Holy or unholy matrimony: does participation in a pre-college program influence the retention rate of African American males in college

James DJ Baker III
Louisiana State University and Agricultural and Mechanical College, djbaker7@gmail.com

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HOLY OR UNHOLY MATRIMONY: DOES PARTICIPATION IN A PRE-COLLEGE PROGRAM INFLUENCE THE RETENTION RATE OF AFRICAN AMERICAN MALES IN COLLEGE?

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College
In Partial Fulfillment of the Requirements for the degree Doctor of Philosophy in
The Department of Educational Theory, Policy and Practice

by
James D. Baker III
B.B.A., Fort Valley State University, 2004
M.B.A., Delaware State University, 2006
May, 2012
DEDICATION

I would be doing a disservice to myself, others and the values that have been instilled in me for the past three decades if I did not dedicate this dissertation in the most appropriate manner. First and foremost, I would like to honor the Holy Trinity—The Father, The Son and The Holy Ghost. Without your sacrifice and daily presence in my life, I would not be the Man of Faith I am today. Thus, I would like to dedicate this dissertation firstly to you.

Ms. Maeola Williams is a grandmother, a mother, a father, a leader, a Faithful servant, a true example of the walking in love and so much more. Words cannot express how grateful I am to have you as not only my “G-Ma,” but my best friend and confidant too. What it took for you to rear your own children, seven grandchildren, numerous great-grands and so many others, only GOD and you know. But today, on behalf of each of them and every single person you have blessed with your love and kindness, I celebrate your labor of love by dedicating this dissertation, my time, my life, my love and all my future work to the legacy you have established on this earth. I am who I am because of you and I would not trade you for anything in this world. My heart, my mind and my soul thanks you now and forever more.

Lastly, I would like to dedicate this dissertation to every hood, block, borough and Church, local and abroad. The hood bred me, the block raised me, the borough taught me and the Church has kept me when I could not keep myself. I owe you so much and I thank you for helping to create the distinguished gentleman that is present today. I will pay it forward and may my light shine bright enough to help others find their way out of darkness.
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ABSTRACT

Fifty percent of all students who enroll in college depart before earning their degree; this proportion is even higher among minorities during the first year of college (Tinto, 2006). Minorities have typically had fewer opportunities to gain a college education. Once enrolled in college, minorities have generally found it more difficult to succeed academically and graduate (Strayhorn, 2011). There is one group among the collective of minorities that are even further behind the rest, and that is African American males. African American males are one of the most underrepresented populations of students on college campuses around the nation (Feagin, Vera, & Imani, 1996). Relatively few Black men enroll in four-year colleges and universities (Cuyject, 2006); in fact, of the approximate 15 million undergraduate students in the United States, less than 5% are Black men (National Center for Education Statistics, 2009).

In response to the trends and challenges faced by Black men, the federal government, as well as higher education institutions, have invested considerable resources in the development and implementation of programs and services that are designed to provide the necessary academic and social support researchers have found to be integral to the success of students in college (Astin, 1993; Swail, Redd & Perna, 2003 and Tinto, 1993). One of the federal government’s responses to this issue is the development of numerous pre-college programs. The aim of this study was to determine whether pre-college programs (i.e., Upward Bound, Talent Search & G.E.A.R. UP) are effective in realizing their goals for African American men, particularly as it relates to their college retention rates.

Using the National Center for Education Statistics’ Education Longitudinal Study of 2002 (ELS:2002) guided by Tinto’s Student Attrition model, the researcher sought to determine: To what extent does participating in a pre-college program influence the first-year retention rates
of African American males in college, controlling for differences in, background traits, academic preparedness and parental level of education?

The findings from this study suggest that out of three federally funded pre-college programs Upward Bound, Talent Search and G.E.A.R. UP, only the Talent Search program has any impact on the retention rate of African American males in college.
CHAPTER ONE
INTRODUCTION AND PURPOSE

Background and Context

Fifty percent of all students who enroll in college depart before earning their degree; this proportion is even higher among minorities during the first year of college (Tinto, 2006). Minorities typically have fewer opportunities to gain a college education. Once enrolled in college, these so-called minorities generally find it more difficult to succeed academically and graduate (Strayhorn, 2011). There is one group among the collective of minorities that is even further behind the rest, and that is African American males.

In 1980, there were 143,000 African American men in prison and 463,700 enrolled in college. By the year 2000, the figures relating to African American men in college versus those in prison had drastically changed. Seven hundred and ninety-one thousand six hundred African American men were in prison and 603,032 were in college. Over the span of two decades, the population of African American men in prison more than tripled while the number of African American men in college elevated slightly. By the end of 2002, 10.4% of the entire African American male population in the United States, aged 25-29, was incarcerated. More African American men were incarcerated that year than was the case for any other male population. Respectively, 2.4% and 1.2% of the Hispanic and White male populations in that same age group were in prison or jail (U.S. Office of Justice Programs, 2003). The number of African American men in jail over the past couple of years has remained almost static. Of the entire prison population in the years 2008-2010, 785,536, 767,434 and 748,725, African American males represented 39.2%, 39.2% and 37.8%. These numbers are indeed troubling considering the fact
that African American males only represent 6% of the entire United States population (U.S. Office of Justice Programs, 2010).

Presently, African American males are one of the most underrepresented populations on U.S. college campuses (Kim, 2011). Relatively few African American men enroll in college (Cuyjet, 2006); in fact, of the approximately 19,103,000 students enrolled in degree-granting institutions in the United States, less than 5% are African American men (U.S. Department of Education, 2010a). Of the 16,376,000 undergraduates who entered college in 2008, African American men represented less than 11% (National Center for Education Statistics, 2009). In contrast, Black females represent well over 65% of all Blacks attending degree-granting institutions (Cuyjet, 2006). Of those African American men who enroll, only 30% actually earn their degree within six years. African American females outnumber African American males on almost every public university campus and are more than twice as likely to graduate (Kim, 2011). Today, Black men represent the same proportion of all students enrolled in college as they did in 1976 (Strayhorn, 2011). Enrollment and persistence of African American men in college is clearly problematic.

The decision to attend college is very difficult, complex and is subject to multiple influences that are constantly changing for all students. Whether or not to attend college may be based on numerous factors: the type of career the student is interested in, the socio-economic status of the student’s parents, the neighborhood they grew up in, sports aspirations, etc. (Bers & Galowich, 2003). After sorting through all those factors and making the decision to go college, students still have another major life decision waiting: which college to attend. Choosing which college to attend can range from easy, very difficult to extremely stressful. With so many options
like Ivy League, Private, Public, Technical, Community, Majority, and Historically Black or Latino institutions, college choice is influenced by an array of factors.

The literature on college choice in the United States and abroad indicates that students from particular academic, socio-economic or ethnic communities go about the process of choosing which school to attend in different ways (Freeman, 1999; Hearn, 1991; Hurtado, Inkelas, Briggs & Rhee, 1997; Perna, 2000). Some factors that affect college choice are physical, social, emotion and others are spiritual (Cabrera & La Nasa, 2000). Friends, school counselors, teachers, coaches, significant others and parents all play an influential part in the college choice decision a student ultimately makes (Paulsen & St. John, 2002).

College choice studies seek to understand the external variables that influence students' decisions, as well as the individual student characteristics, which may affect their choices. It is known, not unlike all other types of students, African American men go through a similar decision making process when choosing which institution, if any, they will attend (Freeman, 1997). However, the decision where to attend college for African American males is heavily influenced by more social than academic factors (Harper & Harris, 2010).

One of the most intriguing parts of the Black male experience during college is that many also face additional challenges, such as transitioning to the campus environment and developing a sense of belonging on campus (Bailey & Moore, 2004). Researchers, such as Astin (1992), Fleming (1981 & 1984) and Parker and Scott (1985), note that if Black men perceive the campus climate at Predominantly White Institutions (PWIs) to be racist and hostile, they are more likely to be alienated from the collective. Literature suggests that Black men seek active out of class learning experiences (e.g., multicultural organizations, intramural sports and volunteer groups) to help with their adjustment to college, and may suffer developmentally, if these opportunities are
not readily available (Sutton & Kimbrough, 2001). Black males especially have a difficult time transitioning into environments where they encounter racial micro-aggressions, or unconscious and subtle forms of racism that promote white superiority and black inferiority (e.g., put downs or negative stereotypes about black people) (Solorzano, Ceja, & Yosso, 2000; Steele & Aronson, 1995). The challenge of not being able to positively transition into a campus climate at college ultimately affects the retention of African American males (Feagin, Vera, & Imani, 1996). Therefore, not addressing these challenges can undermine efforts to increase student retention and degree attainment rates for African American males (Strayhorn, 2008).

In response to the trends and challenges faced by African American males, the federal government and higher education institutions have invested a considerable amount of resources in the development and implementation of programs and services designed to provide the necessary academic and social support. Several leading researchers, Astin (1993), Swail, Redd and Perna (2003) and Tinto (1993), have all found these types of programs are integral to the success of college students. One of the federal government’s responses to the issues faced by so-called minorities like African American males is pre-college programs.

