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The Relationship Between Academic Self-Concept and the Achievement Expectancies on the Academic Achievement and Persistence Rate of African-American Freshmen Students

Ira Falls III

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THE RELATIONSHIP BETWEEN ACADEMIC SELF-CONCEPT AND THE
ACHIEVEMENT EXPECTANCIES ON THE ACADEMIC ACHIEVEMENT
AND PERSISTENCE RATE
OF
AFRICAN-AMERICAN FRESHMEN STUDENTS

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Old Dominion University in Partial Fulfillment of the
Requirements for the Degree of
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ABSTRACT

THE RELATIONSHIP BETWEEN ACADEMIC SELF-CONCEPT AND THE ACHIEVEMENT EXPECTANCIES ON THE ACADEMIC ACHIEVEMENT OF AFRICAN-AMERICAN FRESHMEN STUDENTS

Ira Falls, III
Old Dominion University, 2001
Director: Dr. Dana D. Burnett

This study addressed the use of certain noncognitive variables and their relationship to the academic achievement and persistence rate of African-American freshmen students attending a large, predominately white institution. Academic achievement was defined as a student’s cumulative college grade point average and cumulative credits earned at the end of the freshmen year of study. Persistence rate was defined as the number of freshmen who enrolled compared to the percentage of those who re-enrolled for the Fall semester of their sophomore year. Moreover, the purpose of this study was to identify selected variables that are associated with increased African-American academic achievement and persistence and to impact policy that guides the development and implementation of student retention programs for these students.

The population for this study consisted of the 1996-97 and 1997-98 freshmen cohorts who entered a large, state-supported, southeastern, predominately white institution. The statistical analyses were conducted on data collected from 647 African-American undergraduate freshmen students who matriculated at the university during the Fall of 1996 and 1997. These cohorts were chosen because the 1996-1999 time frame was a period in which the Freshman Survey, a noncognitive assessment of students’ attitudes, behaviors, and expectations, did not experience any major revisions. The
The study was performed in two parts: (a) student responses were identified using the Freshmen Survey, an instrument designed to collect information about incoming students' attitudes, characteristics, behaviors, and expectations; (b) statistically significant relationships of noncognitive variables with respect to the amount of variance between them and the dependent variables of academic achievement and the persistence rate were then determined. The results indicated that academic self-concept was significantly related to cumulative college grade point average (GPA) and cumulative credits earned after the freshman year. Cumulative credits earned showed a higher correlation with academic self-concept than did cumulative college GPA. Discussion focused on the concept that African-American students benefit from programs that provide wholesome, positive environments. It also focused on the responsibility of colleges and universities who are serious about African-American student retention to provide these environments. Implications of the results were discussed as they relate to African-American graduate students and future research.
This dissertation is dedicated to my wife, Michele, my daughters, LaToya, Erin, and Ain, my son, Ade, and to my mom, Mrs. Jessie E. Falls
ACKNOWLEDGMENTS

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CHAPTER I

INTRODUCTION

During the past twenty years in higher education, increased attention has been given to student retention. There is a large number of students who drop out from the nation's colleges and universities. Staats, Butler, Partlo, and Heaphey (1991) and Tinto (1996) report that more than fifty percent of all students who enter college leave without a degree at the institution where they matriculated (Allen, 1997). Gose (1996) reports that the percentage of students who dropped out of college before their sophomore year reached a record high in 1994. With this in mind, university officials across the country have taken steps to examine factors that influence a student either to persist or to drop out of college.

The student retention model developed by Tinto (1975) is recognized as the cornerstone from which much of today's research on student retention has been developed. It is also probably the most widely tested model (Gillespie & Noble, 1992; Halpin, 1990; Munro, 1981; Noble, 1988; Pascarella & Terenzini, 1983; Terenzini & Pascarella, 1977). Tinto's work has differed from that of others (Spady, 1970) in that he offers a predictive rather than descriptive theory of a student's decision to separate voluntarily from an institution of higher learning. Tinto contends that an individual enters an institution with varying precollege traits that will determine that individual's level of commitment to his chosen institution. This level of commitment then leads that individual to interact in certain ways with the university environment which results in different levels of socialization and integration which, in turn, affects the ultimate goal of completing college.
Background of the Study

Tinto's model of student retention paralleled an earlier understanding of social separation in the suicide model of French sociologist Emile Durkheim (1951): that suicide (or withdrawal) occurs when an individual is unable to establish membership for himself within his society (university); this membership occurs largely by socialization and integration. Unable to do so, this member withdraws himself by committing suicide, a kind of suicide to which Durkheim refers to as egoistic.

Van Gennep (1960) identified three stages of transition from youth to adulthood: (1) separation from past associations; (2) interaction in new ways with the new group; and (3) becoming an established member of that group. Van Gennep, like Durkheim, suggests that an individual may depart society when he or she has trouble negotiating these steps. Spady's (1970) approach makes the assumption that the dropout process involves the "interaction between an individual student and his particular college environment in which his attributes are exposed to a variety of influences, expectations, and demands; this is referred to as 'normative congruence' " (p.77).

Rootman (1972) was one of the first researchers to apply Durkheim's model of voluntary withdrawal and Spady's normative congruence to an organization other than one in higher education. He referred to these organizations as total adult socializing organizations. Total adult socializing organizations include convents, seminaries, nursing schools, retraining programs, professional schools, and military academies. Rootman chose to study the entering class of 1972 at the U.S. Coast Guard Academy, New London, Connecticut, primarily because at that time it had the highest attrition rate of all
the service academies. Cadets at the Academy are subjected to relentless pressures to conform behaviorally and socially, as well as academically. The individual who does not fit must be able to resolve this dilemma by modifying his personal attributes, interests, and/or values. Not being able to do so results in a condition which may be expressed through physical or psychiatric symptoms. In his analysis, which is consistent with the Durkheim (1951) and Van Gennep (1960) models, Rootman determined that when an individual did not "fit" the group with which he was socialized, he was more likely to withdraw from the organization as a means of coping with the stress and strain of this incongruity.

**Noncognitive Variables**

There is an ongoing interest in the identification of student characteristics that are effective predictors of subsequent achievement outcomes. Research addressing these issues is a crucial component in the examination of withdrawal of an individual from an institution. Messick (1979) has analyzed the educational relevance to retention of student characteristics such as experiential background factors, affects, attitudes and beliefs, locus of control, interests, motives and needs, curiosity, temperament, social sensitivity, coping strategies, cognitive styles, creativity, values, academic self-concept, and achievement expectancies. He terms these attributes as noncognitive variables. The two most commonly studied noncognitive variables are academic self-concept and achievement expectancies (House, 1994). *Academic self-concept* is formed based on past judgements, perceptions and feedback, and is a person's conception of his or her own ability to learn the accepted types of academic behavior and performance in terms of school achievement.
(Gerardi, 1990; Shavelson & Bolus, 1982). It differs slightly from general self-concept which refers to the overall attitudes about physical appearance, social acceptance, and general skills and abilities (Byrne, 1986). Achievement expectancies are defined as a person’s belief in the relationship between actions and outcomes (Bandura, 1977; Schunk, 1984; Shell, 1987; Weisz & Stipek, 1982).

Achievement expectancies affect choice of behavior and persistence in chosen behaviors, thereby determining the amount of time and effort that will be expended in increasing behavioral skill (Shell, 1987). Gordon (1989) noted that students’ expectations regarding their academic performance explained significant proportions of variance in three measures of college grade performance—next test grade, final exam grade, and final course grade. Similarly, Vollmer (1986) found that achievement expectancies were significant predictors of exam grades in college social science courses even after considering the effects of prior student achievement, student goals, and student self-confidence. House (1996) found significant relationships between achievement expectancies, academic self-concept, and cumulative college GPA. Noncognitive variables also have been shown to be significant predictors of college attrition (Gerdes & Mallinkrodt, 1994). Moreover, achievement expectancies have been shown to predict grades in general education courses (Gordon, 1989), exam grades in general education courses (Holen & Newhouse, 1976), and overall grade performance (House, 1993a).

A study of this type is warranted because little is known about factors which influence the retention of African-American students on predominantly white campuses (Terenzini, Pascarella, Theophilides, & Lorang, 1983; Tinto, 1982; Stith & Russell, 1994).
Further, few studies have examined differences among African-American students (Allen, 1985; Fleming, 1981; Gurin & Epps, 1981). For instance, Rodriguez, Kaye, Stice, Frazier, and Brice's (1995) review of National Clearinghouse for Academic Advising, which included over 100 studies on the retention of African-American students, revealed none that specifically addressed intragroup diversity or differences among these students. Moreover, Sue and Sue (1990) observed that within racial-group differences often can be much larger than between racial-group differences (i.e., white versus African-American students; Kim & Sedlacek, 1995). As a result, within-group race comparisons will offer fertile possibilities for increased understanding of African-American student outcomes at Predominately White Institutions (PWIs). This approach allows for a more concerned examination of underlying factors that differentiate African-American students into “successful” and “unsuccessful” groups.

Messick (1979) categorized experiential background factors to include such items as work experience, educational history, and talents and accomplishments. Also included are demographic characteristics such as age, sex, socioeconomic status (SES), ethnic background, and bilingualism. Affects are positive and negative feelings that may be either specific to particular conditions, or they may be qualitatively differentiated feeling states, such as joy, surprise, fear, and anger (Izard, 1977, 1993). Educationally relevant affects include feelings about school, about learning, about subject matter, and about the self as a learner (Bloom, 1976). Attitudes involve positive and negative feelings about some social object or class of objects. An attitude is considered to entail an enduring predisposition to behave in a consistent way toward the object and hence, embodies pro versus con action.
tendencies (Rodgers & Sedlacek, 1979; Scott, 1968). Educationally relevant attitudes include orientations toward learning, school, subject matter, and self (Aiken, 1975; Bloom, 1976). Research has indicated that students' attitudes may be related to their achievement (House, 1985; Meece, Parsons, Kaczala, Goff, & Futterman, 1982); for African-American students, moreover, these variables are particularly salient (Astin, 1982; Bailey, 1978; Gurin, Miller, & Gurin, 1980).

A belief may be defined as an individual's expectancy that a particular relationship holds between an object and any other object, value or goal (Fishbein & Ajzen, 1975). A widely investigated educationally relevant dimension of belief is locus of control, which contrasts individuals who think of themselves as responsible for their own behavior (internals) against individuals who attribute responsibility to the force of circumstances or powerful others or luck (externals; Rotter, 1966; Stipek & Weisz, 1981). The educational importance of these generalized expectancies derives primarily from their implications for self-motivation (deCharms, 1976; Fanelli, 1976; Lefcourt, 1976), which Ramist (1981) and Arcuri, Daly, and Mercado (1982) claim is the sine qua non of persistence. Interests are agreeable feelings that accompany activities undertaken for their own sake. An interest induces us to seek out particular objects and activities (Rust, 1977). Interests serve to sustain self-determined activities not only in the absence of external reinforcement but often in the face of negative reinforcement; they are important examples of intrinsic motives (Deci, 1975).

Motives are impulses, emotions, or desires that impel one to action. Motives are rooted in needs. Prime among these needs is the need for achievement (Vidler, 1977),
which can be traced to Henry Murray's (1938) theory of social needs. Murray observed that individuals vary in their tendency or desire to do things well and to compete against a standard of excellence (Graham, 1994). Murray labeled this tendency the need to achieve (N-ach). *Curiosity* is usually described as an exploratory drive induced by experienced novelty or uncertainty. It is oriented towards achieving an understanding of the nature and causes of events and thereby equips the individual with knowledge (Vidler, 1977). *Temperament* is a general disposition influencing the behavioral style of an individual—his characteristic tempo, rhythmicity, adaptability, energy expenditure, mood, and focus of attention (Klein & Rennie, 1985; Thomas, Chess, & Birch, 1968). Temperament dimensions, which are generally bipolar, include such characteristics as confidence-inferiority, impulsiveness-deliberateness, cheerfulness-depression, objectivity-hypersensitivity, emotional maturity-immaturity, nervousness-composure, ascendance-timidity, friendliness-hostility, and tolerance-criticalness (Guilford, 1959; Rucker & King, 1985).

*Social sensitivity* is generally an endorsed educational objective of social development. Important components of social competence include empathy, interpersonal participation, social adroitness, leadership, persuasiveness, modeling, and tolerance (Weinstein, 1969; Weinstein & Hanson, 1975). A closely related notion is *coping*, which refers to preferred strategies for meeting the adaptive requirements of the environment, and for dealing with threat or stress (Lazarus, 1966; Lazarus & Folkman, 1984). *Cognitive styles* are information-processing consistencies reflective of underlying personality trends. They are stable attitudes, preferences, or habitual strategies.
determining a person’s typical modes of perceiving, remembering, thinking, and problem-solving (Messick, 1976, 1979). Cognitive styles influence how students learn (Jenkins, 1981; Witkin, Dyk, Faterson, Goodenough, & Karp, 1977). Witkin (1973) categorized cognitive styles as field-dependent (FD) and field-independent (FI). FD learners are attuned to learning and retaining social information; they enjoy social interaction and favor structure (Portis, Simpson, & Wieseman, 1993); they seek teacher direction and feedback and are affected by criticism; they benefit from instruction and problem-solving. FI learners, on the other hand, are task-oriented and set self-regulated goals. Self-regulated learners who use self-regulated learning strategies will have positive attributional patterns for both success and failure experiences. They tend to organize and analyze a plan independent of the teacher, and they also tend to take responsibility for their success outcomes by attributing them to ability, effort, and correct strategy and will attribute failure outcomes to causes that do not undermine conceptions of their personal competence (Trawick, 1988); they seek less guidance in problem solving than do FD learners. They prefer to work individually, and they are affected less by criticism than are FD learners (Piotrowski, 1984; Witkin, Moore, Goodenough, & Cox, 1977). FI learners prefer relatively impersonal situations and maintain greater psychological and personal space from others than do FD learners (Greene, 1976; Portis et al., 1993). It is unknown if intellectual or behavioral differences are involved in cognitive styles (Fritz, 1990; Sigel & Brodzinsky, 1977). It appears that cognitive styles remain fixed, even as maturational changes occur (Witkin, 1976). Research indicates that cognitive style is an important variable that can affect the educational process in several ways. It can affect students'
vocational choices and academic preferences (Highhouse & Doverspike, 1987; Koroluk, 1987), and it can also affect students’ academic performance (Canfield, 1988; Matthews, 1991; Wieseman, Portis, & Simpson, 1992a, 1992b, 1992c).

Creativity involves appraising the properties of the person himself or his talented accomplishments or creative products (Wallach, 1971; 1976). A value is “an enduring belief that a specific mode of conduct is personally or socially preferable to a converse mode of conduct” (Rokeach, 1973, pp. 5, 25). Values thus pervade the entire educational enterprise and are particularly significant in setting objectives or standards (Feather, 1975; Scher, 1987).

Cognitive Variables

Traditionally, academic achievement and persistence have been predicted from cognitive variables as criteria for academic success (Pantages & Creeden, 1978). Allen (1986) found high school GPA to be the strongest predictor of college grades for African-American students at both HBCUs and predominantly white institutions (PWIs). Other studies of high school GPA and ethnic background, however, have indicated that GPA provided one of the best indicators for white students’ college academic success, but was less effective in predicting academic performance for African-American students (Sedlacek & Adams-Gaston, 1989). Similarly, concerns arise in employing standardized entrance exams (Scholastic Aptitude Test [SAT] and American College Testing program [ACT]) for predicting African-American student academic performance. Breland (1978) and Wilson (1981) found that standardized tests failed to predict African-American students' college GPA.
Sternberg's (1985, 1986) triarchic theory suggests that there are three types of intelligence. Analytical intelligence addresses the internal world of the individual. It is the ability to interpret information in a hierarchical fashion in a well-defined and unchanging context. Synthetic intelligence concerns the external world of the individual. It involves the ability to interpret information in changing contexts, to be creative. According to Sternberg, standardized tests do not measure this type of intelligence. Systemic intelligence is the interface between these two worlds as it unfolds through experience. Systemic intelligence has to do with the ability to adapt to a changing environment -- the ability to handle and negotiate the system, to cope.

Sternberg (1996, 1996a) believes that standardized tests such as the SAT and ACT were never intended to measure synthetic and systemic intelligence because these tests tend to benefit those students who can quickly solve problems in the intermediate range of difficulty (Lohman, 1979), the kinds of planning, monitoring, and evaluating needed for good performance on these tests may differ in kind from those needed in everyday life (Sternberg & Wagner, 1993), and the tests disproportionately benefit those students who have had adequate to superior opportunities to apply their knowledge acquisition processes to various kinds of learning materials (Sternberg, 1986). Herrnstein and Murray (1994) concluded that African-Americans score lower than others on intelligence tests, but these results failed to consider other types of intelligence noted by Sternberg. Moreover, the preponderance of evidence, as reviewed by Nesbitt (1995), suggests that these differences are environmental rather than genetic in origin. The noncognitive variable research suggests that African-Americans tend to rely more on synthetic and systemic
intelligence to solve problems; therefore, employing only cognitive variables to predict African-American students' success is a questionable practice. The search for noncognitive predictors of African-American student retention is and should be an ongoing process (Tinto, 1996).

Demographic Variables

Several studies report a relationship of demographic factors such as socioeconomic status (SES), first-generation status, domicile status, and gender to achievement and persistence (Brown & Burkhardt, 1999; Woolford-Hunt, 1999). The literature that has addressed gender socialization and its impact on identity development has supported the finding of gender differences in the predictability of academic achievement (American Association of University Women, 1992; Bem, 1993; Brown & Gilligan, 1992; Good, Robertson, Fitzgerald, Stevens, & Bartles, 1996; McBride, 1990; Sadker, Sadker, & Long, 1993). This literature affirms that different socialization patterns often exist for females and males. For example, females often are socialized to put others before self and to attribute their academic successes to luck or chance. Conversely, men tend to be socialized to restrict emotion and to attribute their successes to autonomy and self-sufficiency (Ting & Robinson, 1998). These findings tend to hold true across ethnic lines.

