

20 Did you begin college at your current institution or elsewhere?
☐ Started here ☐ Started elsewhere

21 Since graduating from high school, which of the following types of schools have you attended other than the one you are attending now? (Mark all that apply.)
☐ Vocational or technical school
☐ Community or junior college
☐ 4-year college other than this one
☐ None
☐ Other

22 Thinking about this current academic term, how would you characterize your enrollment?
☐ Full-time ☐ Less than full-time

23 Are you a member of a social fraternity or sorority?
☐ Yes ☐ No

24 Are you a student-athlete on a team sponsored by your institution's athletics department?
☐ Yes   ☐ No (Go to question 25.)

On what team(s) are you an athlete (e.g., football, swimming)? Please answer below:

25 What have most of your grades been up to now at this institution?
☐ A   ☐ B+   ☐ C+
☐ A-   ☐ B   ☐ C
       ☐ B-   ☐ C or lower

26 Which of the following best describes where you are living now while attending college?
☐ Dormitory or other campus housing (not fraternity/ sorority house)
☐ Residence (house, apartment, etc.) within **walking distance** of the institution
☐ Residence (house, apartment, etc.) within **driving distance** of the institution
☐ Fraternity or sorority house

27 What is the highest level of education that your parent(s) completed? (Mark one box per column.)

Father	Mother	
☐	☐	Did not finish high school
☐	☐	Graduated from high school
☐	☐	Attended college but did not complete degree
☐	☐	Completed an associate's degree (A.A., A.S., etc.)
☐	☐	Completed a bachelor's degree (B.A., B.S., etc.)
☐	☐	Completed a master's degree (M.A., M.S., etc.)
☐	☐	Completed a doctoral degree (Ph.D., J.D., M.D., etc.)

28 Please print your major(s) or your expected major(s).

a. Primary major (Print only one.):

b. If applicable, second major (not minor, concentration, etc.):

THANKS FOR SHARING YOUR VIEWS!

After completing the survey, please put it in the enclosed postage-paid envelope and deposit it in any U.S. Postal Service mailbox. Questions or comments? Contact the National Survey of Student Engagement, Indiana University, 1900 East Tenth Street, Eigenmann Hall Suite 419, Bloomington IN 47406-7512 or nsse@indiana.edu or www.nsse.iub.edu. Copyright © 2006 Indiana University.

Appendix B – National Survey of Student Engagement Benchmark Items

Level of Academic Challenge

1r. In your experience at your institution during the current school year, about how often have you worked harder than you thought you could to meet an instructor's standards or expectations?

2b. During the current school year, how much has your coursework emphasized analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components?

2c. During the current school year, how much has your coursework emphasized synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships?

2d . During the current school year, how much has your coursework emphasized making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions?

2e. During the current school year, how much has your coursework emphasized applying theories or concepts to practical problems or in new situations?

3a. During the current school year, about how much reading and writing have you done? Number of assigned textbooks, books, or book-length packs of course readings?

3c. During the current school year, about how much reading and writing have you done? Number of written papers or reports of 20 pages or more?

3d. During the current school year, about how much reading and writing have you done? Number of written papers or reports between 5 and 19 pages?

3e. During the current school year, about how much reading and writing have you done? Number of written papers or reports of fewer than 5 pages?

9a. About how many hours do you spend in a typical 7-day week preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities?

10a. To what extent does your institution emphasize spending significant amounts of time studying and on academic work?

Active and Collaborative Learning

1a. In your experiences at your institution during the current school year, about how often have you asked questions in class or contributed to class discussions?

1b. In your experiences at your institution during the current school year, about how often have you made a class presentation?

1g. In your experiences at your institution during the current school year, about how often have you worked with other students on projects during class?

1h. In your experiences at your institution during the current school year, about how often have you worked with classmates outside of class to prepare class assignments?

1j. In your experiences at your institution during the current school year, about how often have you tutored or taught other students (paid or voluntary)?

1k. In your experiences at your institution during the current school year, about how often have you participated in a community-based project (e.g., service learning) as part of a regular course?

1t. In your experiences at your institution during the current school year, about how often have you discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)?
Student-Faculty Interaction:

1n. In your experiences at your institution during the current school year, about how often have you discussed grades or assignments with an instructor?

1o. In your experiences at your institution during the current school year, about how often have you talked about career plans with a faculty member or advisor?

1p. In your experiences at your institution during the current school year, about how often have you discussed ideas from your readings or classes with faculty members outside of class?

1q. In your experiences at your institution during the current school year, about how often have you received prompt written or oral feedback from faculty on your academic performance?

1s. In your experiences at your institution during the current school year, about how often have you worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)?

7d. Have you already or do you plan to work on a research project with a faculty member outside of course or program requirements before your graduate from your institution?

Enriching Educational Experiences

1l. In your experience at your institution during the current school year, about how often have you used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment?

1u. In your experience at your institution during the current school year, about how often have you had serious conversations with students of a different race or ethnicity other than your own?

1v. In your experience at your institution during the current school year, about how often have you had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values?

7a. Which of the following have you done or plan to do before you graduate from your institution (practicum, internship, field experience, co-op experience, or clinical assignment)?

7b. Which of the following have you done or plan to do before you graduate from your institution (community service or volunteer work)?

7c. Which of the following have you done or plan to do before you graduate from your institution (participate in a learning community or some other formal program where groups of students take two or more classes together)?