The United States government has remained committed to supporting policies and programs geared toward increasing access and retention in higher education for low-income and minority students since the passage of the Economic Opportunity legislation by President Lyndon B. Johnson in 1964 (Jager-Hyman, 2004). With the passing of Title V of the Higher Education Act of 1965 came the establishment of the Special Programs for Students from Disadvantaged Backgrounds Department, known today as the nation’s TRIO Programs (U.S. Department of Education, 2010c). These federally funded programs are designed for outreach and student services. The three original TRIO programs were Upward Bound, Talent Search and
Student Support Services. Today, TRIO consists of eight programs. The five additional programs are Educational Opportunity Centers, Ronald E. McNair Postbaccalaureate Achievement, Training for Federal TRIO Programs Staff, Upward Bound Math-Science and Veterans Upward Bound. All eight TRIO programs have one unified mission: To increase access to college and graduation rates for racial/ethnic minorities and disadvantaged students by providing a range of services including information about financial aid, opportunities for college visits and academic services to students already enrolled in college (U.S. Department of Education, 2010c). These programs were designed in response to the considerable challenges faced by low income and racial/ethnic minority students, such as African American males. The focus of these eight TRIO programs is to serve and assist low-income individuals, first-generation college students and individuals with disabilities in progressing through the academic pipeline from middle school to post baccalaureate (Department of Education, 2010b). However, research shows that with the existence of programs similar to TRIO, some of these challenges are still experienced by all minority college students, especially African American males (Ceja & Yosso, 2000).

Recent headlines in the Chronicle of Higher Education suggest that the federal government and higher education professionals are at odds about the effectiveness of federal pre-college programs, such as TRIO and G.E.A.R. UP. On one hand, directors of programs (e.g., Upward Bound, Talent Search and G.E.A.R. UP) maintain a passionate belief that “TRIO Programs a Help to Students.” Michael Dennehy (2006), Director of the Upward Bound program at Boston University, said that for over 40 years TRIO and other pre-college programs have consistently helped millions of low-income and first-generation college students leap across the existing chasm (p. B 22). In contrast, the Department of Education and other federal agencies question the impact that TRIO programs have had on removing “Obstacles on the Route from
High School to College” (Finn, 2006). Despite this war of opinions, the federal government has invested enormous amounts of money in establishing and maintaining pre-college programs. According to data provided by the Department of Education (2009), more than $800 million is spent each year on the TRIO pre-college programs alone and an additional $300 million plus is spent on individual pre-college programs like G.E.A.R. UP.

According to the Council for Opportunity in Education (2009), pre-college programs, like TRIO and G.E.A.R. UP, unlike financial aid programs that help students overcome financial barriers to higher education, help students overcome class, social and cultural barriers. More specifically, these programs were established or designed to reach out to racial/ethnic minority and low-income high school students (U.S. Department of Education, 2010c), in order to ease the transition to college (Mahar, 2005), and increase participation in graduate programs (U.S. Department of Education, 2005b). For instance, Upward Bound, the predecessor to all TRIO programs, began as a pilot program in 1965. Its original mission, as it still remains today, is to foster the skills and motivation necessary for enrollment and success in education beyond high school among low-income youth and potential first-generation college students, such as African American males, enrolled in high school (U.S. Department of Education, 2010c).

Student Support Services (SSS), authorized in 1968, focuses specifically on increasing the postsecondary persistence and graduation rates of low-income, first-generation college students with disabilities and seeks to facilitate these students’ transition from one level of higher education to the next (U.S. Department of Education, 2005a). In 2002, African Americans made up 29% of the first-generation college students who participated in the Student Support Services program (U.S. Department of Education, 2007). With the ratio of African American females to
males entering college being 2:1 (Cuyjet, 2006), it is estimated that African American males made up around 10% of these first-generation college students.

Despite the sizeable investment in federal pre-college programs like TRIO and G.E.A.R. UP, little is known in terms of research about the effectiveness of these programs. More specifically, the effectiveness of these programs in alleviating the challenges and crises faced by African American male college students has yet to be fully determined. The extant literature on pre-college programs is largely anecdotal and outlines arguments for and against the continuation of pre-college programs (Perna, 2002). Commentary by Fenske, Geranios, Keller and Moore (1997) and Swail and Roth (2000) has suggested that these programs are very successful early intervention programs that increase access to higher education for minority and low-income students. Further commentary on pre-college programs focuses on the nature and purpose of the programs (Balz & Esten, 1998). According to Leonard (2001), “although a number of programs exist, it is surprising how little empirical data exists about the program effectiveness in terms of college participation rates or strategies that make the most difference” (p. 5).

Very few researchers have sought to evaluate these programs holistically. In Edmonds’ (2003) study, “Upward Bound as Model to Deter Attrition,” he examined students who graduated from an Upward Bound program at one institution in the south, North Carolina State University. His qualitative study focused on 18 African American students who previously participated in an Upward Bound program and were currently attending North Carolina State. In his own recommendations, Edmonds noted that additional studies on the experiences of these program participants needs to be conducted and well documented to determine if participation in these programs affects the retention rates of these students (Edmonds, 2003).
In Knowles’ (2009) analysis, “The Federal Presence In Education,” she evaluated the G.E.A.R. UP program in the Marietta City School District. Her quantitative examination sought to determine if G.E.A.R. UP participants in that school district chose to pursue postsecondary education. Knowles’ findings, consistent with her hypothesis, suggested that students who participated in the G.E.A.R. UP program were significantly more likely to report that they plan to pursue postsecondary education. However, this study only examined whether students planned to attend college, not whether they actually enrolled, were retained and ultimately graduated.

Currently, additional studies that thoroughly evaluate these programs are still lacking. Furthermore, no studies were uncovered that test the effectiveness of these programs in achieving certain outcomes specifically for African American males.

**Statement of Problem**

Federal pre-college programs were designed to increase enrollment, ease transition and raise the retention rates of minority students (Dennehy, 2006). Some researchers, including Balz and Esten (1998); Perna (1998); Swail, Redd and Perna (2000) and Young and Exum (1982) have suggested that these programs are effective. For instance, according to Swail and Roth, “pre-college programs are, for a lack of a better term, the “finger in the dike” of the U.S. education system; they plug up the holes where students flow out of the system” (2000, p. 14). However, there is a lack of empirical research to support these claims on the effectiveness of these programs. Still today, there remains a dearth of African American males enrolling in and persisting in college despite one of the aims of the pre-college program: to increase the enrollment and persistence of minority students. The aim of this study was to determine whether pre-college programs, such as Upward Bound, Talent Search and G.E.A.R. UP are effective in
realizing their goals for African American male college students, particularly as it relates to their retention.

**Purpose of Study**

The purpose of this study is to assess the effect of participation in a federally funded Upward Bound, Talent Search or G.E.A.R. UP program on retaining first-year African American male college students.

**Research Questions**

The specific research question addressed by this study is:

1) To what extent does participating in a federally funded Upward Bound, Talent Search or G.E.A.R. UP program influence the first-year retention rates of African American males in college, controlling for differences in, background traits, academic preparedness and parental level of education?

**Significance of Study**

Given that little is known about the effectiveness of federally funded pre-college programs in enhancing the retention of African American males in college, in this study the researcher attempted to provide empirical data about that aspect, something that is currently missing. The day of reckoning for federally funded pre-college programs has come and the highest levels of government urgently request information on their effectiveness. Today, more than ever before, federally funded pre-college programs should be working to assess their effectiveness and measurable outcomes in an effort to demonstrate to the federal government that the mission of these programs is being fulfilled. In addition, in this study, the researcher sought to add to the base of empirical knowledge about pre-college programs that is needed, but currently nonexistent or limited.
The information derived from this study may hold promise for increasing the enrollment and retention rates of African American males in college. Also, this study may help to provide substantiated evidence for the federal government, researchers, educators, program administrators and participants as to the measurable outcomes of these programs and the effects they may or may not have on the lives of its participants. Further, the findings may help to inform policymakers regarding these programs.

**Theoretical Framework**

Vincent Tinto's Student Attrition/Retention model guides this study. This model is frequently used in the study of college student retention because Tinto’s model is one of the only models that has undergone and survived countless tests for adaptability, reliability and validity over the past two decades (Swail, 2004a). The predictive validity of the Tinto model has been tested in various institutional settings (Levin & Clowes, 1982). Based on their studies in single institutions, Pascarella and Terenzini (1978, 1980) showed that the model appeared to be appropriate for exploring the complex interactions of factors that are affecting student retention or attrition and also for predicting those students who are at risk.

Research studies by Kohen, Nestel and Karmas (1978); Levin and Clowes (1982) and Pascarella and Chapman (1983) have utilized Tinto's model to examine the effect of variables derived from the model on retention. In this study, the researcher explored the possible effect that participation in a pre-college program has on the retention of African American males in college, controlling for differences in, background characteristics, academic preparedness, and parental level of education. Researchers such as Attinasi (1989, 1994), Kraemer (1997) and Tierney (1992, 1999) argue against using Tinto’s model because they suggest it does not appropriately capture the experiences of minority students. However, Tinto's model is the only
model that can be adapted to examine the particular sociological variables for this study. Consequently, Tinto’s model on Student Attrition/Retention seemed most appropriate for this study. The research question posed and the lens for analyzing data (Mertz & Anfara, 2007) will be influenced by Tinto’s framework.

**Limitations**

Only certain pre-college programs for the disadvantaged (Upward Bound, Talent Search & G.E.A.R. UP) were examined in this study. Investigation into the effectiveness of other pre-college programs (i.e., Knowledge Is Power & I Have A Dream) could render different results. Also, only African American males in their first year of college were examined in this study. Examining a different population of students (e.g., Latinos or Asians) in their first year of college may provide alternate data in relation to the effectiveness of pre-college programs and how they affect the retention of these students. While findings may be useful, they may not necessarily relate to other pre-college programs such as the Child Care Access Means Parents in School that focuses on issues not related to retention or transition faced by racial/ethnic minority students.

A secondary national data set, the Education Longitudinal Study of 2002 (ELS:2002) was used in this study. The current study was limited to only those African American males who participated in the Education Longitudinal Study of 2002 and responded to the follow-up year surveys. The findings may not reflect the experiences of all African American males in college. However, the findings may be generalizable considering over 750 colleges and universities and 15,400 students participated in this study. Finally, this study was limited because it was conducted on a national data set that only allowed selection of certain variables. As a result, all variables may not have been considered.
Definitions

1. **African American/Black**: These terms will be used interchangeably throughout this dissertation to refer to males of African ancestry who were born in the United States or any of its territories.