The needs of first-generation students also have been well-documented in the literature (Gill, Booker, & Coleman, 1989). Who are first-generation students? First-generation students are defined as those whose parents' highest level of education is a high school diploma or less (Nunez & Cuccaro-Alamin, 1998). First-generation students are more likely to be African-American, Hispanic, and female than are their non-first
generation counterparts (Maack, 1998; Nunez et al., 1998), and they tend to have lower high school GPAs (Grayson, 1997; Riehl, 1994; Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996). Skinner and Richardson (1988) found that the first-generation students they studied never intended to go to college and questioned the value of education. Moreover, their families were generally not particularly supportive. These findings mirrored the findings of an earlier study by Piorkowski (1983) who indicated that urban first-generation college students felt guilty about the success they experienced while other family members suffered psychological casualties. Similarly, Billson and Terry (1982), Edamatsu (1998), Maack (1998), and Pratt and Skaggs (1989) all found less academic integration and feelings of academic rewards among first-generation college students compared to non-first generation college students.

A substantial body of research has addressed the educational influence of living on campus versus commuting to college. Anderson (1981), Astin (1982), Herndon (1984), Pace (1984), Pascarella, Bohr, Nora, Zusman, Desler, and Inman (1992), Pascarella and Terenzini (1991), Rest and Deemer (1986), Wilson, Anderson and Fleming (1987), and Zusman (1994) all report that resident students make significantly greater gains in persistence in college and degree attainment than do commuter students, even when controls are made for race, gender, and SES. However, in other studies, Blimling (1989) and Simono, Wachowiak, and Furr (1984) found no appreciable differences in the academic achievement of commuter and resident students. Although much is known about the noncognitive benefits of residing on campus versus commuting, their impact remains largely uncharted (Pascarella, Bohr, Nora, Zusman, & Inman, 1992).
Traditionally, it is believed that SES has a great impact on performance in a number of educational areas (Brodnick & Rees, 1995). The Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, and York (1966) report confirmed what educators thought they had known for years: that a strong relationship exists between all kinds of academic achievement variables and what had come to be known as socioeconomic status (White, 1982). According to Hossler, Braxton, and Coopersmith's (1989) review of the predisposition literature, family SES seems to influence students' disposition to attend college. In two separate studies, Hearn (1984, 1991) indicated that SES, along with other non-academic background characteristics, influences the types of institutions students are predisposed to attend. However, not all studies have found an important, direct relationship between SES and students' attendance plans. Jackson (1986), Leslie, Johnson, and Carlson (1977), and Yang (1981), for example, found that SES does not have a major impact on students' postsecondary plans. Many researchers also have determined the impact of SES on students' predisposition to attend a postsecondary institution is moderated by other factors. Tuttle (1981) found, for example, that the effect of SES is indirect, moderated by achievement and ability, and Stage and Hossler (1989) determined that the impact of SES on predisposition differs by gender. In another study, Bouse and Housler (1991) reported that parents' education, one aspect of SES, has only a low impact on white students' predisposition, while parental income, another aspect of SES, is not a significant predictor of white students' predispositions. Stage and Hossler (1989) also determined that neither parents' education nor income has a significant influence on predisposition for African-American males, and for African-American
females, parents' education has only a moderate influence. But in a study of a heterogenous sample of high school seniors, Gilmore (1978) found that, as parental income and education increase, the age at which students start to think about attending college decreases (Sharp, Johnson, Kurotsuchi, & Waltman, 1996).

Rationale

African-American students arrive on campus with developmental concerns similar to those of non-African-American students: adjustment to college, separation from family, development of autonomy, establishment of academic and intellectual competencies, creation of healthy sex roles and sexual identity, development of career/lifestyle plans, formulation of an integrated philosophy of life, and development of cultural awareness and esthetics (Allen, 1984; Chambliss, 1989; Chickering, 1969; Gold, Deming, & Stone, 1992; Pounds, 1987; Syrik, 1981; Wright, 1987; ). After researchers began examining the nontraditional and noncognitive factors that affect students' academic performance and college persistence (Ethington, 1990; Rowe & Smith, 1990; Tinto, 1986; Tracey & Sedlacek, 1985), early intervention programs began to emerge on campuses to assist African-American students in their adjustment to college life (Rowser, 1997). With constraints on financial resources and decreases in the traditional-age college freshman pool, institutions are striving to find ways to identify and retain potential nonpersisters (Ferguson, 1990; Gold, 1995; Seidman, 1996). Himelstein (1992) observes that "the key to providing assistance to attrition-prone students is early identification. Institutions that are most successful with this student group have proactively sought to identify them and deliver retention services within the first three weeks of a given semester" (p. 89).
Statement of the Problem

The purpose of this study will be to investigate the relationship between the noncognitive variables of academic self-concept and achievement expectancies and the conditions of the academic success and persistence rate of African-American freshmen students who are attending a large, urban state-supported, southeastern predominantly white institution (PWI). Academic self-concept and achievement expectancies were chosen because they are the two most commonly studied noncognitive variables, and they explain significant amounts of variance in measures of academic performance and persistence (Gordon, 1989; House, 1993a, 1994, 1996).

Relevance to Urban Studies

Over the past twenty years or so, the university under study has seen a considerable increase in its African-American student population. About one-quarter of the entering freshman class at this university is African-American. This increase appears to mirror national trends which show that by the year 2010, nearly a quarter of all college students under the age of 19 will be persons of color (Gregory, 2000). In addition, a good number of the African American students who attend this university come from many of the urban neighborhoods across the United States. Hence, there is a real need to determine what causes these students to drop out or to persist.

Research Questions

Academic self-concept and achievement expectancies data were collected from students at an urban, public university using that university’s Freshman Survey (Calliotte & Pickering, 1988). This instrument was designed to measure noncognitive variables...
related to academic success and persistence after the Freshman Year. The rationale for collecting academic self-concept and achievement expectancies data is as follows:

Academic self-concept is a student's conception of his or her own ability to learn accepted types of academic behavior and performance in terms of school achievement (Gerardi, 1990; Shavelson & Bolus, 1982). The Freshman Survey has a subsection of items, “Abilities and Traits,” which appears directly related to academic self-concept. In an unpublished study of the Freshman Survey involving factor analysis (Calliotte, Pickering, & Macera, 1998), many of these items loaded on a factor labeled “academic self-concept.” This subsection asks students to rate themselves on various academic abilities and traits using a *summated rating scale* (Kerlinger, 1986), sometimes called a Likert-type (1932) scale.

The Likert scale has been one of the most widely and successfully used techniques to measure attitudes (Ary, Jacobs, & Razavieh, 1990). One advantage of using a Likert-type scale is that it allows for greater intensity of expression as well as greater variance of response (Kerlinger, 1986). The scale in this “Abilities and Traits” subsection of the Freshman Survey is as follows: Top 10%; Above Average; Average; Below Average; and Lowest 10%. Each item is associated with a point value. The scores of those items are summed, yielding a student’s academic self-concept score. The item responses are positively stated; thus, a high point value would indicate high academic self-concept.

Achievement expectancies are defined as students’ beliefs that positive academic behaviors will lead to positive academic outcomes (Bandura, 1977; Schunk, 1984; Shell, 1987; Weisz & Stipek, 1982). The Freshman Survey (Calliotte & Pickering, 1988) has
another subsection, “Predictors about your Involvement with this University,” which also appears directly related to achievement expectancies. This subsection asks students to estimate the frequency that they might participate in various activities at the university in addition to their course work using the summated rating scale. The scale in this subsection of the Freshman Survey is as follows: Never; Occasionally; Often; and Very Often. The responses to these items are scored and summed, yielding a student’s achievement expectancies score.

In the same study involving factor analysis (Calliotte et al., 1998), the items from this subsection loaded on a factor labeled “Predictors about your Involvement.” As a result of this factor analysis, this researcher is comfortable that the subsections selected from the Freshman Survey accurately measure academic self-concept and achievement expectancies.

The primary research questions from which hypotheses have been developed are as follows:

1. Is there a significant relationship between the academic self-concept and cumulative college GPA of African-American freshmen students?

2. Is there a significant relationship between the academic self-concept and cumulative credits earned of African-American freshmen students?

3. Is there a significant relationship between the academic self-concept and persistence rate of African-American freshmen students?

4. Is there a significant relationship between the academic achievement expectancies and college GPA of African-American freshmen students?
5. Is there a significant relationship between the academic achievement expectancies and cumulative credits earned of African-American freshmen students?

6. Is there a significant relationship between the academic achievement expectancies and persistence rate of African-American freshmen students?

Significance of the Study

Much research on African-American student attrition has been conceptualized with white students serving as models or controls (Higher Education Research Institute, 1982). Moreover, many of these studies focus almost exclusively on the failure of African-American students (Rowley, 2000) or on the social dysfunction that is accompanied by academic success of African-American students (Ogbu, 1988). Previous findings have shown that African-American students' attrition rates to be five-to-eight times higher than those for white students on the same campuses (Allen, 1985). Despite a similar ancestry, there are sociodemographic differences among African-American students which impact their needs, perceptions, and behaviors (Jerome, 1980; Pounds, 1987). These conditions must be examined, particularly as they relate to African-American student retention (House, 1992; Sherman, Giles, & Williams-Green, 1994).

Limitations

This study will focus on student characteristics that may predict academic difficulty and attrition of African-American students attending a predominantly white institution (PWI), not the institutional characteristics. The results of this study, consequently, may or may not even be generalizable to African-American students attending a Historically Black College or University (HBCU). Gerardi (1990), for
example, observed that African-American students who attend HBCUs tend to hold higher self-concepts than do African-American students who attend PWIs. Caution should be used in comparing retention rates at different types of institutions because the retention rates at any college will be greatly affected by student characteristics more so than institutional type (Astin, Korn, & Green, 1987).
CHAPTER II
REVIEW OF THE RELATED LITERATURE

This study will examine the relationship between two noncognitive predictors and the academic success and retention of African American freshmen students at a predominantly white institution (PWI). Hence, the literature can be broken down into three major areas: (1) studies related to drop out and to stop out behavior; (2) studies related to African American Students at PWIs; and (3) studies related to noncognitive variables.

Almost one-quarter of the forty percent of the ethnic minorities attending college today are African-Americans (The Chronicle Almanac, 1998; Cohen & Brawer, 1982). There are many reasons why such students have found their way into college. Equally so, there are many reasons why these students have left. Defining dropout is no simple matter. Dropping out of college is a complex decision that is nearly always the result of a combination of factors. Each of these factors reflects the unique experience of that particular individual. Student retention at colleges and universities depends on academic, personal, and financial factors. In an analysis of over one hundred published studies, attrition of minorities was attributed largely to academic difficulties (Clewell & Ficklen, 1986). Over the years, however, many policies and a variety of programs have been initiated to ensure these students' success. Cohen and Brawer (1989) have found that it is likely that most students can succeed in college if they are required to supplement their courses with tutorials, learning labs, special counseling, peer-group assistance, and/or other aids. Many colleges today have enlarged their scope to prepare students to function...
in life in general. It is then that students can consider the moral, ethical, and spiritual implications of what they learn, and develop an appreciation for the aesthetic, political, and social sides of life (Baird & Harnett, 1980; Chickering & Reisser, 1993; Morrill, 1980; Warren, 1980).

Students of color, particularly African-Americans at PWIs, simply by virtue of their smaller numbers, are forced to make considerable cultural and social adjustments (Mow & Nettles, 1990). They find it more difficult to meet people with similar backgrounds and interests, and generally they encounter social isolation in addition to problems related to academics (Allen, 1988). These sets of problems are particularly apparent during the freshman year (Upcraft & Gardner, 1989). While there is little difference between expectations and actual experiences of African-American students relative to their courses, their academic performance and prospects for retention, relative to other students of color (Hispanics and Asians), remain much more problematic (Malaney & Shively, 1991).

In recent years, higher education institutions have established special admission programs for promising applicants who have failed to meet the minimum standards for regular admission (Sedlacek & White, 1986). The rationale for these programs has been that traditional admissions predictors are inadequate indicators of the future academic performance of nontraditional students. Previous studies which have attempted to predict the academic performance of the specially admitted usually have used high school grade point average (HSGPA), class rank, and standardized test scores as predictors (Houston, 1980; Nisbet, Ruble, & Schurr, 1982; Sedlacek & White, 1986). Nontraditional students,
though, appear to have abilities that can be assessed through noncognitive variables (Sedlacek, 1996).

Studies Related to Dropout and Stop out Behavior

The term "dropout" is one of the more frequently misused words in academia today. For quite a while, attrition and dropping out were terms that were used synonymously. Although student departure is a much studied phenomenon, there is still much that is unknown. The term dropout is used to describe all persons who leave college regardless of the reasons and conditions, but it has several distinguishable connotations. A dropout can be anyone who leaves college without receiving a degree, but this term should not include those students who transfer to other institutions, and also those students who "stop out," or leave only to return at a later time (Tinto, 1987).

Students drop out, stop out, and transfer for many reasons. Predictors of these conditions include factors related to student characteristics, student involvement with the college, academic aptitude and performance, aspiration and motivation, institutional type and image, and student services offered (Hamilton, 1995). Too often, the term dropout is a negatively connoted one which erroneously suggests failure. Studies by Tinto (1979, 1980, 1985) have shown that some students who drop out have successfully completed their classes or their goals or are temporarily leaving college with the intent to return (stopouts) (Noel, 1985). Tinto differentiates (1985) between involuntary and voluntary departures from college. Involuntary departures account for only fifteen percent of the total and result from academic difficulties related to lack of basic skills, low motivation, and poor study habits (Hamilton, 1995). Tinto (1975) had asserted that dropouts and
stopouts could be distinguished on the basis of institutional and goal commitments. He suggests that failure by colleges and universities to separate permanent dropouts from temporary and/or transfer dropouts can cause planners to overestimate the dropout phenomenon. Tinto contends that the current body of knowledge is woefully inadequate. He proposes longitudinal research models that facilitate the understanding of the processes of interaction of a student with the university. Individuals with low goal commitments tend to withdraw more so because of insufficient rewards from the college experience than from poor grades. Hence, the low levels of commitment to the university as well as to the goal of completing college can distinguish a voluntary withdrawal from an academic dismissal.

Brigman and Stager (1980) support this evidence. At a major university system in the Midwest, they studied a random sample of three hundred sixty freshmen withdrawers. Of these, three hundred three students voluntarily had withdrawn before completing a degree but were academically qualified to continue, and fifty-seven "stopped out," only to re-enroll somewhere else in the university system within two years. Using the variables of high school rank, Scholastic Aptitude Test (SAT) scores (verbal and mathematics), first semester GPA, and first year cumulative GPA, one-way Analysis of Variance (ANOVA) was employed to compare the two groups. In supporting Tinto's (1975) findings, they found that dropouts and stopouts achieved similar grades during their first semester and maintained almost identical GPAs with similar course loads, and, therefore, could not be distinguished. They suggest that it is the "fit" (Clark & Crawford, 1992; Rootman, 1972) between the student and the college which ultimately determines persistence.
Academic dismissal is the major form of involuntary departure (Tinto, 1987). It usually occurs when a student is either unable or unwilling to meet the demands of and satisfy the minimum requirements set forth by the university (Tinto, 1987, p. 83). By contrast, voluntary academic withdrawal occurs, for example, when students succumb to boredom, disinterest, etc. The withdrawal process is normally a painful experience for students, usually denoted by depression, difficulty, and feelings of self-doubt. Though for a small few, withdrawing from college is a step taken with much confidence. Students who withdraw usually leave voluntarily and with often marginal or suspect GPAs. Many freshmen withdrawals take place between the Spring and Fall semesters, over the summer (Cope & Hannah, 1975; Tinto, 1987); however, there are a significant number of freshmen who leave during the first six weeks of the Fall semester (Blanc, BeBuhr, & Martin, 1983; Gillespie & Noble, 1992). Many universities are oblivious to these students' plans to withdraw. For many students, to withdraw is a part of the original plan, a path of self-discovery, one in which they discover their likes, dislikes, and occupations that might be compatible with their interests and abilities.

Colleges and universities consist of academic and social systems, each having their own structural characteristics. The academic system consists of the formal education of students i.e. classrooms, labs, faculty, staff, etc. The social system consists of residential life, personal life, family, and work. It is conceivable that a person could become integrated into one of these systems which may or may not lead to establishment and integration into the other system; thus, departure from the institution still is quite possible (Tinto, 1987).
There are many factors which influence achievement, in addition to an individual's inclination to attend college. For one, if a student has a parent or parents who know and appreciate the value of a college education and who stress its importance, this goes a long way toward influencing a young mind to go to college (Anderson, 1985). Also, if that young person has peers who express aspirations of attending college, this also helps the situation. Moreover, high school teachers and counselors who express confidence in students and who pass on valuable information about college opportunities, the admissions process, and financial aid act as conduits in helping these young people to become established. Students who have demonstrated higher academic ability, though, are more autonomous in the process of college decision making; they gather more information on their own. A study by Galotti and Mark (1994) indicates that the four most frequently consulted sources of information were friends, materials in the high school guidance center, college brochures, and parents or guardians.

Although researchers have focused on the importance of social supports on the college campus, the value of parents and extended family attachments among students remains largely unexamined (Kenny & Perez, 1996). College support programs for students typically emphasize the development of campus supports and give little attention to family relationships. The emphasis on campus supports to the neglect of family attachments is consistent with traditional development models (Erikson, 1968; Freud, 1969) and models of college student development (Chickering, 1969) which emphasize the importance of family separation for adaptive psychological functioning in the late-adolescent periods. Research (Grotevant & Cooper, 1986; Hill & Holmbeck, 1986)
suggests, however, that both attachment and individuation are integral to healthy psychological functioning throughout the young adult years. Though a popular theory of college-student development such as Chickering's (1969) has been criticized for emphasizing separation and neglecting the unique experiences of racially and culturally diverse student populations which often emphasize family connections (McEwen, Roper, & Lagna, 1990), revised models (Chickering and Reisser, 1993) recognize the importance of interdependence rather than separation.