7e. Which of the following have you done or plan to do before you graduate from your institution (foreign language coursework)?

7f. Which of the following have you done or plan to do before you graduate from your institution (study abroad)?

7g. Which of the following have you done or plan to do before you graduate from your institution (independent study or self-designed major)?

7h. Which of the following have you done or plan to do before you graduate from your institution (culminating senior experience – capstone course, senior project or thesis, comprehensive exam, etc.)?

9d. About how many hours do you spend in a typical 7-day week participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)?

10c. To what extent does your institution emphasize encouraging contact among students from different economic, social, and racial or ethnic backgrounds?

Supportive Campus Environment

8a. Mark the box that best represents the quality of your relationships with other students.

8b. Mark the box that best represents the quality of your relationships with faculty members.

8c. Mark the box that best represents the quality of your relationships with administrative personnel and offices.

10b. To what extent does your institution emphasize providing the support you need to help you succeed academically?

10d. To what extent does your institution emphasize helping you cope with your non-academic responsibilities (work, family, etc.)?

10e. To what extent does your institution emphasize providing the support you need to thrive socially?

CURRICULUM VITAE

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EDUCATION: B.A., Communication
               University of Louisville

               M.Ed., College Student Personnel
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               Ph.D., Counseling and Personnel Services,
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               Dissertation: Comparing Engagement: Predicting African
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Associate Director of Finance
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PUBLICATIONS:

McAnulty, K., Gamm, C., & Crawford, F. (2010). Graduate orientation: Creating a campus-wide program in a decentralized environment. *NAGAP Perspectives 22*(4), 3-5.

Cuyjet, M. J. & Associates (2006). *African American men in college*. San Francisco: Jossey-Bass.

INVITED PRESENTATIONS:

Gamm, C. (2011). *Sisterhood: It's more than just a retreat.* Sigma Kappa Sorority College Officers Training School, Indianapolis, Indiana.

Gamm, C., Mardis, M., & Sullivan, D. (2011). *Behavioral intervention and threat assessment teams: What is the reasonable professional response?* ACPA Annual Conference, Baltimore, Maryland.

Gamm, C. (2010). Keynote speaker at Kentucky State Sigma Kappa Founders' Day, Western Kentucky University, Bowling Green, Kentucky.

Gamm, C., Mardis, M., & Sullivan, D. (2010). *Exploring the prevalence of behavioral intervention and threat assessment teams in institutions of higher education.* SACSA Annual Conference, Panama City, Florida.

Gamm, C. (2010). Guest lecturer for Department of Education, Leadership, Foundations, and Human Resource at the University of Louisville. Class: Organization and Administration of Higher Education taught by Dr. Fashaad Crawford. Topic: Research in higher education.

Gamm, C., Mardis, M., & Sullivan, D. (2010). *Reflecting about the recent rise of behavioral intervention and threat assessment teams.* NASPA Region III Summer Symposium, Ponte Vedra, Florida.

Gamm, C. & McAnulty, K. (2009). *Putting your best foot forward: Navigating the graduate admissions process*, College Personnel Association of Kentucky Careers in Student Affairs Conference, Louisville, Kentucky.

Gamm, C. & Mardis, M. (2009). *Responding to students in crisis and at-risk students: What is the reasonable professional response?* College Personnel Association of Kentucky Conference, Lexington, Kentucky.

Gamm, C. (2009, 2007). National Panhellenic Conference Something of Value facilitator.

Gamm, C. (2008). *Families matter.* Sigma Kappa Sorority National Convention, Indian Wells, California.

Gamm, C. (2008). Sigma Kappa Sorority Values Institute facilitator. Kentucky Wesleyan College, Owensboro, Kentucky.

Gamm, C. & McAnulty, K. (2007). *Demystifying international student admission.* College Personnel Association of Kentucky Conference, Lexington, Kentucky.

Gamm, C. (2006). *Community construction: Using orientation as a tool for leadership and community development.* Best Practices in Student Affairs-Poster Sessions, College Personnel Association of Kentucky Conference, Louisville, Kentucky

Gamm, C. (2006 – 2011). Sigma Kappa Sorority Advisors Academy facilitator.

Gamm, C. & Dunker, K. (2005). *FERPA & you at SCU.* Santa Clara University Student Orientation, Santa Clara, California.

Gamm, C. (2005-2011). Sigma Kappa Sorority College Officers Academy facilitator.

PROFESSIONAL DEVELOPMENT AND UNIVERSITY INVOLVEMENT:

Proposal Reviewer, 2010 American College Personnel Association Annual Conference, Baltimore, Maryland

University of Louisville Student Hearing Board, 2009 – present

University of Louisville Ombudsman Search Committee, 2009-2010

University of Louisville Student Care Team, 2009

University of Louisville Diversity Review Plan Committee, 2009 – present

University of Louisville Persistence to Graduation Committee, 2008 – present

University of Louisville Parking Appeals Committee, 2008 – 2010

University of Louisville Staff Senate Strategic Planning Committee, 2008

University of Louisville Staff Grievance Committee, 2007 – present; Committee Chair 2009 – present

University of Louisville College of Education and Human Development Alumni Council, 2007-2009

University of Louisville Staff Senate member, 2007 – present; Executive Committee member 2009 - present

PROFESSIONAL MEMBERSHIPS:

American College Personnel Association

American Association of College Registrars and Admissions Officers

College Personnel Association of Kentucky

National Association of Graduate Admissions Professionals