2. **Attrition**: This term will be used throughout this dissertation to refer to a reduction or decrease in enrollment from Fall semester to Spring semester.

3. **Early Intervention/Pre-College Programs**: These terms will be used interchangeably throughout this dissertation to refer to programs designed to increase college enrollment and retention rates of historically underrepresented groups of students (e.g., low income, disadvantaged and other racial/ethnic minorities).

4. **G.E.A.R. UP**: The term G.E.A.R. UP is an acronym that will be used for the Gaining Early Awareness and Readiness for Undergraduate Programs. This term will be used to describe the federally funded program that provides discretionary grants to increase the number of low-income students who are prepared to enter and succeed in postsecondary education institutions of their choice.

5. **Retention**: This term will be used throughout this dissertation to refer to continuous enrollment from Fall semester to Spring semester.

6. **So-Called Minorities**: This term will be used throughout this dissertation to refer to a population of individuals who are members of a racial/ethnic group that is not a part of the majority population in a specific location/environment.

7. **Student Departure**: This term will be used throughout this dissertation to refer to students who abandon their educational pursuits at a specific institution to attend another institution or to explore other options, beyond college.
8. **Transition/Adjusting:** These terms will be used interchangeably throughout this dissertation to refer to a student’s passage from one state, place, stage or subject to another.

9. **TRIO Programs:** The term TRIO describes the three original federal programs (Upward Bound, Talent Search and Student Support Services) and the five additional federally funded programs developed to help disadvantaged students progress through the academic pipeline from middle school to graduate school and beyond.
CHAPTER TWO
A REVIEW OF LITERATURE

Introduction

One approach to investigating and assessing the effect of participation in a pre-college program on retaining first-year African American male college students is to explore extant literature. This chapter consists of a five part examination: 1) African American Males in College, 2) The Birth of Pre-college Programs, 3) Pre-college Programs Explored, 4) Student Departure and 5) Summary.

African American Males in College

Of all young Black males in K-12 today, only 50% of them will graduate from high school (U.S. Department of Education, 2010a). One of the most actively discussed and sometimes vigorously debated issues since the late 1980’s has been the declining social, economic and educational status of young African American males in society (Davis, 2003). The issues related to the condition of African American men in U.S. society are far-reaching and complex (Cuyjet, 2006). Given the social and economic challenges faced by African American males in the United States, their experiences in college have become major sources of concern and a challenge for many institutions of higher education (Roach, 2001).

African American males are one of the most underrepresented populations on U.S. college campuses (Kim, 2011). The disproportionate numbers of Black men earning a degree from college has significant implications for society and families in general terms of future employment prospects (Black & Sufi, 2002). Even if one doubts that a “crisis” truly exists or questions whether African American males may one day become an “endangered species,” few systematic solutions have been offered to realistically address the challenges at least one-third of
young Black men experience (Garibaldi, 1992, p.4). While most so-called minority subgroups have seen significant progress in their postsecondary enrollment, there has been little to no progress in increasing college participation rates among Black men over the last quarter century (Strayhorn, 2008). African-American males are still one of the most underrepresented populations of students at Predominantly White Institutions in the nation (Kim, 2011).

African American males face a number of difficult and, arguably, unique challenges (e.g., transitions issues from high school to college, under-preparedness in the K-12 system and adjustment to new environments where they are the minority population) that may inhibit their success in college (Bailey & Moore, 2004). Fleming (1984) posited that African American students often experience a number of challenges with finances, support services, faculty and staff, other students and the rigorous curriculum at predominantly nonminority campuses. Although researchers offer a number of reasons for this fact, most research suggests that African-American male students have a more difficult time adjusting to campus life at Predominately White Institutions both academically and socially (Sutton & Terrell, 1997). For example, while some African Americans males continue to enroll in college, they complete their degrees at a far lesser rate than their White male counterparts (Gasman & Palmer, 2008).

Literature on African American students in college is emerging. Researchers such as, DeSousa and King (1992); DeSousa and Kuh (1996); Eimers and Pike (1985) and Fleming (1984) have all explored African American student retention, but not solely for African American males. Fleming, a pioneer researcher in the field, conducted a study that examined the effects of Historically Black and Traditionally White institutions and the students who attend them. By sampling 3000 freshman and senior students in 15 colleges (eight Traditionally White and seven Historically Black) in four different states, Fleming was able to ascertain, using a
comparative approach that minority students develop differently depending on the institution they attend which affects their involvement and retention (Fleming, 1984).

There are numerous reasons researchers feel that African American students are not retained. Harper and Harris (2011) note that the feeling of social and cultural isolation, as it relates to leadership and campus climate, contributes to diminishing leadership opportunities among African American students; therefore, they do not feel a part of the campus community. Researchers, such as Astin (1992); Fleming (1981, 1984); Loo and Rolison (1986) and Parker and Scott (1985) contend that many minority students perceive the climate at Predominantly White campuses to be hostile. Given the potential impact school experiences have on social and economic consequences throughout the life course, how African American males cope with the stressors within these environments merits important consideration (Davis, 1994). These negative challenges faced by Black men may influence many things (e.g., persistence, involvement and retention) (Gasman & Palmer, 2008).

The work of Astin (1993); Kuh (1993); Pace (1984); Sutton and Kimbrough (2001) and Tinto (1987) suggests that there is a correlation between student satisfaction and involvement in college. Understanding how African American males feel about the campus climate is important because it may speak to why, despite the increasing number of African American males who begin college, fewer of them obtain degrees than White students. In fact, compared to White students, African Americans are 20% less likely to complete college within a six-year period (Strayhorn, 2008). For every two White students who drop out in that time frame, three African Americans have departed from a postsecondary institution (Kim, 2011). Exposure to a climate of prejudice and discrimination in the classroom on campus has gained attention as the main factors
accounting for differences in withdrawal behavior between minorities and non-minorities in college (D’Augelli & Hershberger, 1993).

Vincent Tinto has been studying why students depart from college for decades. In his book, *Leaving College*, Tinto used quantitative case studies and numerous models to reveal why students leave college (1993). Tinto’s findings from the narrative suggest that all students, African American males included, face a number of external factors (e.g., pre-college experiences and institutional experiences) that effect whether or not they are retained. When applying his study to minority students in general, he found that these students have a need to be included in the educational system and campus community to be retained (Tinto, 1993).

Numerous researchers have provided anecdotal and empirical evidence of the precarious predicament of Black men throughout the educational pipeline (Strayhorn, McCall & Jennings, 2006). The low number of African American males in college is very problematic. According to Cuyjet, the relative absence of African American men on college campuses lessens the opportunities for non-African Americans to engage in face-to-face interactions that provide experimental learning about the true nature of other people (2006, p. 11). Dr. Jewelle Gibbs noted in her manuscript, *Young, black, and male in America: An endangered species*, that the problems faced by Black males in society and college must be examined, and how these may be challenging, complex and chronic, confounding scores of educators, researchers and policymakers (1988, p. 31). Black men from their adolescent phase are a population at risk (Cuyjet, 1997). While other racial/ethnic minority groups, including women and recent immigrants have made social and educational gains over the last two decades, Black men are now more likely than they were in 1960 to be unemployed, involved in the criminal justice
system, unwed fathers and suicidal (Eckhom, 2006). The crises faced by African American men in college must be addressed.

There is one interesting phenomenon as it relates to African American men in college. On some campuses at which there are small but stable numbers of African American men, a number of these individuals are intercollegiate athletes (Cuyjet, 1997). One out of every nine African American men at Predominately White four-year institutions is an athlete (LeNoir, 1997). Athletics does bring some African American men to college, but often these men have to debunk stereotypes that they are just dumb jocks (Steele & Aronson, 1995). Conversely, African American males who are not student athletes have to debunk stereotypes that since they are in college, they must be an athlete (Hall, 2001). This makes it extremely difficult to promote the perception that some African American men are scholars, intellectuals, campus leaders and not associated with any sports related activities (Cuyjet, 2006). In order to properly address the challenges faced by the African American men who make up a small percentage of the college and university population, there must be an attempt to learn about the socio-cultural characteristics of these students (Cuyjet, 1997).

Research on African American males in U.S. higher education is generally relegated to explorations of the quantitative indicators of enrollment and attrition. Correspondingly, little is known about the qualitative experience of these men on the nation's college campuses (Davis, 2003). Few researchers have examined the role that academic and non-academic factors play in facilitating the success of Black men in college (Strayhorn, 2008). Hamilton (2005) studied the achievement experiences of 12 African American males at several schools in Southern California. His findings suggest that several nonacademic or noncognitive variables were perceived to be instrumental to the success of these African American men, including attachment
to college, personal/emotional adjustment, social adjustment and the presence of a strong support system or person (Sedlacek, 2004). Fries-Britt (1997); Harper (2003, 2005) and Majors and Billson (1992) suggest that participation in intervention programs may help address the issues faced by African American males in college, one of which is pre-college programs. Participation in pre-college programs may help African American males deal with numerous challenges and transition issues (Edmonds, 2003).

**The Birth of Pre-College Programs**

Since the founding of the first higher education institution, gaining access has been very difficult. Perhaps it was necessary in the beginning for the nation’s priests to be exclusively educated and extend what they obtained in college to their parishioners. However, even then, as it remains today, the opportunity to learn was not afforded to all individuals. People of color, commoners and women were the last groups to gain entry into the realm of higher education, thanks to many hard fought battles, marches and driven individuals who worked diligently to pry open the imaginary doors that had been sealed shut by racism, Jim Crow laws and segregation. These people deserved an opportunity to gain an education and the religious entities and private foundations sought to give them a chance to do just that, become educated.