Though a growing number of researchers (Armsden & Greenberg, 1987; Belcheir, Michener, & Gray, 1998; Bell, Jenkins, Feld, & Schoenrock, 1985; Kenny, 1987, 1990; Kenny & Donaldson, 1991, 1992; Koback & Sceery, 1988; Lapsley, Rice, & Fitzgerald, 1990; Ryan & Lynch, 1989; Schulteiss & Blustein, 1994) have identified positive relationships between characteristics of secure parental attachment and measures of psychological well-being and college adjustment among four-year college students from predominantly white middle- and upper-middle-class families, the relevance of these findings for students from more diverse ethnic and socioeconomic backgrounds has not been investigated. Descriptions of ethnic and racial minority families as cohesive and interdependent (Cohler & Geyer, 1982; Harrison, Wilson, Pine, Chan, & Buriel, 1990) contribute to an expectation that family attachments may be salient to the psychological adjustment of ethnic and racial minority students. African-American first-year students have been described as maintaining close ties with family and turning to family for support and assistance when needed (Wright, 1984). Interdependence and collectivity have been identified as sources of reliance for families of color in coping with economic disadvantage.
and institutional racism (Harrison, et al., 1990). Findings from a qualitative study of African-American students at PWIs (Hughes, 1987) suggest that Afrocentric cultural values of interdependence, respect for parental authority and aging persons, and familial contact contribute to a unique process of individuation. In Hughes' (1987) study, support and encouragement of students from immediate and extended family back home were described by students as important sources of strength and survival, rather than as impediments to adjustment or individuation.

Some evidence suggests that close family attachments also can be a source of stress and conflict for students entering college, especially when the predominant racial and ethnic culture on the campus differs from that of the student and his or her family (Kenny & Perez, 1996). Ethnic minority students may experience discontinuity between family ecology and the school environment (Harrison et al., 1990) and conflict between university expectations and those of the family and cultural peer group (Maynard, 1980). If students are the first family members to attend college, they can experience tremendous pressure to achieve, not only for themselves but also for their entire family (Wright, 1984).

There are, however, some forces which temper and/or inhibit a young person's desire to attend college and succeed. Initially, the bureaucracy involved in applying for admission, receiving financial aid, and registering and enrolling in class can be quite a daunting task for a young person for sure (Wright, 1984). Students seem intimidated by the massive amounts of paperwork and long lines that are normal, daily university functions. Meeting with an advisor and establishing a course of study also can serve to deter a student. Combine these with the pressures of budgeting and managing one's time,
performing well on exams, labs, and practicums, and this creates a prescription for problems. Many public schools may not provide an encouraging and rewarding experience for minority students. As a result, these students may lack the motivation required to traverse the traditional college curriculum successfully.

Academic preparedness is another variable that is frequently examined when discussing student retention. Academic preparedness is measured by a student's score on tests such as the Scholastic Aptitude Test (SAT), the American College Testing program (ACT), and the School and College Abilities Test (SCAT) (Astin, Korn, & Green, 1987; Sedlacek & Adams-Gaston, 1992; Ting, 1997). Often, academicians equate low achievement test scores with low ability, but other variables such as test anxiety and stress may possibly lead to lower scores. Moreover, many students are under prepared simply because they have not met a college's or university's sometimes arbitrarily set cut off scores.

The ability to cope is also a factor which determines whether or not a student will return to campus for subsequent semesters. The conceptualization of coping processes is a central aspect of contemporary theories of stress. Coping is viewed as a stabilizing factor that can help individuals maintain psychosocial adaptation during stressful periods (Lazarus & Folkman, 1984; Moos & Schaefer, 1993). Fleishman (1984) defines coping as cognitive or behavioral responses "to reduce or eliminate psychological distress and stressful conditions" (p. 229). Although coping responses may be classified in many ways (Moos & Schaefer, 1993), most approaches distinguish between strategies oriented towards approaching and confronting the problem and strategies oriented towards
avoiding dealing directly with the problem (Roth & Cohen, 1986). In general, more or greater proportions of approach coping are associated with better psychological and academic outcomes, and more or greater proportions of avoidance coping are associated with poorer outcomes (Forsythe & Compas, 1987; Holohan & Moos, 1990, 1991; Vitaliano, Maiuro, & Russo, 1987). By young adulthood, coping strategies are differentiated according to the approach-avoidance distinction, with problem-focused strategies generally leading to fewer emotional and behavioral problems, and avoidant strategies involving the venting of emotions generally related to more such problems (Compas, Malcarne, & Fondacaro, 1988; Hoffman, Levy-Shiff, Solberg, & Zarizki, 1992). Being able to cope and persist requires that an individual adjust to the new world of college. Many college freshmen find the adjustment period to be a very brief one while others find it so difficult as to cause early departure. The adjustment period is twofold: separation from past associations and the acceptance and establishment of new friendships.

There is a large number of students who are unsure of their degree expectations (Gordon, 1985, 1989). Stage (1989, 1989a) finds that different types of students pursue different outcomes in college, based on personal goals and educational objectives. Students interested in using college as a means to earn a degree and get a job were most likely to remain in school when their academic integration was high and when they highly valued their particular college. Eison, Pollio, and Milton (1986) noted that students view college as a context in which they expect to experience new information and ideas that will be significant to them both personally and professionally (Talbot, 1998). In contrast, for students interested in gaining skills to prepare for community service, for example, the
decision to stay in school was influenced by the amount they valued their goal of graduating. Additionally, Stage notes that compensatory relationships exist between students’ integration into their academic and social life, and between the effects of these variables on persistence: As the level of social and academic integration increases, the positive influence of academic and social integration becomes less pronounced. Stage (1989) suggests that these compensatory relationships describe how different students use different combinations of college experiences to enable them to remain in school.

Because their interests are varied and wide, students who are undecided about going to college until the last minute and who still have unclear goals once they get there, do not have the same drive as others. Learning may not be as urgent and as relevant an undertaking for those who do not have clearly defined goals (Stage, 1989, p. 117). One estimate has it that over 75% of all students change their major at least once before they graduate (Foote, 1980). Students change majors for numerous reasons. Many students are pressured by family, friends, teachers, and counselors. to make a first choice, but they soon realize that they are in the wrong major once they start taking courses from that curriculum. This appears to be particularly true for engineering students (Adelman, 1999). Other students choose majors because of the dictates of the job market, but then find that their skill levels and abilities do not match the curricular requirements. Individually, the higher the level of a student's intention of completing a degree and commitment to the university, the more likely the student is to complete a degree (Gordon, 1985).

Commitment refers to an individual's willingness to work towards the attainment of goals within a particular educational institution. Particularly for medical doctors and scientists,
these occupations become motivators for achievement, as they require completion of academic degrees even before specialty training.

Tinto (1975) developed a theoretical model which attempted to explain the processes of interaction between the individual and the institution. He hypothesized that insufficient interaction with others (peers and faculty) would lead to a student withdrawing from school. In other words, students remain enrolled when they learn the subtle and overt rules governing study and classroom habits, when they develop routine and pleasurable social relationships, and when they develop a mental map of the campus in which specific and personal meanings are attached to specific locations (Kaplan & Kaplan, 1978). This interaction can be subsumed under the rubric of social integration which occurs primarily through peer group associations, semi-formal extracurricular activities, and interaction with faculty.

Pascarella and Terenzini (1977; 1977a; 1979) and Pascarella (1980) were able to test the validity of Tinto's model and confirm his hypothesis concerning social integration. They found that the higher the levels of a student's social integration, the less likely that student was to voluntarily leave college. Moreover, they examined specific types of student/faculty interactions. Using discriminant function analysis, it was determined that students who interacted with faculty outside of the classroom for ten minutes or more to discuss intellectual or course related concerns were more likely to persist than those students who did not, thus providing additional evidence to support the assertion that informal student/faculty contact is a significant factor of the college experience. As did Bean (1979), Pascarella and Terenzini (1983) confirmed that this student/faculty contact is
much more important for women than it is for men.

Another important predictor in the discussion of student withdrawal is academic performance. The nexus between positive self-concept of ability and academic performance has long been perceived as an important linkage by educators in assessing academic success. Individuals interpret and judge their achievements and abilities in ways congruent with prior self-conceptions (Jussim, Coleman, & Nassau, 1987). Academic self-concept has been noted to be closely related to adolescent students' achievement in a variety of clinical and academic settings (Bandura, 1982; Bandura, Adams, Hardy, & Howells, 1980; Chambliss & Murray, 1979a, 1979b; Greene, 1985; Shell, 1985; Schunk, 1984).

Stark, Shaw, and Lowther (1989) report that students' academic successes are influenced largely by their personally held academic goals and expectations. Further, the most consistent finding on how self and other expectations influence performance is that people live up or down to the expectations set for them (Brower, 1992; Featherman & Hauser, 1978). Wilhite (1990) found that academic self-concept accounted for a significant proportion of the variance in a multiple regression analysis of college course performance. Astin (1993) described particular types of students who have high academic self-esteem and high expectations for academic success, and he found these students' attitudes were significantly related to the students' college persistence. For example, House (1993) found that students' self-ratings of their academic abilities were significant predictors of their college grades. Mboya (1986) reported that academic self-concept was significantly correlated with the California Achievement Test scores of a sample of 10th
grade African American students. Song and Hattie (1984) noted that academic self-concept significantly affected the grade performance of adolescent students and that academic self-concept had a greater relationship to the achievement of adolescent students than did aspects of general self-concept (Song & Hattie, 1985).

Gerardi (1990) noted that, for minority engineering students, academic self-concept was a significant predictor of grade point average after three semesters in college. Wells and Sweeney (1986) demonstrated that students with high academic self-concept continually overestimate their achievement successes. Subsequently, they believe that they succeed more and fail less than those with low self-concepts, even when actual performances are similar (Jussim, et al., 1987). Arkin and Baumgardner (1985) found that students with low self-concept doubted their academic abilities, regardless of their performance. Levy and Baumgardner (1987) indicated that individuals with low self-concepts perceived high effort as proof of high ability and low effort as an indicator of low ability. Further, Baumgardner and Levy (1988) found that individuals with high self-concept perceived those with high self-concepts as successful, even when they were not. On the other hand, individuals with low self-concepts who were academically successful (2.0 GPA or better) were perceived as less able than were those with high self-concepts.

Self-concept of ability is not fixed in time but changes from reference group to reference group. African-American students who attend Historically Black Colleges and Universities (HBCUs), for example, tend to hold higher self-concepts than do African-American students who attend Predominantly White Institutions (PWIs) (Gerardi, 1990).

There are studies, however, that have failed to find a relationship between
academic self-concept and the subsequent school achievement of adolescent students. For example, Bachman and O'Malley (1986) found that academic self-concept of 11th grade students exerted no effect on educational attainment as much as six years later. Similarly, other studies have failed to find a significant causal relationship between either general self-concept or academic self-concept and subsequent academic achievement (Pottebaum, Keith, Ehly, 1986; Watkins & Guiterrez, 1990).

Academic expectancy beliefs arise from the perceptions about causality (Stipek & Weisz, 1981) and actual experiences (Rosenbaum & Hadari, 1985). Strong academic expectancies, in the form of the perceived contingency between behavior and desired outcomes, motivates performance by increasing task persistence and effort expenditure (Mischel, Zeiss, & Zeiss, 1974; Shell, 1985). Expectancy beliefs may reflect either general causality between personal actions and outcomes, as in locus of control (Rotter, 1966; Stipek & Weisz, 1981), or a more specific causal relationship between particular behaviors and their outcomes (Marsh, Cairns, Relich, Barnes, & Dubus, 1984). In general, students' achievement expectancies have been shown to be correlated significantly with late school performance (House, 1992). On the contrary, other studies have found no significant relationship between academic expectancy beliefs and academic performance (Green, 1987; Shell, 1985).

Expectancy beliefs, however, have been found to be related to study persistence, study time, and study effort (DeVolder & Lens, 1982; Shell, 1985), suggesting that expectancy beliefs may exert an indirect influence on performance by increasing effort and persistence for behaviors that affect performance improvement, rather than being directly
related to the performance area itself. The dual aspect of academic self-concept and academic expectancies as both motivators and indicators of performance constitutes what Bandura (1982) calls a *self-regulatory system*. The student engages in a behavior and is successful. This leads to increases in positive self-concepts and expectancies for this behavior. These, in turn, motivate the student to engage in the behavior again resulting in further success, which leads to further increases in positive self-concepts and expectancies. Academic self-concept and achievement expectancies, therefore, mediate future activity by motivating the person toward those behaviors where success is most likely to occur based on past experience (Shell, 1985).

Astin, Korn, and Green (1987) analyzed surveys of over 275,000 college freshmen at over 550 public and private colleges and universities across the country. They found that students who leave public universities are more likely to leave for academic reasons. These findings are consistent with earlier findings by Pascarella (1980) in a follow-up study about student satisfaction: the poorer the academic performance at public institutions, the greater the dissatisfaction. Bean and Bianchi (1980) concur with Pascarella. Their study investigated the use of personality measures as predictors of voluntary dropout from college. The sample consisted of 1,179 full-time freshmen students (323 males and 856 females). These students were divided into four criterion groups: five hundred high-achieving persisters; eighty-seven high-achieving withdrawals; four hundred ninety-one low-achieving persisters; and one hundred one low-achieving withdrawals. A persister was defined as one who enrolled and attended at the beginning of the sophomore year. A high achiever was defined as one with a GPA above 2.90, and a
low achiever was defined as one with a GPA of 2.90 or lower.

Students who were dismissed because of academic and/or disciplinary reasons were excluded from the study to prevent confounding. The predictor variables were SAT scores (V and M) and personality measures of self-control, social poise, autonomous thought and action, and social maturity as taken from the California Psychological Inventory. Using discriminant function analyses, Bean and Bianchi determined that SAT scores can predict high achievers from low achievers. Moreover, a combination of low academic aptitude and social immaturity was associated with low achievement and college withdrawal. Campbell (1980) upheld these findings. He studied a random sample of eight hundred freshmen at a Midwestern university. Using a questionnaire to obtain academic, social, personal, and financial variables, Campbell was able to determine that sixty-seven percent of persisters reported their past/last semester's academic performance to be above average (A or B). Eighteen percent of those who withdrew had either accumulated a majority of D grades or were on academic probation.

Pascarella and Chapman (1983) studied eleven hundred five randomly sampled freshmen. Using path analysis and multiple group discriminant function analysis, they, in support of the findings by Campbell (1980), found that, among other things, first semester GPA and expected second semester GPA were strongly associated with persistence. Bank, Biddle, and Slavings (1994) attribute the withdrawal of these types of students to impulsivity. In a study of five hundred ninety-one freshmen at a large, state university in the Midwest, Bank et al. used initial grades, self-concept, preferences and personal norm. Self-concept was defined as a belief that one holds about his or her own characteristics.
Preferences were defined as the amount of liking a person forms about a behavioral experience, and personal norm was defined as a standard that a person holds concerning his or her own behaviors. The criterion variable was persistence/withdrawal. Using multiple regression analysis, they found that students who receive high initial grades are more likely to persist than those who receive low grades. They hypothesized that students are traumatized by low grades and withdraw impulsively.

Studies Related to African American Students at PWIs

African-American student attrition at PWIs in the United States has increased to alarming percentages. Approximately eighty-two percent of African-American high school students who enroll in a college will attend a PWI (Sailes, 1994); however, the attrition rate for African-American students attending PWIs is approximately sixty-five percent. **Attrition rate** can be defined as the number of first-time, full-time freshmen who enter a particular institution in the Fall of any given year and are not enrolled one year later (Noel, 1985). Research findings suggest that African-American students have not fared well at PWIs (Fleming, 1984; Pantages and Creeden, 1978).

Many African-American students at PWIs report that their relationships with faculty members and peers are negative, and that they avoid interaction with them outside of the classroom. From the perspective of the faculty, the tendency is to have lower academic expectations and to assume that most African-American students have not met the standard academic requirements of the university (Brookover, Beamer, Eftim, Hathaway, Legatte, Miller, Passalacqua, & Tornatzky, 1979; Forrest, 1987). Sedlacek (1996) notes that African-American students at PWIs are often the recipients of
incomplete or inaccurate feedback. These students also report that they rarely attend
campus events and are generally not socially active on campus (Allen, 1988; Fleming,
1984; Nettles, 1988). African-American students may find it especially difficult to get
close enough to faculty, staff, and other students to become a central part of the
information communication system that is critical in making the necessary adjustments to
be successful. Nettles, Thoeny, and Gosman (1986) found faculty contact outside the
classroom to be a significant predictor of GPA for African-American students. Braddock
(1981) and Sedlacek (1987) found such faculty contact more important to African-
American student retention at PWIs than at HBCUs.

Other findings, however, suggest that African-American students at PWIs who
were better off academically were also on better terms with faculty members, that they
found their institutions to be generally supportive of their educational endeavors, and
consequently seemed to make a greater effort to interact with their professors (Nettles,
exists between African-American students and faculty members at PWIs. That is, African-
American students who perceive they are being supported by their university will be less
likely to avoid contact with faculty and administrators than those African-American
students who do not receive this support. Thus, professors will respond more actively to
students who have fostered informal contact with them outside of the classroom setting,
and this relationship will have a positive impact on academic performance.

Desousa and King (1992) and MacKay and Kuh (1994) also have challenged the
popular belief that African-American students attending PWIs are alienated and isolated

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and, as a result, do not benefit from the college experience comparable to the levels of white students. For example, MacKay and Kuh found that different types of involvement contributed differentially to the educational gains for African-American and white students at colleges that provided an exceptionally rich out-of-class learning experience, which Kuh, Schuh, Whitt, Andreas, Lyons, Strange, Krehbiel, and MacKay (1991) referred to as "involving colleges." Because of their unique contextual conditions, involving colleges promulgated higher levels of student involvement and learning than did other institutions (Kuh, G. et al. 1991; McKay & Kuh, 1994). Similarly, DeSousa and King (1992) reported "few differences in levels of involvement between African-American and white students. Where differences did exist, African-American students were more involved in collegiate activities" (p. 363). Moreover, Bohr, Pascarella, Nora, and Terenzini (1995) reported no differences in first-year gains in the areas of reading comprehension, mathematics, critical thinking, or composite achievement of African-American students at PWIs or HBCUs. None of these researchers, however, considered students' perceptions of their institutions' environments and the quality of students' relations with peers, faculty, and administrators, which are factors that are related to educational gains of African-American students (Pascarella & Terenzini, 1991; Watson & Kuh, 1996).

Sociopsychological factors such as isolation and alienation have been associated with adjustment difficulties (Loo & Rolison, 1986; Pascarella & Terenzini, 1980; Tinto, 1975, 1987; Tracey & Sedlacek, 1985). Peterson and Rodriguez (1978) observed that African-American students perceived university and community activities at PWIs as directed towards white students. This belief resulted in feelings of anger, frustration, and
helplessness among African-American students. These students may respond to the stress by leaving the university. Remsik (1979) pointed out that, when entering college, African-American students experienced a much more severe culture shock than white students. Others (Cortina, 1980; Goodrich, 1980; Suen, 1983) also suggest that alienation was a significant factor in African-American college student attrition. The transition to college involving social, emotional, and academic adjustments is a normal but often stressful life event. The stress associated with that transition may be greatest for students entering a college environment where the predominant ethnic and racial culture differs from the student’s own, an environment dominated by unfamiliar norms and unfamiliar verbal and nonverbal modes of communication and which is referred to as transitional trauma (Bean & Bennett, 1984).

Some studies have indicated that a student’s sense of ethnic identity is an important factor of interacting with other cultures and succeeding in college (Ford, 1979; Gay, 1982). Stage of ethnicity refers to the extent to which an individual is comfortable with his or her ethnic identity, and is accepting of others with differing ethnic identities (Bennett, 1984). Many typologies of ethnic self-identity (e.g. Banks, 1979; Milleones, 1976) are similar because individuals are categorized by their levels of self-identity, self-acceptance, and openness to ethnic diversity. The Banks typology classifies individuals according to their degree of openness to human diversity, especially ethnic differences, and has been applied in educational settings (Ford, 1979). According to Banks (1979), five stages of ethnicity are possible: Stage 1: Ethnic psychological captivity: During this stage, a student has internalized the negative ideologies and beliefs about his or her ethnic
group that are institutionalized within the society. For example, many African-American college students today attended schools as children where they and their peers were labeled by professionals as culturally deprived and high risk (Comer, 1988; Keniston, 1977), and their parents were labeled as uncooperative (Logan, 1990), even when such descriptors did not fit the students and their parents (Logan, 1990a).

Stage 2: Ethnic encapsulation: Stage 2 is characterized by ethnic exclusivity, including voluntary separation. Some evidence exists to support the theory that African-American students are cooperative learners (Rodriguez, 1983); this is based on the observation that many African societies are more communal than Western ones (Lewis, 1994). Within the context of an environment experienced as hostile or unfriendly, African-American students often isolate themselves and are not connected to their most effective and natural resource, a collaborative/cooperative learning style (Logan, 1990a).

Stage 3: Ethnic identity clarification: In this stage, the student is able to clarify personal attitudes and ethnic identity, reduce internal conflict, and develop positive attitudes toward his or her ethnic group, and the individual learns to accept self.

Stage 4: Biethnicity: Students within this stage have a healthy sense of ethnic identity and the psychological characteristics and skills needed to participate in their own culture, as well as in another ethnic culture.

Stage 5: Multiethnicity: This stage describes the idealized goal for citizenship within and ethnically pluralistic environment. The student within this stage is able to function within several ethnic sociocultural environments (Bennett & Bean, 1984). According to Bennett and Bean, African-American students at PWIs would need to be at least in Stage 3 to have a successful transition to college. Allen (1992) notes that African-
American students experience adjustment difficulties similar to those of all other college students, plus a unique set of additional problems. Significant personal, social, and family adjustments may be encountered by students of color (Hershberger & D’Augelli, 1992), particularly African-American students. They often are forced to create their own social and cultural networks in response to their exclusion from the wider white-oriented university (Allen, 1992).

While Abatso (1982) agrees with the assessment that many factors affect African-American retention rates, she subsequently places some of the blame on African-American students themselves by positing that many of them enter college with unrealistically high expectations, thus leaving them unable to cope with the demands that a college campus provides during their freshman year. Among the noncognitive variables identified by Sedlacek and Brooks (1976), realistic self-appraisal has been found to have the most consistent association with African-American student persistence. Specifically, this variable was found to predict persistence to the second year (Tracey and Sedlacek, 1984), persistence over four years (Tracey & Sedlacek, 1985), and graduation (Tracey & Sedlacek, 1987) for African-American students (Trippi & Stewart, 1989). Clark (1960), however, believes that institutions of higher learning should serve as a buffer for students who are not capable of achieving success, a buffer which helps to deflect resentment at failing. He feels that these students should be tracked into “nontransferable” vocational and/or semi-professional programs until they come to terms with their inabilitys and are slowly ushered out of the door.

In her exhaustive and comprehensive work on African-American students and
college, Fleming (1984) strongly disagrees with Clark's notion of "cooling out" while lauding the role of colleges in helping to remediate and matriculate these students into the mainstream of American life. According to Fleming (1984), Giles-Gee (1989), and Sherman, Giles, and Williams-Green (1994), African-American students at PWIs are far more likely to experience academic hardship and dropout than are their nonminority cohorts. This finding, though, is refuted in an earlier study by Stith and Russell (1984) at a public university of 28,000. Their random sample was composed of 310 freshmen, of whom 128 were African-Americans, 131 whites, forty-nine Hispanics, and two Asians. They found that one-third of all Hispanics and whites who dropped out did so within the first two years; however, only one-fifth of all African-Americans did so within the same time period. Moreover, Trippi and Cheatham (1991), using a random sample of two hundred thirty-one African-American students at a large, northeastern university, were able to replicate similar findings when socioeconomic status (SES) and academic ability were controlled.

Establishing and setting goals appear to have a significant effect on the achievement levels and retention rates of African-American college students. A goal is "what an individual is trying to accomplish: It is the object or aim, of an action" (Locke, Shaw, Saari, & Latham, 1981, p. 126). This view of a goal as something to be achieved is widespread in the literature (Bandura, 1986; Dweck & Leggett, 1988; Ford, 1986; Klinger, 1977; Maehr & Braskamp, 1986; Markus & Wurf, 1987; Murray, 1938; Vidler, 1977). Goals can be related to an observed outcome, but distinguished from the needs, motivations, or expected rewards that cause one to desire the goal. Moreover, goals play
a crucial role in guiding the activities of individuals as they strive for achievement. Goal setting theory suggests that performance effects are more pronounced when an individual has specific goals or standards of performance to meet than when specific goals are absent. This research assumes that goals (e.g., aims or intentions) are essential for humans to regulate their own behavior (Stark, Shaw, & Lowther, 1989).

Goals are either established by an individual (voluntary goals) or they are imposed or assigned by other persons (assigned goals) (Stark et al., 1989 [p. 55]). On the one hand, commitment to self-established goals is stronger than commitment to assigned goals. On the other hand, goals assigned by others often are strongly held, particularly in cases where extrinsic rewards are very strong or acceptance is very firm (Matsui, Okada, & Mizuguchi, 1981; Terborg, 1976). Long-range goals to which individuals have weak commitment, or which are not of their own choosing (minimal ownership), are likely to be changeable rather than stable. The notion that higher expectations can increase levels of achievement over time is based in goalsetting theory, which ascribes variance in performance more to motivational factors than to individual differences in ability or knowledge (Hamilton, 1995; Locke & Latham, 1990). According to goalsetting theory, individuals must be aware of and ascribe to established goals in order to demonstrate the predicted relationship between goals and performance (Wright & Cistone, 1994).

Simpson, Baker, and Mellinger (1980) studied nearly 1000 randomly selected males at a state-supported institution in the Bay area of the West Coast. The predictor variables used were consistent with the predictor variables of traditional retention models, including the dichotomously coded criterion variable, withdrawal vs. persistence. Regression
analyses were employed to assess the data. The researchers confirmed that students with more clearly defined goals are more likely to persist than those who are unsure. This finding is supported by Brewton and Hurst (1984) who studied ninety-two freshmen at a public university in the Gulf region (Florida, Alabama, Mississippi, Louisiana, and Texas) seventy-five percent of whom were white and twenty-five percent of whom were African-American. Fifty-five percent were females, and the remaining forty-five percent were males. They determined that undecided (Freshmen Studies) students had the lowest GPA of any majors on the campus. Additionally, Davidson and Muse (1994) studied two hundred first-time African American freshmen at a major university in the southwest, and, again, the results were similar: not identifying a program of study or declaring a major during the freshman year is a major variable that predicts attrition.

Student retention is not an accident; it is a by-product of improved programs and services which lead to greater student success. Retention does not mean a lowering of standards. Inflated grades and tepid, unchallenging course work have never been a way to keep students on campus. Institutions of higher learning are no different from any other thriving communities. Departure from college is promulgated by a lack of social and intellectual integration into the societal structure of that institution (Astin, 1993). Student departure is also a reflection of an institution’s commitment to recruiting (Astin, 1993a). It is not a secret that students who are made to feel a part of the university fabric once they are admitted are less likely to withdraw (Eaton & Bean, 1995).

Studies Related to Noncognitive Variables

Social psychologists have conducted considerable research in attitude
measurement because they believe that behavioral change is predicated upon attitudinal change (Rotter, Chance, & Phares, 1972). Astin (1978) supports this view. In a longitudinal study of over 6,321 white, Oriental, African-American, and American Indian students, he found, among other things, that students undergo a variety of changes in attitude after they enter college. For example, students’ religious behaviors decrease while hedonistic behaviors (drinking, drug use, etc.) increase. Sedlacek and Brooks (1976) proposed seven noncognitive variables that were related to academic success for all students, but particularly minority students: (1) positive self-concept, (2) realistic self-appraisal, (3) understanding of and ability to deal with racism, (4) preference for long-term goals over short-term or immediate needs, (5) availability of a strong support person, (6) successful leadership experience, and (7) demonstrated community service.

Although cognitive predictors of academic success traditionally have been used for college admission and gauging potential for academic success, there is considerable evidence that these traditional measures are not as valid for African-American students (Abrams & Jernigan, 1984; Farver, Sedlacek, & Brooks, 1975; Lunenborg & Lunenborg, 1986; Sedlacek, 1977, 1986; Tracey & Sedlacek, 1984, 1985a, & 1987a). Generally, traditional precollege indices such as high school GPA (HSGPA) and SAT scores, etc. predict persistence substantially better for white students while nontraditional predictors continue to gain credibility in their relevance to the persistence and academic success of minority students (Lichtman, Bass, & Ager, 1989; Trippi & Stewart, 1989). Prillerman, Myers, and Smedley, (1989); Sowa, Thomas, and Bennett, (1989) have all concluded that nontraditional dimensions account for as much as or more of variance in retention rates.
Many nontraditional students face the challenge of acculturating or "fitting" into their chosen universities. Sedlacek (1996) has proposed two criteria for consideration of a group as a "nontraditional" one. The first criterion is that indifference is shown to exist toward a group. Students of color often feel that the relationship between their efforts and their rewards in college is blurred and inconsistent, making it difficult for them to set long-term goals and persevere. The second criteria is that noncognitive variables be shown to predict academic success for the group. Noncognitive variables have been shown to have high predictive validity of grades and retention for a wide range of groups (Brooks & Sedlacek, 1976; Sedlacek, 1996).

During a five year period that covered the mid-1970's, African-American students who took the SAT scored considerably lower than white students on both the verbal and mathematics sections (Jacobson, 1980). In 1996, there was still a more than 100 point gap between those scores (Nettles, Pena, & Freeman, 1999), but many colleges and universities continue to employ these measures which result in negative outcomes in the form of no or conditional admissions for African-American students. This often has the concomitant effect of reducing self-esteem of African-American students and stereotyping behavior by whites (Sedlacek, 1987). Sedlacek (1986) suggested that many colleges and universities have a one-measure-for-all approach to admission, mainly using SAT and ACT scores and HSGPA solely as criteria. Increasingly, however, it has become apparent that noncognitive variables are highly predictive of persistence and graduation of African-American students (Tracey & Sedlacek, 1987). Not only do African-American students
appear to have developed abilities that are best measured through noncognitive variables, but these noncognitive variables add to the predictability of college performance as well for international students (Boyer & Sedlacek, 1986), Asians and Hispanics (Fuertes, Sedlacek, & Liu, 1994), and athletes (Sedlacek & Adams-Gaston, 1992).

Since 1980, Asian Americans have recorded a steady growth in higher education (American Council on Education, 1993), but Asian student persistence, in large part, depends upon the degree to which they can adapt to the campus environment (Fuertes, Sedlacek, & Liu, 1994; Sodowsky, Lai, & Plake, 1991; Wang, Sedlacek, & Westbrook, 1992). In a study at a large Midwestern university, one hundred thirty-two Hispanics and one hundred forty-nine Asians were sampled to examine the effects of their acculturation into the university environment. It was confirmed that though Asians feel more socially-alienated (less acculturated) and less satisfied than Hispanic students, they were still more likely to persist than Hispanic students (Sodowsky et al., 1991). Hispanic students are the second fastest growing minority group in U.S. higher education, second only to Asians (Fuertes & Sedlacek, 1994). Despite this increase, however, statistics show that Hispanics have higher attrition rates and lower graduation rates than other ethnic groups. In predominantly white institutions, the retention rates of blacks and Hispanics tend to be lower than those of white students (Arbona & Novy, 1990; Clagett, 1998; Keller, Deneen, & Magallan, 1991; Stoecker, Pascarella, & Wolfe, 1988; Chronicle Almanac, August, 1992).

In addition, there is a significant difference between the numbers of African-American students who enroll in college and those who graduate (Lang & Ford, 1988).
Despite the fact that African-American students' high school graduation rates have steadily increased over the years, attrition from postsecondary education remains a major obstacle to the attainment of educational equity (Christoffel, 1986). Largely through the work of Sedlacek (1977; 1986; 1987; 1996) and Tracey and Sedlacek (1984, 1985), predictions of African-American students' academic success and retention have been shown to be less valid when high school grades (HSGPA), class rank, and SAT scores are used alone.

Tracey and Sedlacek (1984, 1985, 1987) demonstrated the validity of noncognitive variables by showing their usefulness in predicting grades, retention, and graduation for African-American students for up to 6 years after initial matriculation (Sedlacek, 1987). Noncognitive variables are important and should be used to facilitate admissions decisions as well as predict college performance and retention of African-American freshmen students.

Increased educational opportunities for African-American students have helped change the demographics of the nation's higher education institutions. These opportunities have wrought progressively sharper increases in the number of African-American students attending predominantly white institutions, so much so that predominantly white institutions now surpass Historically Black Colleges and Universities (HBCUs) in enrollment of African-American students. Even though less than 20% of all degrees earned by African-American students are produced at PWIs (Fleming, 1984), more than half of the nation's African-American students are enrolled in these institutions (ACE, 1989, 1994; Davis, 1995; Haralson, 1996).
Summary

There are stark differences between the college students of today and the ones of even thirty years ago. For one, the sheer numbers of them have increased. In the Fall of 1969, 7,976,834 students were attending the nation's colleges and universities. By the Fall of 1979, that number of students had risen to 11,669,429, an increase of 42% (Levine, 1980). By the late 1990s, that number stood at 14,085,000 (Chronicle Almanac, 1998), of whom 44% were over twenty five years of age, 54% were working, and 59% were female (Levine and Cureton, 1998).

The current body of literature has given considerable confirmation to the notion that noncognitive variables are effective predictors of the academic success and persistence rate of college freshmen. Moreover, these predictors are found to be especially germane to African-American student retention. Noncognitive predictors have contributed a large amount of the variance in studies where academic achievement and persistence rate were used as criterion variables. Because African-American students have had a different set of societal experiences, nontraditional measures must be taken into account when assessing the causes and cures of attrition for them.

The scope of attrition and retention is vast and wide; students change as society changes. As long as this condition exists, there will always be more to learn about why college students do what they do.
CHAPTER III
METHODOLOGY

Overview

This chapter addresses the use of certain noncognitive and cognitive variables in predicting the academic success and persistence rate of African American freshmen students attending a large, predominantly white institution (PWI). Academic achievement is defined as a student’s cumulative college grade point average and cumulative earned credits at the end of the freshman year of study. Zhao (1999) calls cumulative first year GPA one of the most salient predictors of academic achievement. Persistence rate is defined as the number of freshmen who enrolled compared to the percentage of those who re-enrolled for the Fall semester of their sophomore year. Barr and Rasor (1999) note that a traditional and basic measure of freshman persistence is continued enrollment through subsequent semesters.

The purpose of this study is to identify selected variables that are associated with increased African-American academic achievement and persistence and to impact policy that guides the development and implementation of student retention programs for these students. The noncognitive independent variables identified for investigation are academic self-concept and achievement expectancies. These are chosen because they are the two most commonly studied noncognitive variables, and they explain significant amounts of variance in measures of academic performance and persistence (Gordon, 1989; House, 1993a, 1994, 1996). At the time they applied for admission, students self-reported their gender. Students also reported SES and first generation status on the Biographical
Questionnaire, an instrument designed to gather demographic information on incoming freshmen. SES was based on parents' educational and occupational levels using Hollinghead's (1957) and Hollingshead's and Redlich's (1958) Index of Social Position. This index is premised upon three assumptions: (1) the existence of a class structure within the community; (2) that class status positions are determined mainly by a few commonly accepted symbiotic characteristics such as the family's street address, the occupation of its head, and the years of schooling he or she has completed; and (3) that these symbiotic characteristics of class status may be scaled and combined by the use of statistical procedures (Hollingshead and Redlich, 1958, p. 390). Several studies report a relationship of many demographic factors to achievement and persistence (Woolford-Hunt, 1999).