Beginning around the 1950s and 1960s religious entities and private foundations began to provide a range of services to underserved students including but not limited to, academic support, mentoring, college planning, financial aid information and opportunities for parental involvement (Jager-Hyman, 2004). These services soon became what are known today as the precursor to all pre-college programs. Pre-college programs or early intervention programs soon gained funding from the federal government and state governments. Subsequently, a number of nonprofit organizations and individual donors began to finance programs. Today, pre-college
programs vary throughout the country. Most programs commonly target racial/ethnic minority students, such as African American males, from low-income backgrounds in middle and/or high school (Cunningham, Redmond & Merisotis, 2003).

According to Gullatt and Jan (2003), these early intervention programs feature several common themes:

High standards for the program’s students and staff; personalized attention for the students, adult role models, peer support, K-12 program integration and strategically timed interventions; long term investment in students; a school/society bridge for students; scholarship assistance and evaluation designs that contribute results to interventions (p. 11).

Counseling and academic enrichment are the most common services provided by these types of outreach programs, followed by parental involvement activities, mentoring and personal/social integration activities (Cunningham, Redmond & Merisotis, 2003).

However, as the years have passed, pre-college programs have fallen under greater and greater scrutiny. The incredible diversity of these programs has made learning about them challenging. College and university administrators are wondering if they should invest their outreach money into these early intervention programs and more importantly, do they work (Kezar, 2000)? Numerous researchers, educators, program administrators and participants continue to advocate for the continuation of these programs. Perna, Fenske and Swail, leading researchers on pre-college programs note, pre-college programs provide the necessary support, tools and services to those students who may not otherwise have an opportunity to enter or graduate from college in the current U.S. educational system (2002, p. 5).
Pre-College Programs Explored

Many studies show that one of the most significant barriers to the pursuit of postsecondary education is the inability of students to imagine themselves in college (Coles, 1998). According to Kezar (2000), early intervention programs excel at removing this barrier. The most commonly stated goal of these early intervention programs is to increase college enrollment and student attrition rates (Perna, 2000). Much of the research on pre-college programs is anecdotal. Although, early intervention programs produce some data regarding the impact of its participants, very few of these programs have undergone rigorous evaluations that are statistically sound (Jager-Hyman, 2004). Gullatt and Jan (2003) conducted a thorough review of pre-college literature. They found that there were only six reports that surveyed the field of programs and even attempted a holistic evaluation of them.

Perna (2002) notes, early intervention programs can: (1) target students from low-come families; (2) help students see that college is a realistic option by providing mentors, encouraging campus visits and offering support for college-related activities; (3) provide academic enrichment, remediation, tutoring and/or study skills coursework; (4) provide academic and career counseling and access to peers with similar goals; (5) involve parents in program activities to increase their level of knowledge about college and their ability to be supportive to their children and (6) provide families with facts about applying to college, attending college and paying for college (p. 72).

For over four decades, the federal government has been a major sponsor of early intervention programs aimed at increasing college access for traditionally underrepresented groups, such as African American males, since the Johnson Administration’s establishment of Title V of the Higher Education Act of 1965 (Perna, 2002). Of all the pre-college programs that
provide early intervention services to thousands of students across the country, this study focused on the federally funded Upward Bound, Talent Search and G.E.A.R. UP programs. These programs were established to help low income, first-generation and racial/ethnic minority students’ transition into college and persist (U.S. Department of Education, 2010b).

TRIO programs were the first national college access and retention programs to address the serious social and cultural barriers to education in America (Council for Opportunity in Education, 2010). The term TRIO describes the three original federal programs (i.e., Upward Bound, Talent Search and Student Support Services) developed to help disadvantaged and other so-called minority students progress through the academic pipeline from middle school to graduate school. The history of TRIO programs spans three decades. The first decade, the nineteen sixties, saw the creation of the first TRIO program, Upward Bound. In the 1960s, during the “War on Poverty” and “Civil Rights,” former President Lyndon B. Johnson signed the Economic Opportunity Act, the Higher Education Act of 1965 and the Civil Rights Act (Myers & Schirm, 1999).

These bills established the tenant for future federal involvement in education, which historically laid the groundwork for access to postsecondary education. President Johnson said, “We need to do more…to extend the opportunity for higher education more broadly among lower and middle income families,” while he was signing the Economic Opportunity Act (Swail, Redd & Perna, 2003, para. 5). With the passing of this Act came legislation that gave rise to the Office of Economic Opportunity and its Special Programs for Students from Disadvantaged Backgrounds (Burkheimer, Riccobono, & Wisenbaker, 1979). Today, the Special Programs division is known as TRIO Programs.
Talent Search was formulated with the passage of the original Title V of the Higher Education Act of 1965. During this time, the Higher Education Act underwent its first reauthorization (Blake, 1998). The first reauthorization was in 1968, when the Special Services Department was created. By 1968, the three original TRIO programs had been created, Upward Bound, Talent Search and Student Support Services. During 1968, the first of the TRIO programs, Upward Bound, was transferred out of the Office of Economic Opportunity and into the Office of Higher Education (U.S. Department of Education, 2002a).

The 1970s was a decade of expansion. The Higher Education Act of 1972 created the Educational Opportunity Center in its second reauthorization phase. In 1976, the Educational Opportunity Center was equipped with staff and leaderships training authority. By the end of the seventies, most of the programs were in place (McElroy & Armesto, 1998).

The most vital era for TRIO was the 1980s. This entire decade was dedicated to making sure these programs remain in existence for decades to come. In 1980, there was another reauthorization that was of major importance, because with this reauthorization came the adoption of two major concepts for these programs: first generation in college and prior performance. The term First Generation was especially important in this decade because it became essential in defining the eligibility of students applying for participation in TRIO programs (Hixson, 1982). With the inception of this term, the programs moved in a more inclusive direction. This forced the administrators of these programs to look at the origin and impact of non-financial barriers to access and success in postsecondary education. Also, it enabled the TRIO programs to build a broader coalition in Congress, a coalition not just of poor people, but a coalition of all of those who had not had opportunities, or whose constituents had not had opportunities for postsecondary education (Wolanin, 1996).
Soon TRIO programs developed performance standards on which they were viewed. Looking at the prior performance of a TRIO program became very important, both philosophically and politically. Philosophically reviewing the prior performance of a program meant the programs were not around for demonstration purposes only, but they, in fact, are, and should be, a permanent part of every institution's student aid program (Brown, 1993). With the advent of prior performance, institutions could view TRIO programs in the same light as a financial aid department. Both of these together would be complementary because they aimed at a full range of bar-to-equal opportunity in postsecondary education. Prior performance meant that the TRIO programs are an integral part of student aid and that ideally, everywhere that student financial aid exists, so also should the full range of TRIO programs and services exist (Blake, 1998).

From a political standpoint, prior performance has facilitated the development of an extensive cadre of experienced TRIO professionals (U.S. Department of Education, 2008). The staff and administrators of these programs over time have gained political suaveness and experience that allowed them to be the gatekeepers of these TRIO programs and assist with any and all expansion efforts. These programs have been able to persevere from year to year because of these TRIO professionals and this has kept the programs from having to be re-structured, re-organized or relocated each year making these programs politically indispensable (Council for Opportunity in Education, 2002).

In 1986, the fifth reauthorization of the TRIO programs took place. With this reauthorization, the Ronald McNair Postbaccalaureate Achievement Program, the final group of programs was created (U.S. Department of Education, 2005b). This program prepares participants for doctoral studies through involvement in research and other scholarly activities.
Participants are from disadvantaged backgrounds and have demonstrated strong academic potential. Institutions work closely with participants as they complete their undergraduate requirements. Institutions encourage participants to enroll in graduate programs and then track their progress to the completion of advanced degrees. The goal is to increase the attainment of PhD degrees by students from underrepresented segments of society (U.S. Department of Education, 2007).

To construct the total array of TRIO programs that exist today, it took close to three decades. In 1992, these programs underwent one last reauthorization. With this reauthorization of the Higher Education Act came one more important dimension of the TRIO programs. This final reauthorization made TRIO programs a part of the laws in the United States and they were no longer to be administered solely by the Department of Education (U.S. National Archives, 2005). Since their creation, the only significant change that these programs have gone through is having the administrative conditions and operations of each of these programs written into law and not just interpreted by the Department of Education. This action was taken to shield the programs from any political or administrative ramifications that would come with administrations (Council for Opportunity in Education, 2010).

TRIO Programs really benefited from the twin transformations of the 1980s because they have helped TRIO become an institution (U.S. Department of Education, 2010b). At the moment, TRIO programs are stable and continuous. Fortunately, they are not subject to the whim of either legislators or administrations. Part of the political history of the success of TRIO over the last 20 plus years has been that it has a strong leadership committee that has fostered and believed in and advocated on behalf of the TRIO programs. This has been a very important element in the success of the TRIO programs (Gullatt & Jan, 2002).
Since their inception, TRIO programs have evolved considerably. According to the U.S. Department of Education (2008), federal TRIO programs are educational opportunity outreach programs designed to motivate and support students from disadvantaged backgrounds and various minority groups. With an annual appropriation of over $899,423,543, approximately 2,880 active projects and 836,395 participants, Fiscal Year 2009, federal TRIO programs are the largest set of discretionary grant programs in the U.S. Department of Education (U.S. Department of Education, 2011).

Today, TRIO is comprised of eight outreach and support programs targeted to serve and assist low income, first generation and/or disabled minority college students and help them progress through the academic pipeline from middle school to graduate school and beyond. Over 1,200 colleges, universities and community agencies host thousands of TRIO programs. As mandated by congress, two-thirds of the students served by the programs must come from families with incomes under $33,075, where neither parent graduated from college (U.S. Department of Education, 2010d). Thirty-seven percent of TRIO students are White, thirty-three percent are African American, nineteen percent are Hispanic, four percent are Native American, four percent Asian American, and one percent is listed as “Other” (U.S. Department of Education, 2010b). Additionally, more than 7,000 students with disabilities and approximately 6,000 U.S. Veterans are currently enrolled in a TRIO program (Council for Opportunity in Education, 2010).