Subjects

The population for this study will consist of 647 African-American freshmen students who entered a large, state-supported, southeastern Predominantly White Institution (PWI) during the 1996-97 and 1997-98 academic school year. This study has been categorized as exempt by the Darden College of Education Human Subjects Review Committee (See Appendix C). These cohorts were chosen because the 1996-1998 time frame was a period in which the Freshmen Survey, a noncognitive assessment of students' attitudes, behaviors, and expectations, did not experience any major revisions, which minimizes the possibility of an instrumentation threat to internal validity. The university has a culturally diverse student body of over 18,000. Approximately 25% of these are African-American students.
Instruments

Freshman Survey

Over the past decade, much research has been directed toward the development of an instrument designed to assess the quality of effort that students put into their collegiate experience (Pace, 1984, 1987, 1990). Pace argues that this collegiate experience is based on the proposition that all learning and development require an investment of time and effort by the student. He indicates that when students are asked if they agree with the statement, "If students expect to benefit from what this college or university has to offer, they have to take the initiative," more than 95 percent agree (Pace, 1982, p. 1). In a study at a large major research university in the Midwest, in the Spring of 1986, twelve hundred forty-four undergraduates were studied to determine the quality of effort in their educational experiences and their judgements of educational gains, using a survey instrument designed by Pace (1979), the College Student Experiences Questionnaire (CSEQ). This instrument contains fourteen quality of effort scales, including a scale that enables one to determine the relationships between quality of effort and achievement. Among other things, the study confirmed that students significantly associated educational gains with the quality of parallel effort and experiences. For instance, students who reported high quality experiences in writing courses registered more gains in those areas. Additionally, students reported strong associations between quality of effort and experiences and their self-reported gains in developing values and ethical standards. Students, unexpectedly however, did not report strong associations between the quality of experiences with faculty and educational gains (Pace, 1988). Earlier, in 1981, in an
analysis of some 12,000 undergraduate responses at 40 different colleges and universities using the CSEQ, quality of effort measures explained from 39% to 47% of the variance on an achievement criterion variable (Pace, 1982).

Kim and Sedlacek (1995) also agree that since people's expectations influence their behavior, it is important to examine the expectations of incoming college freshmen whose beliefs and hopes may help determine their level of academic and social integration, which have been linked to persistence and retention rates. Davis and Murrell (1993) have suggested that students must transform their educational aspirations and experiences by making these aspirations and experiences a part of their way of being and using what they learn to be accountable and responsible.

The Freshman Survey (Calliotte & Pickering, 1988) used by this university is an instrument that was designed to collect information about an incoming student's attitudes, behaviors, characteristics, and expectations. It was born out of stimulation from Astin's (1987) work with the Cooperative Institutional Research Program (CIRP) Freshman Survey. Over the past twenty years, Astin's (1984, 1991, 1996) work has provided an important conceptual framework for studying academic outcomes in higher education (Zhao, 1999), although Astin's survey is not necessarily to predict difficulty, but to identify information about each year's incoming freshman class on a national basis. That survey prompted researchers at the university under study to review the literature for studies that identified factors related to academic difficulty and attrition of freshman students. With variables that held promise from the research literature, researchers would develop an item (or items) based on that variable, that is, study time, parental support,
identification with the student role, academic self-concept, etc. (J. A. Calliotte, personal communication, July 17, 2000).

The Freshman Survey consists of nine domains designed to measure these aforementioned attitudes, behaviors, characteristics, and expectations. The survey has been in use since the Fall of 1988, and it has been validated as identifying those noncognitive variables that affect academic success and persistence. Over the past nine years, the survey has undergone slight revisions with the total number of questions increasing from 120 to 142, but the basic format and content have remained the same. The 142 items are subsumed under the following domains:

1. Deciding to Attend College: 11 items are rated on a scale of zero (very important) to two (not important).
2. Reasons for Choosing This Particular College; 26 items are rated on a scale of zero (very important) to two (not important).
3. Numbers of hours spent per week in various activities during senior year in high school; 11 items are rated on a scale of zero (zero hours) to four (more than 20 hours).
4. Frequency of various social and academic activities/experiences during senior year in high school; eight items are rated on a scale of zero (frequently) to two (never).
5. Self-ratings of abilities and traits compared to the average peer; 13 items are rated on a scale of zero (top 10%) to four (lowest 10%).
6. Attitudes about being a college student; 10 items are rated on a scale of zero (strongly agree) to five (strongly disagree).
7. Self-descriptions; 10 items are rated on a scale of zero (strongly agree) to five
(strongly disagree).

8. Predictions with regards to academic success; two items are with multiple choice options, and 19 other items rated on a scale of zero (very good chance) to two (no chance).

9. Predictions about involvement in various cultural, social, and academic activities while in college; 22 items are rated on a scale of zero (never) to three (very often); and one item with a multiple choice option.

10. Making a college choice; nine items are multiple choice options (Calliotte & Pickering, 1988).

In a previous work using Probation and Attrition Scores (Cunningham, 1993), which were derived from responses given on the Freshman Survey and indicated a student's potential for academic difficulty, an alpha reliability coefficient of .63 for the Survey was identified. In that study, probation status was the dichotomous academic performance variable as determined by GPA, and attrition status, also dichotomous, was indicated by sophomore year enrollment. Also, in a previous study by Pickering, Calliotte, and McAuliffe (1992), the researchers found that Probation Scores derived from the survey were quite accurate in predicting students' academic performance. In fact, students with Probation Scores of 16-17 had a 100% probability of being in academic difficulty at the end of their freshman year. Attrition Scores showed similar data. A freshman with an Attrition Score of 15 and above indicated a 100% likelihood of attrition at the end of the freshman year (Cunningham, 1993).
Biographical Questionnaire

The Biographical Questionnaire, designed to gather demographic information about incoming freshmen is administered during the summer orientation period. It has one hundred forty-four items and is designed to collect information about students' backgrounds, including family educational and socioeconomic data. Some of the data gathered includes specific items about residence status, parents' occupation and level of education, size and type of hometown, and family income levels.

Research Design

This study is causal comparative in nature, and it will use historical data. The Freshmen Survey (Calliotte and Pickering, 1988), a noncognitive assessment instrument, is administered to incoming freshmen at a large, state-supported, southeastern PWI during the summer orientation period. Surveys for this study were administered in the summers of 1996 and 1997. Data from the Freshmen Survey are used to describe the relationship between the noncognitive, cognitive, and demographic variables mentioned in the methodology overview section and the performance indicator dependent variables of academic achievement and persistence. For the purposes of this study, academic achievement is defined as a student's cumulative college grade point average and cumulative earned credits at the end of the freshman year of study. Persistence rate is defined as the number of freshmen who enrolled compared to the percentage of those who re-enrolled for the Fall semester of their sophomore year.

Procedures

The approach of this study is to describe the relationships of selected noncognitive,
cognitive, and demographic factors to the academic achievement and persistence rate of African-American students attending a large, state-supported PWI.

The specific null hypotheses to be addressed are (a) there will be no significant relationship between the academic self-concept and college GPA of African-American freshmen students; (b) there will be no significant relationship between the academic self-concept and cumulative credits earned of African-American freshmen students; (c) there will be no significant relationship between the academic self-concept and persistence rate of African-American freshmen students; (d) there will be no significant relationship between the academic achievement expectancies and cumulative college GPA of African-American freshmen students; (e) there will be no significant relationship between the academic achievement expectancies and cumulative credits earned of African-American freshmen students; (f) there will be no significant relationship between the academic achievement expectancies and persistence rate of African-American freshmen students.

During the summer orientation session, students are administered the Freshman Survey and the Biographical Questionnaire in the University Center. Freshmen who did not complete the instruments were requested to do so prior to meeting with their advisors or during a make-up session.

Statistical Analysis

Descriptive statistics (e.g., mean, mode, median, and standard deviation) will be computed to define the characteristics of the data and to facilitate subsequent analyses. Pearson coefficients are calculated to report the relationships between the noncognitive variables and college grade point average (GPA) and cumulative credit hours earned and
persistence. Coefficients of correlation, means, and standard deviations are calculated to report the relationship between cognitive and demographic variables with college GPA and cumulative credit hours earned and persistence. T-tests and correlation analyses are used to report significant relationships among these variables. This process allows the testing of many hypotheses simultaneously on the same sample of subjects without inflating the experimentwise alpha level, which helps prevent the researcher from committing a Type I error of erroneously rejecting the null hypotheses (Campbell & Tucker, 1992). The 95 percent confidence level (Borg & Gall, 1996) will be established as the criterion for determination of the significant variation between nonsuccessful and successful African American freshmen students.

Summary

This study is designed to determine the relationships between noncognitive, cognitive, and demographic factors and the academic success and persistence rate of African-American freshmen students. The study was performed in two parts: (a) identification of responses on the Freshman Survey; and (b) determining the statistically significant effects of cognitive, noncognitive and demographic variables separately and in combination with respect to the amount of variance caused in the criterion predictors of academic success and the persistence rate. The results of these procedures can be found in Chapter 4.
CHAPTER IV

RESULTS

The purpose of this study was to investigate the relationship between the noncognitive variables of academic self-concept and achievement expectancies and the academic success and persistence rate of African-American freshmen students attending a predominantly white institution (PWI). Six hypotheses were tested with data collected from the Freshmen Survey (Appendix A), an instrument designed to collect information about incoming students' attitudes, characteristics, behaviors, and expectations. Presented in this chapter are the results of the statistical analyses that were conducted to test the hypotheses. The discussion of these results is in Chapter 5.

Descriptive Statistics

The statistical analyses were conducted on data collected from 647 African-American undergraduate freshmen students who matriculated at the university during the Fall of 1996 and 1997. Demographic data on these students were collected from the university's Biographical Questionnaire, an instrument designed to gather demographic information about incoming freshmen (Appendix B). Ethnicity and retention data were gathered from university records. The descriptive variables noted for each student consisted of (a) ethnicity and (b) retention status.

Ethnicity

Participants were asked to identify their ethnicity based on the following choices: American Indian/Alaska Native, black (non-Hispanic), international, Asian/Pacific Islander, Hispanic, white (non-Hispanic), and other. Students who responded as “black
(non-Hispanic)" were classified as African-American. A summary of population ethnicity statistics from which the sample was taken is represented in Table 1. As expected, white students and African-American students made up the majority of the sample (85.3%). White students comprised 61.5% of the sample while African-American students comprised 23.8%. The overall population of the state where the study was conducted was 77.4% for whites and 18.7% for African Americans (U. S. Census Bureau, 2000). At this particular university, African-American students are slightly over-represented in comparison to their overall state population numbers; conversely, white students at this university are slightly under-represented in comparison to their overall state population numbers.

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>n</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian/Alaska Native</td>
<td>16</td>
<td>0.6</td>
</tr>
<tr>
<td>Black (non-Hispanic)</td>
<td>647</td>
<td>23.8</td>
</tr>
<tr>
<td>International</td>
<td>4</td>
<td>0.1</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>222</td>
<td>8.2</td>
</tr>
<tr>
<td>Hispanic</td>
<td>81</td>
<td>3.0</td>
</tr>
<tr>
<td>White (non-Hispanic)</td>
<td>1675</td>
<td>61.5</td>
</tr>
<tr>
<td>Other</td>
<td>76</td>
<td>2.8</td>
</tr>
<tr>
<td>Total</td>
<td>2721</td>
<td>100.00</td>
</tr>
</tbody>
</table>
Retention Status

Freshmen student enrollment status for the Fall semester of the sophomore year was labeled as "retained" or "not retained." Retention usually is measured late in the semester to ascertain whether or not all registrations that exist are accounted for; thus, if a freshman in the sample completed the Fall semester of the sophomore year, he/she was labeled as "retained." If the student did not complete the Fall semester of the sophomore year, he/she was labeled as "not retained." A summary of sample statistics of those students retained and not retained by ethnicity is represented in Table 2. As can be seen, African-American students had a 73% retention rate through the Fall semester of the sophomore year, a rate that exceeded every other ethnic group except Asians/Pacific Islanders.

Table 2
Sample Frequencies for Retention Status by Ethnicity (1996-1997)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Retained</th>
<th>Not Retained</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian/Alaska Native</td>
<td>11</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Black (non-Hispanic)</td>
<td>472</td>
<td>175</td>
<td>647</td>
</tr>
<tr>
<td>International</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>179</td>
<td>43</td>
<td>222</td>
</tr>
<tr>
<td>Hispanic</td>
<td>51</td>
<td>30</td>
<td>81</td>
</tr>
</tbody>
</table>
Table 2 (Continued)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Retained</th>
<th>Not Retained</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>White (non-Hispanic)</td>
<td>1127</td>
<td>548</td>
<td>1675</td>
</tr>
<tr>
<td>Other</td>
<td>53</td>
<td>23</td>
<td>76</td>
</tr>
<tr>
<td>Total</td>
<td>1180</td>
<td>571</td>
<td>1751</td>
</tr>
</tbody>
</table>

Instruments of Measurement

The Freshman Survey is a noncognitive assessment of students' attitudes, behaviors, and expectations (Calliotte & Pickering, 1988). This instrument, which was administered to all participants of this study, includes items/scores that represent academic self-concept and academic achievement expectancies. This instrument was designed to collect information about incoming students' attitudes, behaviors, characteristics, and expectations related to academic success and persistence after the Freshman Year. The Freshman Survey consists of nine domains designed to measure the attitudes, behaviors, characteristics, and expectations. The survey has been in use since the Fall of 1988 and has been validated as identifying those noncognitive variables that affect academic success and persistence. Over the past eleven years or so, the survey has undergone slight revisions with the total number of questions increasing from 120 to 142, but the basic
format and content have remained the same. The same version of the survey was used for incoming freshmen in the Fall of 1996 as well as for incoming freshmen in the Fall of 1997. The 1996-1998 time frame was chosen because this was a period in which the Freshmen Survey did not experience any major revisions, which minimizes the possibility of an instrumentation threat to internal validity. The 142 items can be separated into the following domains:

1. Deciding to attend college: 11 items are rated on a scale of zero (very important) to two (not important).

2. Reasons for choosing this particular college: 26 items are rated on a scale of zero (very important) to two (not important).

3. Numbers of hours spent per week in various activities during senior year in high school: 11 items are rated on a scale of zero (zero hours) to four (more than 20 hours).

4. Frequency of various social and academic activities/experiences during senior year in high school: eight items are rated on a scale of zero (frequently) to two (never).

5. Self-ratings of abilities and traits compared to the average peer: 13 items are rated on a scale of zero (top 10%) to four (lowest 10%).

6. Attitudes about being a college student: 10 items are rated on a scale of zero (strongly agree) to five (strongly disagree).

7. Self-descriptions: 10 items are rated on a scale of zero (strongly agree) to five (strongly disagree).

8. Predictions with regards to academic success: two items are with multiple choice options, and 19 other items rated on a scale of zero (very good chance) to two (no
chance).

9 Predictions about involvement in various cultural, social, and academic activities while in college; 22 items are rated on a scale of zero (never) to three (very often), and one item with a multiple choice option.

10 Making a college choice, nine items are multiple choice options.

The ABILTOT subsection is a measure of academic self-concept. Academic self-concept is measured by (a) general academic ability, (b) mathematical ability, (c) reading comprehension, (d) study skills, (e) time management skills, and (f) writing ability. These six items are taken from section (E) of the Survey (Self-ratings of abilities and traits). The ABILTOT subsection has a score range of 0 to 24. The observed range of scores for African-American students in this subsection is 0 to 21.

The sample mean score for the ABILTOT subsection for African American freshmen having a cumulative GPA ≥ 2.0 was ($\bar{x} = 20.27$, $SD=2.73$, $N=365$). The sample mean score for the ABILTOT subsection for African American freshmen having a cumulative GPA ≥ 2.0 was ($\bar{x} = 19.86$, $SD=3.08$, $N=273$). A summary of these data is represented in Table 3.
Table 3

Sample Mean Scores for the ABILTOT Subsection by GPA

<table>
<thead>
<tr>
<th>ABILTOT</th>
<th>African-American Freshmen &gt; 2.0</th>
<th>African-American Freshmen &lt; 2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>365</td>
<td>273</td>
</tr>
<tr>
<td>$\bar{x}$</td>
<td>20.27</td>
<td>19.86</td>
</tr>
<tr>
<td>SD</td>
<td>2.73</td>
<td>3.08</td>
</tr>
</tbody>
</table>

The INVTOT subsection is a measure of academic achievement expectancies.

Academic achievement expectancies are measured by (a) use the library to study; (b) talk with faculty informally; (c) think about course material; (d) participate in cultural events; (e) use the University Center; (f) use campus athletic facilities; (g) participate in campus clubs; (h) read articles or books or have conversations with others; (I) make friends with students who are different; (j) have serious discussions with students; (k) use what you learn in your classes; and (l) actively participate in your classes. These twelve items are taken from section (I) of the Survey (Predictions about involvement in various cultural, social, and academic activities while in college). The INVTOT subsection has a score range of 0 to 36. The observed range of scores for African-American students in this subsection is 4 to 36.

The sample mean score for the INVTOT subsection for African American freshmen having a cumulative GPA > 2.0 was ($\bar{x} = 22.01$, $SD = 4.99$, $N = 354$). The sample
mean score for the INVTOT subsection for African American freshmen having a cumulative GPA < 2.0 was (\(\bar{x} = 21.77, \text{SD}=5.07, N=260\)), as shown in Table 4.

<table>
<thead>
<tr>
<th>INVTOT</th>
<th>African-American Freshmen &gt; 2.0</th>
<th>African-American Freshmen &lt; 2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>354</td>
<td>260</td>
</tr>
<tr>
<td>(\bar{x})</td>
<td>22.01</td>
<td>21.77</td>
</tr>
<tr>
<td>SD</td>
<td>4.99</td>
<td>5.07</td>
</tr>
</tbody>
</table>

The sample mean score for African American freshmen for the “Abilities and Traits” (ABILTOT) subsection (\(\bar{x} = 20.14, \text{SD}=2.75, N=643\)) was comparable to the sample mean score for non-African American freshmen in the sample (\(\bar{x} = 20.46, \text{SD}=2.89, N=2186\)). A summary of these data is shown in Table 5.

<table>
<thead>
<tr>
<th>ABILTOT</th>
<th>African-American Freshmen</th>
<th>Non-African-American Freshmen</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>643</td>
<td>2186</td>
</tr>
<tr>
<td>(\bar{x})</td>
<td>20.14</td>
<td>20.46</td>
</tr>
</tbody>
</table>

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The sample mean score for African-American freshmen for the “Predictions about your involvement with this university” (INVTOT) subsection ($\bar{x} = 23.59$, $SD = 5.35$, $N = 618$) very closely approximated the sample mean score for non-African American freshmen in the sample ($\bar{x} = 22.17$, $SD = 5.44$, $N = 2134$), as represented in Table 6.

<table>
<thead>
<tr>
<th>INVTOT</th>
<th>African-American Freshmen</th>
<th>Non-African-American Freshmen</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>618</td>
<td>2134</td>
</tr>
<tr>
<td>$\bar{x}$</td>
<td>23.59</td>
<td>22.17</td>
</tr>
<tr>
<td>$SD$</td>
<td>5.35</td>
<td>5.44</td>
</tr>
</tbody>
</table>

The sample mean score for the ABILTOT subsection for African American
freshmen who were retained was ($\bar{x} = 20.22$, SD=2.90, N=470). The sample mean score for the ABILTOT subsection for African American freshmen who were not retained was ($\bar{x} = 19.74$, SD=2.86, N=175), as represented in Table 7.

### Table 7

Sample Mean Scores for the ABILTOT Subsection by Retention Status

<table>
<thead>
<tr>
<th>ABILTOT</th>
<th>African-American Freshmen Retained</th>
<th>African-American Freshmen Not Retained</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>470</td>
<td>175</td>
</tr>
<tr>
<td>$\bar{x}$</td>
<td>20.22</td>
<td>19.74</td>
</tr>
<tr>
<td>SD</td>
<td>2.90</td>
<td>2.86</td>
</tr>
</tbody>
</table>

The sample mean score for the INVTOT subsection for African American freshmen who were retained was ($\bar{x} = 22.07$, SD=5.06, N=454). The sample mean score for the INVTOT subsection for African American freshmen who were not retained was ($\bar{x} = 21.47$, SD=4.88, N=167). Refer to Table 8 for a summary of these data.

### Table 8

Sample Mean Scores for the INVTOT Subsection by Retention Status

<table>
<thead>
<tr>
<th>INVTOT</th>
<th>African-American Freshmen Retained</th>
<th>African-American Freshmen Not Retained</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>454</td>
<td>167</td>
</tr>
</tbody>
</table>
The sample mean score for number of cumulative credit hours for African American freshmen who were retained was ($\bar{x} = 23.56, SD=6.77, N=472$). The sample mean score for number of cumulative credit hours for African American freshmen who were not retained was ($\bar{x} = 11.98, SD=8.34, N=174$). See Table 9.

<table>
<thead>
<tr>
<th>Table 8 (Continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td>INVTOT</td>
</tr>
<tr>
<td>$\bar{x}$</td>
</tr>
<tr>
<td>SD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 9</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sample Mean Scores for Number of Cumulative Credit Hours by Retention Status</strong></td>
</tr>
<tr>
<td>Cumulative Credit Hours</td>
</tr>
<tr>
<td>$n$</td>
</tr>
<tr>
<td>$\bar{x}$</td>
</tr>
<tr>
<td>SD</td>
</tr>
</tbody>
</table>

The sample mean score for number of cumulative credit hours for African American freshmen who were retained was ($\bar{x} = 23.56, SD=6.77, N=472$). The sample mean score for number of cumulative credit hours for African American freshmen who were not retained was ($\bar{x} = 11.98, SD=8.34, N=174$). See Table 9.
American freshmen having a cumulative GPA $> 2.0$ was ($\bar{x} = 25.25$, $SD = 6.27$, $N = 367$).

The sample mean score for number of cumulative credit hours for African American freshmen having a cumulative GPA $< 2.0$ was ($\bar{x} = 13.99$, $SD = 7.73$, $N = 273$). A summary representation is shown in Table 10.

<table>
<thead>
<tr>
<th>Table 10</th>
<th>Sample Mean Scores for Number of Cumulative Credit Hours by GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative Credit Hours</td>
<td>African-American Freshmen $&gt; 2.0$</td>
</tr>
<tr>
<td>$n$</td>
<td>367</td>
</tr>
<tr>
<td>$\bar{x}$</td>
<td>25.25</td>
</tr>
<tr>
<td>$SD$</td>
<td>6.27</td>
</tr>
</tbody>
</table>

To determine if African-American and non-African-American students' Freshman Survey scores have approximately equal variances and satisfy the assumption of homoscedasticity, the researcher referred to a critical values for the F-max statistic table (Pearson & Hartley, 1958). The critical value is obtained by taking the larger variance and dividing it by the smaller variance. For example, in Table 5, 643 African-American students have a standard deviation of 2.75 on the ABILTOT subsection while 2186 non-African-American students have a standard deviation of 2.89 on that subsection: thus, $2.89^2/2.75^2$ yields a critical value of 1.104. For the INVTOT subsection, 618 African-
American students have a standard deviation of 5.35 while the 2134 non African-
American students have a standard deviation of 5.44 on that subsection; consequently,
$5.44^2/5.35^2$ yields a critical value of 1.033. At the .05 level and for number samples above
60, the critical value is 1.670. No values obtained in this study exceeded the critical value
of 1.670; thus, the assumption of homoscedasticity has been satisfied.

African-American students’ Freshman Survey scores for the ABILTOT and
INVTOT subsections, however, do not have a normal distribution. When scores have a
normal distribution, the mean, median, and mode are located at approximately the same
point in the distribution (Borg & Gall, 1996, p. 177). In this study, in the ABILTOT
subsection, there is a mean of 20.14, a median of 20.00, and a mode of 21.00. While this
might seem to satisfy Borg and Gall’s (1996) definition of a normal distribution, the
kurtosis statistic has a value of 3.375.

Kurtosis is a measure of the extent to which observations cluster around a central
point (Loether & McTavish, 1993). For a normal distribution, the value of the kurtosis
statistic is 0. Positive kurtosis indicates observations (scores) cluster more and have
longer tails than those in the normal distribution (See Figure 1). In the INVTOT
subsection, there is a mean of 21.91, a median of 22.00, and a mode of 22.00. Although
this would seem to satisfy Borg and Gall’s (1996) definition of a normal distribution, the
kurtosis statistic has a value of -.282. A negative kurtosis indicates that observations
(scores) cluster less and have shorter tails than those in a normal distribution (See Figure
2). Though the scores are not normally distributed, this is not a critical issue because of
the large N in this study (N=647). Loether and McTavish (1993) note that the violation of
the assumption of a normal distribution becomes less critical as N gets larger (100 or more cases); in addition, Loether and McTavish also suggest that at the .05 level of significance, the normal approximation of the t-distribution is satisfactory even when N is as small as 10.
Figure 1

Distribution of Scores for the ABILTOT Subsection

ABILTOT

Std. Dev = 2.90
Mean = 20.1
N = 645.00
Figure 2

Distribution of Scores for the INVTOT (Academic Achievement Expectancies) Subsection

academic achievement expectancies

Std. Dev = 5.02
Mean = 21.9
N = 621.00
Research Questions, Hypotheses, and Null Hypotheses

Data on academic self-concept and achievement expectancies were collected from students using the University's Freshman Survey (Calliotte & Pickering, 1988). Academic self-concept is a student's conception of his or her own academic ability as it relates to school achievement. Achievement expectancies are defined as a student's belief that positive academic behaviors will lead to positive outcomes (i.e., good grades, praise, recognition, etc.). With this in mind, a complete list of all research questions, hypotheses, and null hypotheses is shown in Table 11.

The level of significance that this researcher selected prior to data collection to evaluate each of the following six hypotheses was .05. T-tests and correlation analyses are used to report significant relationships among these variables. One of the advantages of correlation analysis is that it is a process which allows the testing of many hypotheses simultaneously on the same sample of subjects without inflating the experimentwise alpha level, which helps prevent the researcher from committing a Type I error of erroneously rejecting a true null hypotheses (Campbell & Tucker, 1992). Borg and Gall (1996) espouse the 95% confidence level used in rejecting false null hypotheses as the convention of scientific research. Gay (1996), however, cautions that when selecting an alpha level, a researcher must consider his hypotheses and the relative seriousness of committing a Type I error versus a Type II error.
Table 11

Academic Self-Concept and Academic Achievement Expectancies Research Questions, Hypotheses, and Null Hypotheses in Table Form

<table>
<thead>
<tr>
<th>Research Questions, Hypotheses, and Null Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Self-Concept</td>
</tr>
<tr>
<td>1. Is there a relationship between the academic self-concept and cumulative college GPA of African-American freshmen students?</td>
</tr>
<tr>
<td>( H_1 ) There will be a relationship between the academic self-concept and cumulative college GPA of African-American freshmen students.</td>
</tr>
<tr>
<td>( H_0 ) There will be no relationship between the academic self-concept and cumulative college GPA of African-American freshmen students.</td>
</tr>
<tr>
<td>2. Is there a relationship between the academic self-concept and cumulative credits earned of African-American freshmen students?</td>
</tr>
<tr>
<td>( H_1 ) There will be a relationship between the academic self-concept and cumulative credits earned of African-American freshmen students.</td>
</tr>
<tr>
<td>( H_0 ) There will be no relationship between the academic self-concept and cumulative credits earned of African-American freshmen students.</td>
</tr>
<tr>
<td>3. Is there a relationship between the academic self-concept and persistence rate of African-American freshmen students?</td>
</tr>
<tr>
<td>( H_1 ) There will be a relationship between the academic self-concept and persistence rate of African-American freshmen students.</td>
</tr>
<tr>
<td>( H_0 ) There will be no relationship between the academic self-concept and persistence rate of African-American freshmen students.</td>
</tr>
</tbody>
</table>

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Table 11 (Continued)

Academic Self-Concept and Achievement Expectancies Research Questions, Hypotheses, and Null Hypotheses in Table Form

<table>
<thead>
<tr>
<th>Research Questions, Hypotheses, and Null Hypotheses</th>
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<tbody>
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</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Hypothesis 1

Hypothesis 1 stated that there would be no relationship between the academic self-concept and cumulative college GPA of African-American freshmen students. A statistically significant Pearson product-moment correlation coefficient $r = 0.092$ between these two variables was found at the .05 level. For degrees of freedom (df) = 1, 642 at the .05 level, a critical F value of 3.84 is indicated. The F value of 5.502 in the ANOVA table (See Table 12) for Hypothesis 1 exceeds the critical F value of 3.84.

A significant relationship was found, but this relationship is very small, with academic self-concept explaining less than 1% ($0.092^2 \times 100$) of the variance in the cumulative college GPA variable. This very small but statistically significant relationship is caused not because of a major relationship between the two variables, but because of a precise statistic caused by the large sample size (N=643). Since the standard error of the mean is determined by dividing the standard error by the square root of the sample size, the width of the interval estimate decreases as $n$ increases (Kachigan, 1986), because of this, it is much easier to reject a false null hypothesis than it would be when analyzing a smaller sample size (Borg & Gall, 1996, p. 187); therefore, the researcher rejected the null hypothesis in the case of Hypothesis 1.
Table 12

ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>4.174</td>
<td>1</td>
<td>4.174</td>
<td>5.502</td>
<td>0.019</td>
</tr>
<tr>
<td>Residual</td>
<td>487.008</td>
<td>642</td>
<td>759</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>491.182</td>
<td>643</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Academic Self-Concept
b. Dependent Variable: Cumulative GPA

Hypothesis 2

Hypothesis 2 stated that there would be no relationship between the academic self-concept and cumulative credits earned of African-American freshmen students. A Pearson product-moment correlation between these two variables revealed a statistically significant coefficient of $r = 0.136$ at the .05 level. This low but significant correlation does not support Hypothesis 2. For degrees of freedom (df) = 1, 642 at the .05 level, a critical F value of 3.84 is indicated. The F value of 12.070 in the ANOVA table (See Table 13) for Hypothesis 2 exceeds the critical F value of 3.84.

Though 1.8% ($0.136^2 \times 100$) is a particularly small explanation of variance shared between the two variables and does not indicate a major relationship, a precise statistic, caused by the large sample, has made the relationship needed to reject the null hypothesis.
much smaller (Borg & Gall, 1996, p.187). Hypothesis 2 is rejected.

### Table 13

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>933.816</td>
<td>1</td>
<td>526.248</td>
<td>12.070</td>
<td>001</td>
</tr>
<tr>
<td>Residual</td>
<td>49670.678</td>
<td>642</td>
<td>77.369</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>50604.494</td>
<td>643</td>
<td>77.369</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Academic Self-Concept  
b. Dependent Variable: Cumulative hours earned

**Hypothesis 3**

Hypothesis 3 posited that there would be no difference between the academic self-concept and persistence rate of those African-American freshmen students who were retained and those who were not retained. A T-test for equality of means indicated a significance level of .061, which was not a statistically significant amount of difference between the two groups of students. For 643 degrees of freedom at the .05 level, the critical region for the T statistic lies between -1.960 and +1.960. A T-test analysis for Hypothesis 3 generated a T statistic of -1.873. This statistic of -1.873 does not exceed the critical region so there is not enough evidence to reject the null Hypothesis 3. The assumptions underlying the T-test have been met, including the assumption of
independence (i.e., those African-American freshmen students who were not retained are an independent sample of those African-American freshmen students who were retained).

The most important T-test assumption, however, is homogeneity of variance because violating this assumption can negate any meaningful interpretation of the data from an independent measures experiment (Gravetter & Wallnau, 1992). Group statistics of the retention status of those African-American freshmen students who were retained and not retained are shown in Table 14. As such, the researcher does not reject Hypothesis 3 as a false null hypothesis.

Table 14

<table>
<thead>
<tr>
<th>Group Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retention Status</td>
</tr>
<tr>
<td>Academic Self-Concept</td>
</tr>
<tr>
<td>Not Retained</td>
</tr>
<tr>
<td>Retained</td>
</tr>
</tbody>
</table>

Hypothesis 4

Hypothesis 4 posited that there would be no relationship between the academic achievement expectancies and cumulative college GPA of African-American freshmen students. A coefficient of $r = .046$ at the .05 level was revealed in a Pearson correlation, thus, the independent academic achievement expectancies variable explains only 0.2% of
the variance in the dependent cumulative college GPA variable. For degrees of freedom
(df) = 1, 618 at the .05 level, a critical F value of 3.84 is indicated. The F value of 1.310
in the ANOVA table (See Table 15) for Hypothesis 4 does not equal or exceed the critical
F value of 3.84. There is not a statistically significant amount of shared variance, so there
is not enough evidence to reject null Hypothesis 4.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1.006</td>
<td>1</td>
<td>1.006</td>
<td>1.310</td>
<td>253</td>
</tr>
<tr>
<td>Residual</td>
<td>474.630</td>
<td>618</td>
<td>.768</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>475.636</td>
<td>619</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Academic Achievement Expectancies
b. Dependent Variable: Cumulative GPA

Hypothesis 5

Hypothesis 5 stated that there would be no relationship between the academic
achievement expectancies and cumulative credits earned of African-American freshmen
students. A Pearson product-moment correlation coefficient of $r = .059$ at the .05 level was
found, accounting for only 0.3% of the variance. This 0.3% of the variance that is
explained by cumulative credits earned was not a statistically significant amount of
variance. For degrees of freedom (df) = 1, 618 at the .05 level, a critical F value of 3.84 is indicated. The F value of 2.124 in the ANOVA table (See Table 16) for Hypothesis 5 does not exceed the critical F value of 3.84; consequently, the researcher does not have enough evidence to reject null Hypothesis 5.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>168.135</td>
<td>1</td>
<td>168.135</td>
<td>2.124</td>
<td>.146</td>
</tr>
<tr>
<td>Residual</td>
<td>48928.843</td>
<td>618</td>
<td>79.173</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>49096.977</td>
<td>619</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Academic Achievement Expectancies
b. Dependent Variable: Cumulative Hours Earned

Hypothesis 6

Hypothesis 6 posited that there would be no difference between the academic achievement expectancies and persistence rate of those African-American freshmen students who were retained and those who were not retained. A T-test for equality of means indicated a significance level of .190, which was not a statistically significant amount of difference between the two variables. For 619 degrees of freedom at the .05
level, the critical region for the T statistic lies between -1.960 and +1.960. T-test analysis for Hypothesis 6 generated a T statistic of -1.312. This statistic of -1.312 does not exceed the critical region. There is not enough evidence to reject the null Hypothesis 6 as false. Group statistics of the retention status of those African-American freshmen students who were retained and not retained are shown in Table 17.

Table 17

<table>
<thead>
<tr>
<th>Retention Status</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Ach. Expectancies</td>
<td>Not Retained</td>
<td>167</td>
<td>21.4790</td>
<td>4.8889</td>
</tr>
<tr>
<td></td>
<td>Retained</td>
<td>454</td>
<td>22.0749</td>
<td>5.0668</td>
</tr>
</tbody>
</table>

Summary

In Chapter 4, the results of analyses of subject demographics, descriptive statistics for measurement of instruments, demographic data, and hypotheses tests done by the researcher were reported. Though some results were anticipated based on findings in the literature review, some analyses were completely unexpected.

The relationship between academic self-concept and cumulative college GPA was a significant one. This significant relationship was consistent with what was reported in
the literature review (House, 1996). The academic self-concept predictor variable accounted for 0.8% of the variance in the cumulative GPA criterion variable. It was able to detect this small significance because of the large sample size.

The relationship between academic self-concept and cumulative credits earned was also a significant one. A significant correlation between these two variables, as was the case in Hypothesis 1, was also consistent with previous literature findings (Gordon, 1989; House, 1993a; Vollmer, 1976).

A T-test did not yield any significant differences in Hypothesis 3 in the means of the academic self-concept of those African-American students who were retained for the Fall semester of their sophomore year and the academic self-concept of those African-American students who were not retained. There was not enough evidence to reject the null hypothesis which is not consistent with literature findings, where Gerdes and Mallinkrodt (1994) found academic self-concept to be a significant predictor of persistence.

A significant relationship was not found between the academic achievement expectancies and cumulative college GPA of African-American college students. These findings, though, are not consistent with Survey of the Related Literature findings where these two variables showed significant correlations with one another (House, 1992; Prillerman & Myers, 1989).

In the case of Hypothesis 5, there was no statistically significant relationship identified between the academic achievement expectancies and the cumulative credits earned of African-American college students. Academic achievement expectancies
accounted for 0.3% of the variance in the cumulative credits earned dependent variable. This is inconsistent with literature review findings which showed academic achievement expectancies being significantly related to cumulative credits earned, in addition to academic self-concept and cumulative college GPA (House, 1995, 1995a; Sowa, Thomas, & Bennett, 1989).