TRIO now includes a training program for the directors and staff of TRIO projects and a dissemination partnership program to encourage the replication or adaptation of successful practices of TRIO programs at institutions and agencies that do not have TRIO grants (U.S. Department of Education, 2007). Each of the three original federal TRIO programs and the vast
majority of the eight programs are comprised of programs and numerous locations on college campuses nationwide with different missions, goals and targeted participants. Pre-college programs such as the original three TRIO and G.E.A.R. UP programs will now be explored.

**Upward Bound.**

**History and Purpose.**

As a part of the Equal Opportunity Education Act of 1964, Upward Bound, the first TRIO initiative was created. This initiative authorized the creation of 18 pilot Upward Bound programs in 1965 (McCalley, 1969). The purpose of Upward Bound has always been to foster, among low-income youths and potentially first-generation college students enrolled in high school, the skills and motivation necessary for enrollment and success in education beyond high school (Hixon, 1982). Upward Bound provides fundamental support to participants in their preparation for college entrance. The program provides opportunities for participants to succeed in their pre-college performance and ultimately in their higher education pursuits (U.S. Department of Education, 2010b). The goal of Upward Bound is to increase the academic performance and motivation of eligible participants so that they may complete secondary school and successfully enroll in and graduate from institutions of postsecondary education. An integral part of the Upward Bound program is a concerted effort to place every student in college (Christoffel & Celio, 1973).

**Guidelines and Participants.**

Upward Bound has very specific guidelines that students must follow. To participate in Upward Bound, students must be between the ages of 13 and 19 (except veterans), have completed eight years of elementary education, plan to go to college and need Upward Bound services to fulfill their goals (U.S. Department of Education, 2009). Students are generally
recruited for Upward Bound through the high school they attend. Participant selection is based upon recommendations from their counselors, teachers and social agencies. Two-thirds of project participants must be low-income (defined as taxable income less than 150 percent of poverty level) and potentially first-generation college students (Myers & Schirm, 1996). The remaining one-third must be either low income, first-generation college students or students who have a high risk of academic failure (U.S. Department of Education, 2010d).

**Projects and Funding.**

In accordance with Fiscal Year 2010 estimates, the Upward Bound grant amount was $311,069,000. It remains the highest funded of all eight TRIO programs. During the initial phase of the program in 1967, the funding was $27 million (U.S. Department of Education, 2003). The grants for Upward Bound projects are usually for four years. On an annual basis, each Upward Bound project serves 50-150 participants. The program has increased from the original 18 pilot to well over 200 programs. In 2009, Upward Bounds’ budget was $308,930,189. There were 956 awards to about 64,566 participants. The average award amount $323,149 (U.S. Department of Education, 2011).

Upward Bound projects must provide intensive summer residential or nonresidential programs (usually six weeks in length) designed to simulate the college-going experience and an academic-year program. These projects provide academic instruction in mathematics, laboratory sciences, composition, literature and foreign languages (U.S. Department of Education, 2004c). Tutoring, counseling, mentoring, cultural enrichment and work-study programs are also supported. Upward Bound may also provide stipends to its participants who are in the program full-time (Perna, 2000).
Upward Bound also consists of what is known as the Upward Bound Initiative. The Grantee and Participant eligibility for Upward Bound Initiative funding is different from the normal Upward Bound grant. Upward Bound projects receiving supplemental funding under the Upward Bound Initiative must use those funds to serve students eligible for Upward Bound who: (1) attend a target high school in which at least 50 percent of the students were eligible for a free lunch under the National School Lunch Act; and (2) have the greatest need for Upward Bound services. Eligible students having the greatest need for services are those who: (1) have not met the state academic achievement standards for grade eight in reading/language arts; or (2) have not met the state academic achievement standards for grade eight in math; or (3) have a grade point average of 2.5 or less (on a 4.0 scale) for the most recent school year (Federal Register, 2005, p. 3).

**Educational Talent Search.**

**History and Purpose.**

The Higher Education Act of 1965 has been reauthorized six times (McElroy & Armesto, 1998). With the sixth reauthorization came the creation of one of the original TRIO Programs, Educational Talent Search. Authorized in 1965, the first Talent Search projects began operating in 1967, when Congress appropriated $2 million to fund 45 experimental projects under the Higher Education Act (Council for Opportunity on Education, 2010). This program identifies and assists individuals from disadvantaged backgrounds who have the potential to succeed in higher education (Coles, 1998). The program provides academic, career and financial counseling to its participants and encourages them to graduate from high school and continue on to the postsecondary institution of their choice. Talent Search also serves high school dropouts by encouraging them to re-enter the education system and complete their education (Black, 1998).
The goal of Talent Search is to increase the number of youths from disadvantaged backgrounds who complete high school and enroll in and graduate from postsecondary education institutions (Olszewski-Kubilius, 1998).

**Guidelines and Participants.**

Institutions of Higher Education (IHEs), Local Education Agencies (LEAs), Nonprofit Organizations, State Education Agencies (SEAs) and other organizations and/or agencies are eligible to apply. The Talent Search program makes its awards to these places in the form of competitive/discretionary grants (U. S Department of Education, 2002c). Every four years there is a Talent Search competition where these institutions/agencies can vie for one of the grants distributed by the programs. More specifically, institutions of higher education, public/private sector agencies/organizations and in exceptional cases, secondary schools are all eligible for the Talent Search program (U.S. Department of Education, 2009).

The Talent Search program serves students between the ages of 11 and 27 that have completed the fifth grade. In all projects, two-thirds of the participants must be students who are low-income, potential first-generation and minority college students. In addition to counseling, participants receive information about college admissions requirements, scholarships and various student financial aid programs. This early intervention program helps people from families with incomes under $24,000 (where neither parent graduated from college) to better understand their educational opportunities and options (U.S. Department of Education, 2004b). In 2009, over 360,140 students were enrolled in 464 Talent Search programs (U.S. Department of Education, 2011).
Projects and Funding.

Talent Search projects provide tutorial services, career exploration, aptitude assessments, counseling, mentoring programs, workshops and information on postsecondary institutions. Additional services include: a) academic, financial, career or personal counseling, including advice on entry or re-entry to secondary or postsecondary programs; b) exposure to college campuses; c) information on student financial assistance; d) assistance in completing college admissions and financial aid applications; e) assistance in preparing for college entrance exams; f) special activities for sixth, seventh and eighth graders and g) workshops for the families of participants (McElroy & Armesto, 1998, p. 376).

According to the U.S. Department of Education (2010b), Talent Search programs received an estimated $141,954,000 in Fiscal Year 2010. These programs received $142,884,182, $142,743,840 and $141,508,765 respectively in the years 2007-09. Also, in the year 2009, 464 awards were awarded to 304,976 participants. The average award amount was $309,079.

Student Support Services.

History and Purpose.

The year 1968 saw another reauthorization of the Higher Education Act of 1965. With this reauthorization came the formation of the last of the original three TRIO programs, Student Support Services (Jager-Hyman, 2004). This program provides opportunities for academic development, assists students with basic college requirements and serves to motivate students toward the successful completion of their postsecondary education. Student Support Services (SSS) projects also may provide grant aid to current SSS participants who are receiving Federal Pell grants (Council for Opportunity in Education, 2002). The goal of Student Support Services
is to increase college retention, increase the postsecondary persistence and graduation rates of low income, first-generation college students and students with disabilities. This program is specifically aimed toward facilitating these students’ transition from one level of higher education to the next (Blake, 1998).

**Guidelines and Participants.**

For the Student Support Services program, only institutions of higher education or a combination of institutions of higher education are allowed to compete for the programs’ grants that are awarded every four years. Students who are eligible to receive assistance from Student Support Services must be enrolled or accepted for enrollment in a program of postsecondary education at a grantee institution. Low-income students who are first-generation college students or students with disabilities evidencing academic need are eligible to participate in the SSS program. Two-thirds of the participants in any Student Support Service projects must be low-income and first-generation, low-income and disabled or disabled only. One-third of the disabled participants must be low-income students (Gullatt & Jan, 2003). Participants are divided into three categories: a) new participants- those who have never received program services in a given year, b) continuing- the individual is currently enrolled and served or c) prior participant- the individual received services prior to the reporting year but no services were received during the reporting year (U.S. Department of Education, 2005a).

There are four core areas for Student Support Services. The first of those areas is Academic Support. This area encompasses: peer tutoring, professional tutoring, supplemental instruction, assisted labs, computer-assisted instruction, study skills classes/workshops and orientation classes/workshops. The next key area is Counseling and Mentoring service. This consists of: personal counseling, academic advising, financial aid counseling, computer
counseling and employment assistance, transfer counseling, graduate school counseling, professional mentoring and peer counseling/mentoring. Another core area is Cultural and Enrichment Activities, which encompasses: cultural activities, campus visitations and information workshops. The last core area that Student Support Services focuses on is Academic Instruction. This area includes formal academic instruction in both credit and non-credit format in reading, writing, mathematics and English for students with limited proficiency (U.S. Department of Education, 2011). All four of the areas are high priority for Student Support Services.

**Projects and Funding.**

The 2010 Fiscal Year allocation for the Student Support Services program was $301,000,000. The Student Support Services programs received $271,566,777 in 2007, $284,364,806 in 2008 and $301,525,678 in 2009. In 2009, 946 grants were awarded to help aid its 198,057 participants. The average continuation amount was $318,738 (Council For Opportunity In Education, 2010).

**G.E.A.R. UP.**

**History and Purpose.**

The Higher Education Act of 1965 was reauthorized again in 1998, during the tenure of then President Bill Clinton (McElroy & Armesto, 1998). With this reauthorization came the creation of another federally funded pre-college program, the Gaining Early Awareness and Readiness for Undergraduate Programs (G.E.A.R. UP). The grantees of the G.E.A.R. UP award must seek to increase postsecondary access and completion by promoting: 1) information to students and parents on appropriate information on college prep courses, financial assistance and different programs of study, 2) individualized academic and social support to students,
3) parental involvement in education, 4) educational excellence and 5) school reform and student participation in rigorous courses (U.S. Department of Education, 2010c). The goal of G.E.A.R. UP is to provide discretionary grants designed to increase the number of low-income students who are prepared to enter and succeed in postsecondary education institutions of their choice (U.S. Department of Education, 2010b). G.E.A.R. UP officially launched in 1999 as a partnership between low-performing schools, high poverty middle schools, universities, businesses and community based agencies, to provide secondary school systems with the opportunity to expose every child to a pre-college curriculum (Gullatt & Jan, 2003).

Guidelines and Participants.

The G.E.A.R. UP program serves an entire cohort of students beginning no later than the seventh grade and follows that same cohort of students through high school. G.E.A.R. UP provides six-year discretionary grants to states and partnerships that provide services to middle and high schools. Any state agency designated by the governor of their state may apply for G.E.A.R. UP funding. Institutions of Higher Education (IHEs), Local Education Agencies (LEAs) and State Agencies (SEAs) are all eligible for G.E.A.R. UP appropriations (U.S. Department of Education, 1999).

Projects and Funding.

According to the Fiscal Year 2010 estimate, G.E.A.R. UP programs received $323,212,000 in federal funding (Council for Opportunity in Education, 2010). There were 209 awards made to various grantees that serviced 748,000 students. In 2010, there were zero new state grant and partnership awards; however, there were 42 state and 167 partnership continuation awards. In the last three years combined, there have been less than ten new state awards and less than 40 new partnership awards. The total funding for G.E.A.R. UP in the years 2007-2009 was
Research on TRIO and G.E.A.R. UP Programs.

Federal funded pre-college programs, such as TRIO and G.E.A.R. UP, were designed to increase enrollment, ease transition and raise the retention rates of minority students (Edmonds, 2003). To date, TRIO programs are the largest federally funded of all pre-college programs (Department of Education, 2011); yet despite the federal government’s financial support, college enrollment rates continue to be lower for African Americans than for Whites (Kim, 2011).

Researchers, such as Christoffel and Celio, (1973); Fenske, Geranios, Keller et al. (1997); Strayhorn (2011); Swail, Redd and Perna (2003) and Swail and Roth (2000) have provided commentary on these programs. For instance, Swail, Redd and Perna (2003), note that TRIO and other pre-college programs have provided a great deal of support to low income and other students for over 30 years. To lend support to pre-college programs, Swail and Perna released a national survey in an attempt to make information available for educators about the ever-increasing array of pre-collegiate academic development programs available for educationally and economically disadvantaged students. The survey collected information about program participants’ characteristics as well as program goals, services, instructional methods, costs and operational strategies and strengths and weakness of each program. The researchers findings suggested these pre-collegiate academic development programs help disadvantaged students achieve the same scholastic achievement as their more privileged counterparts (Swail & Perna, 2001). However, no empirical data were derived from this study.

Additional commentary on pre-college programs focuses exclusively on the nature and purpose of the programs (Balz & Esten, 1998). Administrators of TRIO, G.E.A.R. UP and other
pre-college programs have added to the commentary regarding these programs. Michal Dennehy, Director of Upward Bound at Boston University stated, “From the outset, Upward Bound at Boston University and many other pre-college programs in the state have recognized the need to support high-school reforms and have organized their services to help program participants who failed their middle-school state assessments, meet their high-school graduation requirements and matriculate at college” (Dennehy, 2006, para. 2).

On the few occasions where federally pre-college programs have been studied since their inception, these programs have been viewed from multiple angles with varying hypotheses and evaluative approaches. Some empirical research has been provided by the U.S. Department of Education on both TRIO and G.E.A.R. UP programs, but this raises controversy because these programs are housed in this department. One opponent to pre-college programs suggested that a sizeable remediation industry has grown up in postsecondary education because of these types of early intervention programs. The commentary suggests that these programs underwrite remediation, and the private sectors too, that allows many companies to make money by coaching and tutoring (Finn, 2006). Other empirical data only look exclusively at one of the three original TRIO Programs. For instance, Burkheimer, Riccobono and Wisenbaker (1979) led a team of researchers in a comprehensive, longitudinal evaluation of Upward Bound programs from 1973 to 1978. Findings from this study suggested that the Upward Bound had an impact on educational aspirations, postsecondary education progress and persistence.

However, 18 years later in two distinctive retrospective analyses of the 1979 Burkheimer, Riccobono and Wisenbaker’s Upward Bound study, conducted by Mathematical Policy Research, Inc. (MPR) came to mixed conclusions about Upward Bounds’ effectiveness based on data from more than 2,800 students in their first year or two of high school (Jager-Hyman, 2004).
The MPR studies further noted that Upward Bound had positive effects on its participants’ overall education attainment but no effect on their persistence in college (Gullatt & Jan, 2003).

The U.S. Department of Education’s Profile on Student Support Services noted these outcomes for the 1998-1999 cohort of freshman students examined at four-year institutions:

- The average cumulative grade point average (GPA) improved from a 2.3 in their freshman year to a 2.6 in their senior year.
- The percentage of students in good academic standing increased from 77% in their freshman year to 88% in their senior year.
- The freshman cohort in 1998-1999 persisted at a higher rate in the second year when compared with a national sample of all the postsecondary students with comparable disadvantaged backgrounds (2004a).

Previous attempts to provide additional empirical data on pre-college programs relied heavily on the evaluation of specific programs at certain institutions. The data from a program evaluation of the Student Support Services TRIO program at Lewis-Clark State College suggested that a one-semester retention rate of 84% for degree seeking provisional students accepted into the Students Support Services program, compared with 76% for all provisionally accepted students (Swail, Redd & Perna, 2003). Conversely, the data from a program evaluation of the Student Support Services TRIO program at the University of Alabama found no evidence of its programs effectiveness (Swail, Redd & Perna, 2003).

Much of the existing literature on federally funded pre-college programs has focused on the practices and some of the outcomes of participating in TRIO’s largest and longest-running program, Upward Bound. Articles on this program have been published in scholarly journals by numerous researchers such as, Butler and Gipson, 1975; Bybee, 1969; Dottin, Linton and

Myers and Schirm (1999) noted that a study in the late 1990s on Upward Bound revealed that students enrolled in the program have a higher expectation of going to college. Walter I. Garms was one of the first researchers to analyze the private and social benefits and costs of the Upward Bound Program (Christoffel & Celio, 1973). Garms was a part of a larger 1965-1969 evaluation of the Upward Bound program completed by the Office of Economic Opportunity by Greenleigh Associates in 1970. Based on the original study by Greenleigh Associates, Inc., three things were noted about the Upward Bound program: (1) Upward Bound students are generally representative of academically underachieving and economically disadvantaged youth in America; (2) the Upward Bound program is an effective dropout prevention program as well as a channel to college and (3) college retention rates of Upward Bound graduates are equal to or greater than the national average (1970, p. 7). Garms noted in his analysis that “it must be remembered that there are important benefits which Upward Bound hopes to achieve that are not readily measurable in dollars, and it may be that one, the opportunity for Upward Bound students
and their children to escape a life in the ghetto, is the greatest benefit of all” (Greenleigh Associates, Inc., 1970, p. 217).

However, Christoffel and Celio (1973) posit Garms’s evaluation was erroneous because he overestimated the college attendance and graduation rates for Upward Bound participants and their siblings. These types of accusations regarding previous studies on pre-college programs over time have led to dissent regarding the effectiveness of these programs. It is estimated that the federal pre-college programs like TRIO and G.E.A.R. UP, serve less than 10% of their eligible clientele (Swail & Roth, 2000).

**Student Departure**

**Theories and Models of Attrition/Retention.**

Student retention is one of the most widely studied areas in higher education (Pascarella & Terenzini, 2005). In addition to the extensive body of research literature that now spans more than four decades, there are books and edited volumes, a journal, and a variety of conferences dedicated solely to student retention (Tinto, 2006, p.1). College student retention at public and private institutions in the United States is indeed problematic and is constantly causing these institutions to continuously spend monies year after year to address this issue. In the 1970s, as part of a broader change in how the relationship between individuals and society was understood, the view of student retention shifted to take account of the role of the environment, in particular the institution, in student decisions to stay or leave (Tinto, 2006, p. 2). According to Wild and Ebbers (2002, p. 504), the primary models for studying student retention are grounded in the work of academic and social integration (Tinto, 1975, 1987, 1993) and involvement (Astin, 1975, 1977).
Student retention has been a major problem for decades now. Back in 1975, Vincent Tinto, one of the most notable researchers in the area of college student retention, released one of his seminal works, “Dropout from higher education,” which attempted to provide campus leaders and institutions answers as to why students were departing from institutions nationwide. While postsecondary enrollment is steadily increasing each year, the ability of each institution to keep students in school remains a difficult challenge (Swail, 2004b). Countless new conceptions have emerged about the factors that influence students’ ability and commitment to persist. Studies of nontraditional students, commuters and other underrepresented populations have identified external factors that affect student departure, such as parental encouragement, support of friends and finances (Cabrera, Nora, Terenzini, Pascarella & Hagedorn, 1999).