A T-test of Hypothesis 6 showed no significant difference in the means of the academic achievement expectancies of African-American freshmen students who were retained and those African-American students who were not retained. Though the null Hypothesis 6 was not rejected because evidence did not support such a rejection, this finding is neither consistent with findings for the Freshman class overall (N=2760) at this university, nor the literature review findings (House, 1993, 1993a, 1994).
CHAPTER V
DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

The results of this causal comparative study have addressed the research questions that were first posed in Chapter I. The literature shows that, traditionally, academic achievement and persistence have been predicted from cognitive variables such as SAT scores and high school grade point average (HSGPA) (Pantages & Creeden, 1978). Other studies, however, have shown that cognitive variables alone are less effective in predicting academic performance for African-American students (Breland, 1978; Sedlacek & Adams-Gaston, 1992; Wilson, 1981). This study attempted to determine some of the student noncognitive characteristics which correlate with the academic achievement and persistence of African-American students who are attending a predominately white institution. Previous findings have suggested that African-American students' attrition rates to be five-to-eight times greater than those for white students on the same campuses (Allen, 1985), and while much of the African-American student attrition research has been conceptualized with white students serving as models or controls (Higher Education Research Institute, 1982), this study does not attempt to compare black and white student persisters.

Comparisons between black and white students are interesting studies. Blacks and whites have coexisted for at least four hundred years in this country in varying forms, but statistical differences on the variables such as achievement, income, etc. are usually very pronounced. For instance, in looking at current literature, we in the academic community know that whites score higher than African-Americans on the SAT on both the verbal and
We know that in 1996, there was still a more than 100 point difference between those scores (Nettles, Pena, & Freeman, 1999 [eighty-six points in this study]). We know that white students have much less difficulty adjusting to college than African-Americans (Pascarella & Terenzini, 1980; Tinto, 1975, 1987; Tracey & Sedlacek, 1985). We know that white students are far less likely to experience academic hardship than African-American students (Fleming, 1984; Giles-Gee, 1989; Sherman, T., Giles, M., and Williams-Green, J., 1994). We know that white students persist at a rate that is much higher than for African-American students (Arbona & Novy, 1990; Clagett, 1998; Keller, Deneen, & Magallan, 1991; Lichtman, Bass, & Ager, 1989; Stoecker, Pascarella, & Wolfe, 1988; The Chronicle of Higher Education, August, 1992; Trippi & Baker, 1989). We know that white students are less likely to be first-generation students than African-American students (Nunez & Cuccaro-Alamin, 1998). We know that whites in general are about twice as likely to hold higher-paying, more prestigious jobs than African Americans ("New Poll." 2001). We know that whites are more than twice as likely to be adequately employed than African Americans ("New Poll," 2001).

The results of black/white achievement studies (academic and otherwise) raise eyebrows and draw wide interest and discussion. And though procedures such as statistical covariation, matching, and the like as controls represent sound attempts to "level the playing field," this researcher feels this is simply not enough to compensate for the vast, real-life, day-to-day differences that exist between life and experience as an African American and life and experience as a white American; it is like comparing apples
and oranges. As a result, this researcher chose to focus solely on intragroup diversity
among African-American students themselves, as Allen (1985), Fleming (1981), Gurin and
(1983), and Tinto (1982) all note a need for such a focus.

In this process, though, the results of this study have broached new issues. This
final chapter, Chapter 5, will address these issues and offer suggestions for future
research.

Research Questions

The primary research questions that were advanced as hypotheses were as follows:

1. Is there a significant relationship between the academic self-concept and cumulative
college GPA of African-American freshmen students?

2. Is there a significant relationship between the academic self-concept and cumulative
credits earned of African-American freshmen students?

3. Is there a significant relationship between the academic self-concept and persistence
rate of African-American freshmen students?

4. Is there a significant relationship between the academic achievement expectancies and
cumulative college GPA of African-American freshmen students?

5. Is there a significant relationship between the academic achievement expectancies and
cumulative credits earned of African-American freshmen students?

6. Is there a significant relationship between the academic achievement expectancies and
persistence rate of African-American freshmen students?

Concerning the relationship between academic self-concept and cumulative
freshman GPA, the literature review implies a significant relationship between these variables (Bandura, 1982; Bandura, A., Adams, N., Hardy, A., and Howells, G., 1980; Chambliss & Murray, 1979a, 1979b; Greene, 1982, 1985; House, 1992, 1993; Gerdes & Mallinkrodt, 1994; Mboya, 1986; Schunk, 1984; Shell, 1985; and Song & Hattie, 1984, 1985). The findings of this study, though involving weak support, are consistent with literature findings.

These findings could be the result of several factors. For one, House (1994) noted that academic self-concept is one of the most commonly studied noncognitive variables because it tends to explain large amounts of variance in retention studies. That the academic self-concept variable is a salient predictor of cumulative college GPA is not surprising. For students who have high academic self-concepts, these attitudes are significantly related to persistence (Astin, 1993). Moreover, students who had high academic self-concepts were viewed by other students in the same way, even when these students' actual academic performance belied this fact (Jussim, et al., 1987). Cunningham (1993), in a previous study of noncognitive variables, at the same university where this present study was conducted found that the academic performance of a number of freshmen student-athletes was not supported by their high academic self-concept ratings on the Freshmen Survey (Calliotte & Pickering, 1988). Cunningham (1993) proffered that the level of confidence resulting from athletic success may have led these freshmen student-athletes to overestimate their potential for academic success.

Positive beliefs about themselves put students in a positive frame of mind. Not only in the research literature does this edict hold true, but paradigms of belief and success
also abound in verse and in song. In the popular movie of a few years ago, *Space Jam*, singer R. Kelly sings a very touching song, *I Believe I Can Fly*. One of the most poignant verses in the song is “If I can see it, then I can do it. If I just believe it, then there’s nothing to it”(http://carlos65.freeyellow.com/lyricsrk/rk_16.txt). More fittingly, the public school system in the city where this study took place has the motto of “Believe! Achieve! Succeed!” And as the biblical text states, “As a man thinketh in his heart, so is he” (Proverbs 23:7). It is very clear to this researcher that a relationship exists between positive thought processes and success, academic or otherwise.

The correlation between academic self-concept and cumulative credits earned was also a significant one. Since cumulative credits earned is an operand of academic achievement in this study, it is noteworthy that several studies that confirmed significant relationships between academic self-concept and cumulative GPA also confirmed significant relationships between academic self-concept and cumulative credits earned (Gerardi, 1990; Wilhite, 1990). These results, again, suggest what a strong, salient variable that academic self-concept is as it correlates with the achievement and success of African-American college freshmen students. As indicated in Chapter 4, it has a stronger correlation with cumulative credits earned than it does with cumulative college GPA.

That cumulative credits earned showed a stronger correlation to academic self-concept than did cumulative college GPA requires discussion. It appears to this researcher that cumulative credits earned is a more salient variable than cumulative college GPA; it tells a more complete story. Students who know that they are not doing well (or lack the self-concept to do well) by the mid-term may elect to drop courses; consequently,
their acceptable GPAs (> 2.00) may belie their low cumulative credit hours total. For example, it is conceivable that a student could possess a 2.3 GPA at the end of his freshman year, yet have only 12 or 13 total hours. Another student, however, may possess a 1.7 cumulative but may have upwards of 25 hours or so. This researcher postulates that the latter of these freshmen students might be a little more goal-oriented and self-regulated than the former. Trawick (1988) noted that goal-oriented students exhibit positive attributional patterns for both success and failure experiences. In addition, Stark, Shaw, and Lowther (1989) noted that goal setters’ performance effects (e.g. cumulative hours totals) are much more pronounced than the performance effects of students who are not goal oriented.

No significant relationship was found to exist between academic self-concept and persistence of African-American students. While these findings support this study’s hypothesis, this is not the case in the literature at large. Notably, Ethington (1990), Rowe and Smith (1990), Tinto (1986), and Tracey and Sedlacek (1984, 1985, 1986, 1987) were able to confirm in numerous studies the power of a noncognitive variable such as academic self-concept to predict persistence, sometimes for up to six years after initial matriculation.

That there is no significant relationship in this particular study between academic self-concept and persistence of African-American students might be a good thing. It suggests two things. Number one, this finding could possibly speak to the self-confidence of the African-American students at this particular university. It is possible, too, that the African-American students in this particular study, successful and nonsuccessful alike, may be very closely similar in backgrounds, thus, negating any significant differences. Another
plausible explanation is that while white students may succeed in college because of academic self-concept, African-American students may succeed in college in spite of it. Many African-American students, including this researcher, have entered college as freshmen without goals, without direction, and without self-confidence, only to find that once they got there that they could compete with other students; perhaps as their stature at the university grew, so did their self-confidence. This could explain Allen's (1985) findings in which he attributes to an extremely high degree of academic self-confidence the persistence and subsequent graduation of African-American students at predominately white institutions.

Second, the university under study does have in place early intervention programs designed to facilitate African-American students' adjustment and transition to college life, which Ferguson (1990), Gold (1995), Rowser (1997), and Seidman (1996) suggest as an excellent practice. For instance, this university, in 1991, established an African-American Cultural Center to assist academic and non-academic units in meeting the challenges of service delivery to African-American students. The Cultural Center provides a plethora of programs and services which acknowledge the intellectual and social heterogeneity among African-American students and seek to foster interest in African-American culture as a major force in a pluralistic society (http://www.odu.edu/AACC). Some of the programs provided by the university include the Big Brother/Big Sister Program, a volunteer mentoring program which pairs upperclassmen with incoming freshmen and transfer students to assist these new students with learning about the institution and the environment (http://www.odu.edu/AACC). There is also the Partnerships For Success.
Program, an initiative that matches faculty or faculty administrators with African-American students (http://www.odu.edu/AACC). Another program is the African-American Male Summit/Sisterhood Conference, an annual two-day summit that includes workshops and cultural events that reflect the experience of the African-American student at this university (http://www.odu.edu/AACC).

Himelstein (1992) and Parker (1998) agree. They submit that institutions that are most successful in retaining their African-American students are those who proactively identify these students and deliver retention services to them almost as soon as they set foot on the campus.

There was not a significant correlation between academic achievement expectancies of successful and nonsuccessful students as measured by cumulative college GPA. This insignificant amount of shared variance supports the null hypothesis put forth by the investigator. There were, however, more studies in the literature review that refuted this evidence than those that supported it. J. Daniel House (1992, 1993, 1993a, 1994, 1995, 1995a, 1996) has done much to advance the theory of the dual aspect of academic achievement expectancies and academic self-concept working together as a motivator and indicator of performance to form the self-regulatory system. It is surprising because this result was not expected. Vollmer (1986) and Gordon (1989) both noted the significant relationships between academic achievement expectancies and grades. What cannot be over-stressed here is that a student who has a solid belief system in place puts that student in a good life's position. Perhaps in the case of this study's students, a strong homogenous or monolithic composition of the sample in terms of basic beliefs as African
Americans may have diminished any significant relationships. Sometimes, it does not matter what one believes, but that one believes in something.

There was also not a significant relationship between the academic achievement expectancies and the cumulative credits earned of successful and nonsuccessful African-American freshmen students. While these findings support the null hypothesis that was advanced in Chapter 1, it does not support literature review findings (House, 1993a, 1996). While many of the research studies in the previous paragraph confirmed significant relationships between academic achievement expectancies and cumulative college GPA, few of them utilized cumulative credit hours as a measure of retention. As this researcher has mentioned, though, one must look at cumulative college GPA and cumulative credits earned together, as twins so to speak. That is when a clear picture emerges detailing the actual progress of a student. The variance shared between academic achievement expectancies and cumulative credits earned in this particular study was slightly higher (1.5%) than the variance shared between academic achievement expectancies and cumulative college GPA. In this study, a significant relationship was not found between the academic achievement expectancies and persistence rate of African-American freshmen students. The .190 r value in this study did not approach a level of significance to suggest that the academic expectancy beliefs of the students in this study do indeed exert an influence on their academic performance and thereby increase their efforts in persistence behavior. These findings, however, are inconsistent with the findings of those such as DeVolder and Lens (1982) and Shell (1985) who found strong, significant relationships between academic achievement expectancies and persistence in their studies.
Conclusions

This study has confirmed that for African-American freshmen students who entered a large, state-supported, southeastern predominantly white institution during the 1996-97 and 1997-98 academic school year, academic achievement expectancies contributed very little to these students’ cumulative GPAs, cumulative credit hours earned, or persistence status. This study did, however, offer a few valuable pieces of information.

Academic self-concept, a noncognitive variable, was found to be significantly related to cumulative college GPA and cumulative credits earned. Admittedly, while the relationships between academic self-concept and these two measures of academic achievement were weak ones, they were nonetheless significant, which was consistent with literature review findings. This is useful information for academic success practitioners, advisors, and the like. It should suggest to them that they can continue to be confident that they can rely on academic self-concept as a good, noncognitive predictor of academic success. Gone should be the days when admissions counselors continue to rely primarily on the SAT score alone to predict success for African-American students.

African-American students undoubtedly benefit from a belief system that is wholesome, positive, and beneficial to themselves and their kind. Moreover, when these students attend colleges and universities that take a maternal approach, if you will, to mentoring, then it should be difficult for these students not to succeed. Because many African-American students come from homes that are dominated by a matriarch (e.g., mother, grandmother, aunt, or older sister), these students benefit greatly from institutions of higher learning that provide a nurturing environment. African-American students,
particularly those on majority white campuses, need to be nurtured, but not necessarily coddled. This nurturing provides these students with the efficacy to do much more in life beyond the realm of academia. It provides for them a life of fulfillment and productivity as a student, a citizen, and as an individual.

The lack of a strong correlation between the noncognitive variable of academic achievement expectancies and cumulative GPA, cumulative credit hours earned, and persistence was completely unexpected. Upon entering college, many students have great academic expectations of themselves, some of which may or may not be realistic. As a college professor himself, this researcher hears more than any other, of the expectation by students "to graduate in four years." On the contrary, though, in the course of a college career, students are beset with the experiences of having to work to support themselves, having to repeat failed courses, discovering that they are ill-suited for the majors that they have chosen, and having to deal with illness, sickness, the death of loved ones, etc., which necessitate a reexamination of those academic expectations that they set as freshmen. As one can see, there are so many mitigating factors which can preclude students from honoring their initial intentions. In addition, academic achievement expectancies cover an array of behaviors, and it is obvious that these behaviors vary from student to student, school to school, and region to region.

Recommendations for Future Study

This researcher recommends several issues that warrant further research. For one, this study, if possible, should be replicated at a Historically Black College or University (HBCU). Such a study might define further the finite differences among various African-
American student populations. There is such a university in this city which sits near the Central Business District (CBD). It is a leading HBCU in the nation in terms of African-American student enrollment.

Second, this researcher also recommends additional development of noncognitive instruments to continue to assess the academic progress and achievement of African-American students. Some academic behaviors require noncognitive assessments. Continued development of these instruments can keep abreast of the ever-changing attitudes of our ever-changing students.

Finally, though considerable research literature focuses on African-American students in general, a focus should be turned toward the African-American graduate student; that midlife African-American graduate student whose academic experiences at predominately white institutions not only parallel those of his African-American undergraduate counterpart, but who toils with the additional burdens of responsibility, accountability, and ownership that midlife brings, all while successfully persisting to the degree.
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APPENDIX A
FRESHMAN SURVEY

Deciding to Attend College

The purpose of this section is to determine the reasons you chose to attend college after high school. Please indicate how important each of the following reasons was in your decision to go to college.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Very Important</th>
<th>Somewhat Important</th>
<th>Not Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To be able to get a better job.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>2. To broaden my perspectives.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>3. To get away from home.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>4. To be able to make money.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>5. To learn more about things which interest me.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>6. To attain feelings of accomplishment and self-confidence</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>7. To develop and use my athletic skills.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>8. To prepare myself for graduate or professional school</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>9. To participate in college social life.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>10. To develop interpersonal skills</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>11. Could not find anything better to do at this time.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

Choosing this University

In this section we are interested in finding out how and why you chose to attend this university. Please rate the degree of importance you would attach to each of the following items according to the following scale.

<table>
<thead>
<tr>
<th>Item</th>
<th>Very Important</th>
<th>Somewhat Important</th>
<th>Not Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Parents.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Very Important</td>
<td>Somewhat Important</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------------------------------------</td>
<td>----------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>13.</td>
<td>High School counselor or teacher</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>14.</td>
<td>Talking with an on-campus admissions representative from this university.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>15.</td>
<td>High school visits by the admissions staff.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>16.</td>
<td>Students at this university who are your friends or acquaintances.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>17.</td>
<td>A faculty member of this university.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>18.</td>
<td>Recruiting publications from this university.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>19.</td>
<td>Saturday Open House/visitation days.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>20.</td>
<td>This university's good academic reputation.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>21.</td>
<td>I was offered financial aid.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>22.</td>
<td>Cultural diversity.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>23.</td>
<td>I wanted to live near home.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>24.</td>
<td>This university's good social reputation.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>25.</td>
<td>Availability of my chosen major.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>26.</td>
<td>I was not accepted by my higher choice college(s).</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>27.</td>
<td>This university's close location to the beach.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>28.</td>
<td>This university's graduates get good jobs.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>29.</td>
<td>Cost of attending this university.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>30.</td>
<td>Opportunity to work part-time.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>31.</td>
<td>My higher choice college(s) did not offer me financial aid.</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
32. Opportunity to participate in varsity athletics. 

33. The appearance of this university’s campus.

34. Availability of extracurricular activities.

35. Availability of ROTC programs.

36. Most of my friends chose to attend this university.

### High School Experiences

In this section we would like to learn more about your experiences during your LAST YEAR in high school. First, how much time did you spend in each of the following activities during the average week in your LAST YEAR of high school?

<table>
<thead>
<tr>
<th>Activity</th>
<th>0 Hours</th>
<th>1-5 Hours</th>
<th>6-15 Hours</th>
<th>16-20 Hours</th>
<th>20+ Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>37. Studying or doing homework.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>38. Socializing with friends.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>39. Talking with teachers outside of class</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>40. Participating in organized sports.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>41. Exercising on my own.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>42. Partying.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>43. Working for pay.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>44. Participating in organized clubs and groups.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>45. Watching TV</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>46. Doing hobbies.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>47. Participating in religious activities.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
Now, please indicate how frequently you had each of the following experiences during your LAST YEAR in high school according to the following scale.