Research on student attrition and retention is voluminous (Rendon, 2006). For decades now, researchers such as Astin (1993); Bean and Metzner (1985); Cabrera, Nora and Castaneda (1993) Pascarella and Terenzini (1980); Spady (1970) and Tinto (1993) have developed and advanced many theories and models relating to student departure. Each author has produced pivotal ideas, theories and models that are the foundation for most of today’s attrition/retention framework studies. Table 2.1 summarizes the education models based on retention.

Much of the previous student departure research is based on testing and validating Vincent Tinto’s (1975, 1987, 1993) highly acclaimed Model of Student Departure (Sichivitsa, 2004). Researchers such as Bean (1980, 1982) and Bean and Metzner’s (1985) work focuses on evaluating and exploring Tinto’s Student Attrition/Retention framework and expanding the scope for the usage for Tinto’s model beyond student attrition, integration and retention. Even in some cases suggesting there may be an alternate model of Student Attrition that is more valid depending on the sample population of a study.
Table 2.1. Summary of Education Models on Retention

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Name of Model</th>
<th>Main Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexander Astin</td>
<td>Theory of Involvement</td>
<td>• Empirically based on the UCLA/Higher Education Research Institute (HERI)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Persistence related to student involvement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Behavioral model</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Longitudinal study</td>
</tr>
<tr>
<td>John Bean</td>
<td>Theory of Student Attrition</td>
<td>• Importance of interactions with faculty</td>
</tr>
<tr>
<td>Vincent Tinto</td>
<td>Interactionalist Theory of Student Departure</td>
<td>• Separation from home and environment and integration into college environment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Importance of integration into environment both academically and socially</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Persistent related to student involvement, including interaction with faculty and other students</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Based on experiences, student changes goals</td>
</tr>
</tbody>
</table>

Source: Veenstra, Dey and Herrin [4].
Price and Mueller’s (1981) Model of Turnover by employees in the work place is the foundation of Bean’s Student Integration model. Over the years, Bean has worked to advance his alternative Student Attrition model by developing a model that compares employee turnover to student attrition in college. According to Bean, ten exogenous variables influence satisfaction: grades, routinization, practical value, participation, development instrumental communication, courses, integration, membership in campus organizations and distributive justice. Each of these factors, collaboratively influence a student’s intent to leave or depart from college (Bean, 1980, p. 163). Over the last few decades, Bean and his associates have tested Tinto’s Student Attrition/Retention model in several ways, with each outcome providing Bean with data to support the adaptation of his theoretical model when studying or seeking to understand student persistence or attrition (Braxton & McClendon, 2002).

Tinto’s model was first offered in a literature review (Tinto, 1975), broadly consistent with a considerable range of research conducted by others. Tinto’s model is a culmination of work by two previous researchers. Drawing heavily on the work of Durheim (1951) and his theory of suicide, Spady (1970) suggested that the behaviors of students who drop out are analogous to the behaviors of those that contemplate suicide. That is, individuals considering suicide choose to withdraw from society because they lack shared values and normative support. Similarly, students persist or withdraw from college depending on their social and intellectual experiences within the college community (Eimers & Pike, 1997).

Tinto’s models enhanced Spady’s work by introducing a longitudinal, predictive model that explained more specifically the process that students go through before dropping out of college (Swail, 2004a). In 1986, Tinto employed Van Gennep’s (1960) “rites of passage” to enhance his theoretical framework. That is, college students go through rites of passage
themselves, separating from family and childhood support, experiencing transition where they begin to assimilate new values and behaviors, and then fully incorporating these values and behaviors. According to Tinto, “students who fail to complete successfully these rites are more likely to leave college” (1988, p. 442).

Tinto’s Retention framework was developed after he realized current models failed to capture minority groups (Cabrera, Nora, Terenzini, Pascarella & Hagedorn, 1999). Tinto set out to answer the many attrition/retention questions asked by faculty and administrators around the U.S., when developing his model. Tinto’s model focused on issues of declining enrollment and how student retention is increasingly vital to the survival of most colleges and universities (Swail, 2004a). The model’s central theme, integration, can be understood by any novice (Rendon, 2006). In Tinto’s model, the level of a student’s integration into the social and academic systems of the college, determines whether a student persists or drops out of college (Wild & Ebbers, 2002). For this study, Tinto’s model was applied because it examines persistence or a student’s departure from college, which affects retention.

Theories of departure attempt provide an explanation as to why students leave college. Theoretical models of departure are models based on theories, while non-theoretical models of departure identify factors assumed to be related to retention (Tierney, 1999). Tinto’s model refocused the higher education community’s understanding of student departure from college by demonstrating why persistence is an outcome of the interaction between students and their experiences on a campus environment (Bowers, 2002). This model of Student Departure has had the greatest influence on our understanding of student retention (Swail, 2004a). Tinto’s theory helped guide a large number of dissertations and empirical studies on student retention. Research relating to factors affecting retention rates has been conducted primarily on students who attend
four-year institutions (Johnson, 1980; Pascarella & Terenzini, 1979). Figure 2-1, the model formulated by Tinto, specifies that students entering college bring with them a variety of attributes or pre-college experiences and background characteristics that have an impact on educational expectations and commitments. These educational expectations and commitments represent initial institutional and goal commitments by the students as they first enter college (Seidman, 2005).

Numerous statistical models of persistence/retention have surfaced over the past several decades, focusing on varied factors such as student integration and goal commitment (Cabrera, Nora & Castaneda, 1993; Pascarella & Terenzini, 1991; Tinto, 1993), financial aid (Nora, 1990; St. John, 1994, 1996; St. John, Kirshstein & Noell, 1990), human capital (Manski & Wise, 1983) and organizational attributes (Bean, 1980, 1983; Berger & Braxton, 1998; Nora, Cabrera, Hagedorn & Pascarella, 1996). However, Tinto’s Attrition/Retention model is most frequently used in the study of student retention because it is one of the only models that take into account the many sociological factors that affect a student’s departure from college, unlike Bean’s model (Bowers, 2002).

The predictive validity of the Tinto model has been tested in various institutional settings. Based on their studies in single institutions, Pascarella and Terenzini (1978, 1980) showed that the model appeared to be appropriate for exploring the complex interactions of factors that are affecting student retention or dropout and also for predicting those students who are at risk. Research studies by Kohen, Nestel and Karmas (1978); Levin and Clowes (1982) and Pascarella and Chapman (1983) have utilized Tinto's model to examine the effect of variables derived from the model on college student retention.
Figure 2.1. An Adaptation of Tinto’s Retention Model (1993)
Some researchers such as Attinasi (1989, 1994); Kraemer (1997); Nora, Rendon and Cuadraz (1999) and Tierney (1992, 1999) argue against using Tinto’s model because they suggest it does not appropriately capture the experiences of students of color. However, Tinto’s model provides the best workable and testable foundation for analyzing the multiple factors involved in student departure, especially for those employing quantitative methods (Rendon, 2006).

To date, there are numerous models on college student retention. Researchers such as Beatty-Guenter (1994); Braxton, Sullivan and Johnson (1997); Seidman (2005) and Volkwein (2011) still seek to provide an answer to the many questions institutions have regarding college student retention and the dilemmas they find themselves in. For instance, Figure 2-2, the Beatty-Guenter model, seeks to tackle the retention issue by categorizing retention strategies into five groups: sorting, supporting, connecting, transforming students and transforming the university. Beatty-Guenter, concludes that the key to truly effective overall approaches to improving retention is between these five categories- both in terms of enduring that the retention approach in not too heavily focused in or on two areas (Beatty-Guenter, 1994, p. 113). The Beatty-Guenter Retention Strategy Model provides colleges and universities with a framework for balancing its efforts to improve student retention and for ensuring that all dimensions of student retention and success are addressed (Stromei, 2000). The philosophy of the model, not unlike most models on student retention is rooted in Tinto’s model and his theory that the goal of retention activities should be education and not simply the retention of students (Johnston, 2002, para. 1).
Figure 2.2. The Beatty-Guenter Retention Strategy Model

Source: Johnston, Veronique, Developing Strategies to Improve Student Retention: Reflections from a Scottish University, 2002, 4.
Currently, Tinto’s Model of Student Retention/Attrition continues to be adapted and tested for its strengths and validity on various populations of students. A number of conceptual models have been formulated from these attempts to test Tinto’s model, yet these evaluations of Tinto’s framework must be put the test to determine if they can stand the test of time, similar to the three decades plus, Figure 2-3, Tinto’s framework, has been in existence (Rendon, 2006). Though it has been attacked by some and re-vised by Tinto himself, Tinto’s work has remained the dominant sociological theory of how students navigate through the postsecondary system (Swail, 2004a, para. 3). Tinto notes that research by authors, Berger (2001); Braxton and Brier (1989) and Seidman (2005) is a move in the right direction, but states this work in only the first step (Tinto, 2006, p.7). Thus, in the present study, Tinto’s Student Attrition/Retention model was used because it is the best model in existence to utilize for the examination of the specific population, African American males, and the specific variables selected for use.

![Figure 2.3. Tinto’s Student Integration Model Simplified](source: Marshall, C. (2008).)

**Summary**

Although literature on African American students in college is emerging, there is little that examines the experiences and unique needs of the African American males exclusively.
Furthermore, there is even less literature surrounding the retention rates of African American males in college. While all the extant literature on African American males is significant, few studies have been conducted on African American males and their participation these pre-college programs.

Very little is known about the selection criteria for pre-college programs. Without more empirical data, there is no way of knowing if these students would be more likely than their peers to enroll in college regardless of participation in these programs (Cunningham, Redmond & Merisotis, 2003). Although some research currently exists, further research is needed on the effect of participating in a pre-college/early intervention program (Kezar, 2000). Few pre-college programs either report or keep track of their retention rates. It is estimated that between one-third and one-half of all students who begin pre-college programs do not complete the course of the program (Jager-Hyman, 2004). Since most administrators report the success rates of students who complete the program, ignoring the failure of the program to impact those students who drop out, it makes it especially difficult to estimate the true worth of these programs (Gandara, 2001).