<table>
<thead>
<tr>
<th>Experience</th>
<th>Frequently</th>
<th>Occasionally</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>48. Failed to complete a homework assignment on time.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>49. Drank alcoholic beverages.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>50. Had difficulty concentrating on assignments.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>51. Made careless mistakes on tests.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>52. Felt overwhelmed by all I had to do.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>53. Was too bored to study.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>54. Felt depressed.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>55. What percentage of your close friends in your high school graduating class chose to attend college this year?</td>
<td>O 0% to 10%</td>
<td>O 11% to 25%</td>
<td>O 26% to 50%</td>
</tr>
</tbody>
</table>

**Abilities and Traits**

In this section, we are interested in learning more about how you would rate yourself on various abilities and traits. Please rate yourself on each of the following abilities or traits compared to the average person your age according to the following scale.

**Academic Abilities and Traits**

<table>
<thead>
<tr>
<th>Ability</th>
<th>Top 10%</th>
<th>Above Average</th>
<th>Average</th>
<th>Below Average</th>
<th>Lowest 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>56. General academic ability</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>57. Mathematical ability</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>58. Reading comprehension</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

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59. Study skills | O | O | O | O | O | O
60. Time management skills | O | O | O | O | O | O
61. Writing ability | O | O | O | O | O | O

### Other Abilities and Traits

62. Drive to achieve | O | O | O | O | O | O
63. Popularity with the opposite sex | O | O | O | O | O | O
64. Leadership ability | O | O | O | O | O | O
65. Physical health | O | O | O | O | O | O
66. Popularity in general | O | O | O | O | O | O
67. Self confidence | O | O | O | O | O | O
68. Interpersonal communication skills | O | O | O | O | O | O

### Attitudes About Being a College Student

Please rate the extent to which you agree with each of the following statements about being a college student.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Moderately Agree</th>
<th>Slightly Agree</th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Slightly Disagree</th>
</tr>
</thead>
</table>
69. It is important to me to be a good student. | O | O | O | O | O | O
70. I expect to work hard at studying in college. | O | O | O | O | O | O
71. I am committed to being an active participant in my college studies. | O | O | O | O | O | O
72. I will be proud to do well academically in college.

73. I admire people who are good students.

74. I find studying fulfilling.

75. I will allow sufficient time for studying.

76. I see myself continuing my education in some way throughout my entire life.

77. I want others to see me as an effective student in college.

78. I feel really motivated to be successful in my college career.

**Self Descriptions * **

Following are a number of statements that reflect various ways in which we can describe ourselves. After reading each statement, one at a time, please answer each item according to the following scale. There are no right or wrong answers, so please make your best judgement. Simply try to rate the extent to which you agree with each statement.

79. It's hard to find a reason for working

80. I don't seem to make decisions by myself

81. I have confusion about who I am

82. I have more ideas than energy

83. I lose my sense of direction

<table>
<thead>
<tr>
<th>72</th>
<th>73</th>
<th>74</th>
<th>75</th>
<th>76</th>
<th>77</th>
<th>78</th>
<th>79</th>
<th>80</th>
<th>81</th>
<th>82</th>
<th>83</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
84. It’s easier for me to start than to finish projects.

85. I don’t seem to get going on anything important.

86. I wonder where my life is headed.

87. I don’t seem to have the drive to get my work done.

88. After a while I lose sight of my goals.

* Items contributed by Dr. Steve B. Robbins.

Predictions About Your Academic Success

In this section, we are interested in your predictions about how successful you will be in your career at this university. Please select the best answer to each question.

89. About 50% of this university’s students typically leave before receiving a degree. If this should happen to you, which of the following do you think would be the MOST LIKELY cause?

   O I am absolutely certain that I will obtain a degree
   O To accept a good job
   O To enter military service
   O It would cost more than my family could afford
   O To get married
   O Disinterested in study
   O Lack of academic ability
   O Inefficient reading or other study skills
90. Please check the one description below that you feel best represents your career plans at this time.

- O I have NOT made a career choice at this time and do not feel particularly concerned or worried about it.
- O I have NOT made a career choice and I am concerned about it. I would like to make a decision soon and need some assistance to do so.
- O I have chosen a career and although I have not investigated it or other career alternatives thoroughly, I think I would like it.
- O I have investigated a number of careers and have selected one. I know quite a lot about this career including the kinds of training or education required and the outlook for jobs in the future.

How great are the chances that the following situations will happen to you?

<table>
<thead>
<tr>
<th>Situation</th>
<th>Very Good</th>
<th>Some Chance</th>
<th>No Chance</th>
</tr>
</thead>
<tbody>
<tr>
<td>91. Graduate with honors</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>92. Miss more than one class a week</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>93. Develop a good relationship with at least one faculty member or an advisor</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>94. Earn at least a “B” average</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>95. Study with other students</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>96. Fail one or more courses</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>97. Find my courses boring</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>98. Receive emotional support from my family if I experience problems in college</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>99. Take more than 4 years to complete my bachelor’s degree at this university</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
100. Complete a bachelor's degree at this university

Very Good  Some Chance  No Chance

101. If needed, seek assistance for personal, career, or academic problems from the appropriate university office

102. Be placed on academic probation

103. Drop out of college temporarily

104. Drop out of college permanently

105. Transfer to another college at the end of my freshman year

106. Transfer to another college sometime in the near future

107. Return for the fall semester of my sophomore year

108. Be satisfied with this university

109. Have serious disagreements with my family regarding my personal, social, academic, or career decisions

Predictions About Your Involvement With This University

In this section we are interested in estimates about how involved you might be in various activities at this university in addition to your courses.

**During your freshman year, how often do you expect to:**

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>110. Use the library as a place to study and do research for your classes?</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>111. Talk with faculty informally outside of class?</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>112. Think about course material outside of class</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

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ans/or discuss it with other students?  

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

113. Participate in cultural events (art, music, theater) on campus?  

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

114. Use the University Center as a place to eat or socialize with friends?  

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

115. Use campus athletic facilities for individual or group recreational activities?  

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

116. Participate in campus clubs & organizations?  

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

117. Read articles or books or have conversations with others on campus that will help you to learn more about yourself?  

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

118. Make friends with students who are different from you (age, race culture, etc.)?  

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

119. Have serious discussions with students whose beliefs and opinions are different from yours?  

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

120. Use what you learn in classes in your outside life?  

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

121. Actively participate in your classes?  

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

122. How significant a part of your life do you expect your attendance at this university to be?  

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>This university will be the MAJOR FOCUS of my life while I am attending.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>This university will receive MORE ATTENTION than the other activities and responsibilities in my life (family, work, friends, etc.).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>This university will receive about the SAME AMOUNT OF ATTENTION as the other activities and responsibilities in my life (family, work, friends, etc.).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>This university will receive LESS ATTENTION than the other activities and responsibilities in my life (family, work, friends, etc.).</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How great are the chances the following situations will happen to you?
123. Work full-time while attending college  
124. Work part-time while attending college  
125. Attend college part-time for one or more semesters  
126. Do volunteer work  
127. Establish some close friendships with students I meet during my freshman year  
128. Join a fraternity or sorority  
129. Be elected an officer in an organization  
130. Participate in varsity sports  
131. Feel overwhelmed occasionally by all I have to do  
132. Find a job after college in my major field  
133. I would like to have my responses to the freshman survey released to my Academic Advisor so that I may compare my answers to those of other freshmen who are academically successful at this university.

**Making a College Choice**

In this section we would like you to reflect back on your decision to attend this university. Please chose the best response to each of the following questions.

134. When it came to choosing among all of the colleges TO WHICH YOU WERE ACCEPTED, what choice was this university?
   
   O First choice  
   O Second choice  
   O Third choice
135. What was your PRIMARY REASON for choosing this university? (Please choose only ONE reason).

- Campus appearance
- Career Advantage Program
- Cost
- Cultural diversity
- Just felt like a good fit
- Location near home
- Quality of academic programs
- Scholarship or financial aid package
- Size (number of students)

136. If this university was not originally your first choice, which ONE of the following colleges was?

- This college was my first choice
- College of William and Mary
- George Mason University
- Hampton University
- James Madison University
- Mary Washington College
- Norfolk State University
- University of Virginia
- Virginia Commonwealth University
- Virginia Tech
- Virginia Wesleyan College
- Another Virginia College
- An out of state college

When deciding which college to attend, what factors were most important to you?

137. Private
- Public
- Not important to me

138. In Virginia
- Out-of-State
- Not important to me

139. Small (less than 5,000 students)
O  Mid-size (5,000 to 15,000 students)
O  Large (more than 15,000 students)
O  Not important to me

140.  O  Rural (outside a city and/or in a small town)
      O  Urban (in or near a large city)
      O  Not important to me

141.  O  Near home (within 30 miles)
      O  Away from home (more than 30 miles)
      O  Not important to me

142.  O  Attractive campus
      O  Well maintained buildings
      O  Friendly atmosphere
      O  More than one of the above
      O  Not important to me

Thank you for your time and effort in completing the Freshman Survey

Good luck to you during your freshman year!
APPENDIX B

BIOGRAPHICAL QUESTIONNAIRE

Please answer the following items.

1. What are your current living arrangements for this semester?
   
   O I am living ON-CAMPUS in university housing.

   O I am either alone or with friends (NOT with relatives) LESS THAN 1 MILE FROM CAMPUS.

   O I am either alone or with friends (NOT with relatives) MORE THAN 1 MILE FROM CAMPUS.

   O I am living at HOME WITH MY PARENTS.

   O I am living at HOME WITH MY SPOUSE.

   O I am living WITH OTHER ADULT RELATIVES.

2. What is the size of your hometown?

   O Rural farm

   O Small town (10, 000 or fewer persons) MORE THAN 30 miles from a city of 100, 000 or more people.

   O Small town (10, 000 or fewer persons) LESS THAN 30 miles from a city of 100, 000 or more people.

   O Mid-sized city (10, 000 to 100, 000 persons)

   O Large city (100, 000 or more persons)

3. What is your current religious preference?

   O Baptist

   O Other Protestant (Congregational, Episcopal, Lutheran, Methodist, Presbyterian, Quaker, etc.)
O Jewish
O Roman Catholic
O Other religion
O None

4. What is your current marital status?
   O Single/never married
   O Married AND living with spouse
   O Separated, divorced, or widowed

5. Are you a parent?
   O No
   O Yes

Do you have any of the following disabilities? Please mark one response for each question.

6. Hearing impaired or deaf?  O  O
7. Speech  O  O
8. Orthopedic  O  O
9. Learning disability  O  O
10. Health-related  O  O
11. Partially-sighted or blind  O  O

12. How many hours do you plan to work during this semester while attending this university?
   O None
   O A few hours occasionally, but not on a regular basis.
O 10 or fewer hours per week
O 11 to 20 hours per week
O 21 to 30 hours per week
O More than 30 hours per week

Is anyone in your family, including you, active-duty military? Please mark one response for each question.

13. You No Yes Not Applicable
14. Father O O O
15. Mother O O O
16. Your spouse O O O

Please list those who lived with you this past year. Please mark one response for each question.

17. Father No Yes Not Applicable
18. Mother O O O
19. Brother(s) and/or sister(s) O O O
20. Your spouse O O O
21. Other adult relative(s) O O O
22. Other adults O O O
23. Your child(ren) O O O

24. Who was the Head(s) of Household in your house this past year? Please select only one response.

O You and your spouse
O Just you

O Just your spouse

O Parent (s), step-parent (s), other adult relatives (s), other adult (s)

25. What is the highest level of education achieved by your FATHER (or male adult who contributed the most to your support while you were growing up)? (If no male or father was present while you were growing up, please leave blank.)

O Less than 7 years of school

O Completed junior high school (through 9th grade)

O Some high school

O Postsecondary training other than college or community college

O Some college or community college

O Completed 2-year college degree

O Completed 4-year college degree

O Some graduate or professional school

O Completed a graduate or professional degree

26. What is the highest level of education achieved by your MOTHER (or male adult who contributed the most to your support while you were growing up)? (If no male or mother was present while you were growing up, please leave blank.)

O Less than 7 years of school

O Completed junior high school (through 9th grade)

O Some high school

O Postsecondary training other than college or community college

O Some college or community college

O Completed 2-year college degree
O Completed 4-year college degree
O Some graduate or professional school
O Completed a graduate or professional degree

27. IF YOU ARE MARRIED, what is the highest level of education achieved by your SPOUSE? (Please leave blank if you are not married.)

O Less than 7 years of school
O Completed junior high school (through 9th grade)
O Some high school
O Postsecondary training other than college or community college
O Some college or community college
O Completed 2-year college degree
O Completed 4-year college degree
O Some graduate or professional school
O Completed a graduate or professional degree

28. What is the highest level of education YOU have achieved?

O Less than 7 years of school
O Completed junior high school (through 9th grade)
O Some high school
O Postsecondary training other than college or community college
O Some college or community college
O Completed 2-year college degree
O Completed 4-year college degree
O Some graduate or professional school

O Completed a graduate or professional degree

29. To the best of your knowledge, are you the first one in your family to attend college? (Do not include brothers and sisters.)

O Yes

O No

30. What is the best estimate of the combined total income of the adult or adults with whom you lived during the past year for the most recent tax year?

O Less than $10,000

O $10,000 to $14,999

O $15,000 to $19,999

O $20,000 to $29,999

O $30,000 to $39,000

O $40,000 to $49,999

O $50,000 to $99,999

O Greater than $100,000

31. Which category best describes your FATHER’S occupation (or male adult who contributed the most to your support while you were growing up)? (If no father or male adult was present while you were growing up, please leave blank.)

O High level executive (president or vice-president), major professional (e.g., physician, lawyer, college professor), large business owner, or military commissioned officer (Major or above)

O Business manager (department manager or director), other professional (e.g., accountant, teacher, nurse, engineer), medium business owner, or military commissioned officer (Lieutenants and Captains)

O Administrative personnel (staff), semi-professional (e.g., programmer,
photographer, reporter), small business owner, skilled office worker, or military staff non-commissioned officer

O Skilled manual employee (e.g., carpenter, electrician, farmer, police officer) or military non-commissioned officer

O Clerical, sales worker, or technician (e.g., jeweler, computer operator, inspector)

O Machine operator, semi-skilled employee (e.g., truck driver, longshoreman), maintenance or service worker (e.g., janitor, waiter/waitress, mail carrier), or enlisted military

O Homemaker

O Retired or disabled

32. Which category best describes your MOTHER’S occupation (or female adult who contributed the most to your support while you were growing up)? (If no mother or female adult was present while you were growing up, please leave blank.)

O High level executive (president or vice-president), major professional (e.g., physician, lawyer, college professor), large business owner, or military commissioned officer (Major or above)

O Business manager (department manager or director), other professional (e.g., accountant, teacher, nurse, engineer), medium business owner, or military commissioned officer (Lieutenants and Captains)

O Administrative personnel (staff), semi-professional (e.g., programmer, photographer, reporter), small business owner, skilled office worker, or military staff non-commissioned officer

O Skilled manual employee (e.g., carpenter, electrician, farmer, police officer) or military non-commissioned officer

O Clerical, sales worker, or technician (e.g., jeweler, computer operator, inspector)

O Machine operator, semi-skilled employee (e.g., truck driver, longshoreman), maintenance or service worker (e.g., janitor, waiter/waitress, mail carrier), or enlisted military
33. IF YOU ARE MARRIED and your spouse was employed this past year, which category best describes YOUR SPOUSE’S occupation? Please select ONE category. (Please leave blank if you are not married.)

- Homemaker
- Retired or disabled

- High level executive (president or vice-president), major professional (e.g., physician, lawyer, college professor), large business owner, or military commissioned officer (Major or above)

- Business manager (department manager or director), other professional (e.g., accountant, teacher, nurse, engineer), medium business owner, or military commissioned officer (Lieutenants and Captains)

- Administrative personnel (staff), semi-professional (e.g., programmer, photographer, reporter), small business owner, skilled office worker, or military staff non-commissioned officer

- Skilled manual employee (e.g., carpenter, electrician, farmer, police officer) or military non-commissioned officer

- Clerical, sales worker, or technician (e.g., jeweler, computer operator, inspector)

- Machine operator, semi-skilled employee (e.g., truck driver, longshoreman), maintenance or service worker (e.g., janitor, waiter/waitress, mail carrier), or enlisted military

- Homemaker
- Retired or disabled

34. IF YOU WERE EMPLOYED 30 or more hours per week this past year, which category best describes your occupation? Please select ONE category. (Please leave blank if you were not employed 30 or more hours per week this past year.)

- High level executive (president or vice-president), major professional (e.g., physician, lawyer, college professor), large business owner, or military commissioned officer (Major or above)

- Business manager (department manager or director), other professional (e.g.,
accountant, teacher, nurse, engineer), medium business owner, or military commissioned officer (Lieutenants and Captains)

O Administrative personnel (staff), semi-professional (e.g., programmer, photographer, reporter), small business owner, skilled office worker, or military staff non-commissioned officer

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O Clerical, sales worker, or technician (e.g., jeweler, computer operator, inspector)

O Machine operator, semi-skilled employee (e.g., truck driver, longshoreman), maintenance or service worker (e.g., janitor, waiter/waitress, mail carrier), or enlisted military

O Homemaker

O Retired or disabled
APPENDIX C

HUMAN SUBJECTS REVIEW COMMITTEE APPROVAL

From: “David Swain” <dswain@odu.edu>
To: Ira39@juno.com
Date: Fri. 3 Mar 2000 14:26:25
Subject: proposal review

Dear Ira Falls,

The Darden College of Education Human Subjects Review Committee met on 3 March 2000 to review your proposal, COE #03-00-3, “The effects of academic self-concept and achievement expectancies on the academic success and persistence rate of African-American freshmen students.” The committee found that your project is EXEMPT. This means that you may proceed with your research.

Sincerely,
David Swain
committee chair

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Training Program
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