The majority of the extant literature on TRIO and other pre-college programs is commentary and anecdotal (Coles, 1998). Some of the nation’s leading researchers, including Balz and Esten, (1998); Perna, (1998) and Swail and Roth (2000) have suggested that these programs are effective. However, there is a lack of empirical research to support these claims. Levine and Nidiffer (1996) suggested that these programs are necessary and do a great job of targeting students before they reach their high school years, but further research could provide insight into the effects of program implementation in middle or primary school (Perna, 2000).
Even less is known regarding the long term effects of pre-college outreach programs, since most programs do not offer systemic interventions and most administrators do not collect longitudinal data (Gandar, 2001). Swail and Perna (2000) suggest that policymakers do not have a clear idea of whether these programs demonstrate long-term effectiveness, which types of students are most likely to benefit and what constructive programs are likely to cost. More astonishingly, there is no research on the cost/benefit analysis of these programs (Jager-Hyman, 2004).

Although the literature on pre-college programs is growing, more research is needed in certain areas to better understand the role these pre-college outreach programs play in increasing access and success in higher education for low income, first generation and so-called minority students, such as African American males. According to Perna (2002), “For those interested in ensuring equal educational opportunity for all students, understanding the types of intervention that are specifically designed to improve college enrollment rates and retention for groups of students that have been historically underrepresented in higher educations is critical” (p. 71).

Existing literature is very limited in terms of research on the effectiveness of these pre-college programs. For example, little is known about the actual impact of pre-collegiate academic development programs in increasing the number of students entering college, and even less is known about which specific program components are effectively assisting students enter college (Gullatt & Jan, 2003). Further, even less is known regarding the effectiveness of these programs in alleviating the challenges and crises faced by African American male college students. Still today, this has yet to be determined.

There is only a small base of research on pre-college programs collectively, but there is even less evaluative research on TRIO and G.E.A.R. UP programs. Most of the literature is
dominated with studies on one TRIO program, Upward Bound only; yet, none of these have determined the student outcomes for so-called minority students who participate in these programs, such as African American males.

Based on all the extant literature and research provided, to date, very little is known about the efficacy and retention rates of those students who participate in pre-college programs. The literature is nearly silent regarding the effect participation in a pre-college program has on enhancing the retention rates of African American males in college. The existing literature on African American men in college and pre-college programs, such as Upward Bound, Talent Search and G.E.A.R. UP, provide vital and useful information. However, the literature is almost nonexistence regarding how African American males, participation in pre-college programs and retention are related. With this study, the researcher aimed to close the glaring gap in the literature by quantitatively accessing the impact, if any, that participation in a pre-college program has on retaining first-year African American males in college.

This study focused only on the retention of first-year African American males who attended college. Previous studies that have examined the relationship between specific variables (e.g., race, gender and academic preparedness) identified by researchers and retention rates of these students attending higher education institutions are few (Roach, 2001; Edmonds, 2003). Moreover, research studies that examine the relationship among these variables and how they affect retention of African American male first-year college students are almost nonexistent. Therefore, by utilizing Tinto’s Retention framework, the researcher aimed to add to the extant literature regarding the relationship between these specific variables, but also contribute more explicitly to the limited literature on African American men in college and their retention rates.
Numerous theories and models of student departure have been developed to provide an explanation as to why students leave college. A number of these conceptual models have been formulated from attempts to test Tinto’s model, but to determine their effectiveness, these evaluations of Tinto’s framework and newly developed models must be tested more thoroughly (Rendon, 2006). Tinto’s model was the best model in existence to utilize for the examination of African American males in college, and the specific variables selected that may or may not influence their retention rates. Consequently, Tinto’s model on College Student Attrition/Retention seemed the most suitable for this study. The research question posed and the lens for analyzing data (Mertz & Anfara, 2007) will be influenced by Tinto’s model. This study, navigated by Vincent Tinto’s framework, may help determine why so-called minorities, such as African America males, are frequently leaving college campuses.
CHAPTER THREE
METHODOLOGY

The purpose of this study is to assess the effect of participating in a federally funded Upward Bound, Talent Search or G.E.A.R. UP program on retaining first-year African American male college students. The research question that framed and guided this study was:

1) To what extent does participating in a federally funded Upward Bound, Talent Search or G.E.A.R. UP program influence the first-year retention rates of African American males, controlling for differences in, background traits, academic preparedness and parental level of education?

This chapter will describe the methods and procedures that were used to conduct this study. A description of the study design, sampling population, instrumentation selected, procedures undertaken in implementing the study, data collection and analysis are included.

Research Design

The research question in the present study was addressed using a quantitative analysis of nationally-representative data from schools and students collected by the National Center for Education Statistics in their Education Longitudinal Study of 2002 (ELS:2002). The Education Longitudinal Study of 2002 is designed to monitor the transition of a national sample of young people as they progress from tenth grade through high school and on to postsecondary education and/or the world of work. The ELS:2002 study tracks a group of high school sophomores in 2002 through their senior year of high school and to college, if they enrolled in one. The study takes place over a six to ten year period with the final follow up in the years 2010 and 2012. The use of a large database allowed for sophisticated measurement techniques such as descriptives, correlations and regression analysis to serve as predictors as to whether or not participation in a
federally funded Upward Bound, Talent Search or G.E.A.R. UP program influences retention of first-year African American males in college.

Data sets such as the Integrated Postsecondary Education Data System (IPEDS) and other National Center for Education Statistics (NCES) were considered, but the ELS:2002, unlike IPEDS and other NCES data sets, gathers information from students prior to their enrollment into a college, university or technical and vocational school. Moreover, the ELS:2002 data set was the only among them all that provides a generous amount of students, more exclusively African American males, who indicated that they participated in the specific pre-college programs being evaluated, and tracked them over the course of a six to ten year period, from high school and beyond. Additionally, the ELS:2002 data set includes a comprehensive set of variables which will allow for a more diverse look at the various factors that may or may not impact student attrition/retention for African American male students in college.

Sample

In the Spring of 2001-2002, 17,591 eligible high school sophomores were selected to participate in the Education Longitudinal Study of 2002. Of those, 15,362 students who participated in the base year (2002) study, participants were from over 752 Public, Catholic and other Private schools. Additionally, 13,488 parents, 7,135 teachers, 743 principals and 718 librarians also participated.

Data from the ELS:2002, retrieved from the National Center of Education Statistics (NCES) revealed that 15,244 (3,210,779, weighted) students responded to the surveys relative to the present study. Of that total, 2,020 (41,090, weighted) were African American students. One thousand and four (227,674, weighted) African American males were respondents to the ELS:2002 surveys. Out of the total participants in the ELS:2002 study, African American male
respondents who participated in Upward Bound, Talent Search and/or G.E.A.R. UP were selected for the present study.

The Education Longitudinal Study of 2002 (ELS:2002) is designed to provide trend data about critical transitions experienced by students as they proceed through high school and into postsecondary education or their careers (National Center for Education Statistics, 2009). National data from the Education Longitudinal Study of 2002 is stored at the National Center for Education Statistics (NCES). The researcher contacted the Project Officer for ELS and inquired about the present study. In regard to the research question posed, the researcher was informed that the ELS:2002 was the most applicable national data set to use for this study (E. Christopher, personal communication, September 19, 2011).

Instrumentation

In this study, the researcher utilized the Education Longitudinal Study of 2002 (ELS: 2002). The ELS:2002 was conducted on behalf of the National Center for Education Statistics (NCES) of the United States Department of Education by the Research Triangle Institute (RTI)- a not for profit university affiliated research organization headquartered in North Carolina. One of the major questions this study sought to answer was: How do educational antecedents influence students’ access to and persistence in postsecondary education? The ELS:2002 study has two very distinctive features: 1) it is a longitudinal study, therefore the same participants are surveyed repeatedly throughout the study and 2) this study is multi-leveled because the information collected comes from multiple respondent student populations, their parents, teachers, librarians, principals and their schools (NCES, 2009).

This particular study, the ELS:2002, is the fourth in a series of school based longitudinal studies that deal with students’ transition from secondary schooling to college. The ELS:2002
builds on the three previous longitudinal student transition studies, The National Longitudinal Study of the High School Class of 1972 (NLS-72), High School and Beyond (HS&B) and the National Education Longitudinal Study of 1988 (NELS:88). Although these four datasets share many qualities, the ELS: 2002 tried to enhance its three predecessors by updating survey questions and extending the time line.

In the Spring of 2002, when the study began, tenth grade students were tested for achievement and information regarding their attitudes and experiences. Each of the student participants were administered cognitive tests in reading and mathematics. The ELS:2002 student survey consisted of: a) a student questionnaire, b) assessments in reading and mathematics, c) the parent survey, d) the school administrator survey and e) the Common Core of Data (CCD) and Private School Survey (PSS) universe surveys. The weighted response rate for student questionnaire completion was 87.3%. Of the 15,362 student questionnaire completers, 14,543 (95.1%, weighted) also had test data; 13,488 (87.5%, weighted) had parent data; and 15,215 (99%, weighted) had school administrator data. Missing data for key questionnaire and test variables were imputed (Jung, 2006).

**Validity and Reliability**

The validity of an instrument refers to whether one can draw useful and meaningful references from the scores derived from these instruments (Creswell, 2003). According to Suskie (1996), an instrument is considered reliable if it elicits the same results each time it is used under the same conditions, using the same subjects. According to the ELS: 2002’s User’s Manual published, due to the sampling design employed, students and schools had unequal chances of being selected for inclusion in ELS:2002. To compensate for this, a series of weights were adjusted both for unequal selection probabilities and for questions that were not responded to.
Additional detail about these weights is available in the Base Year Data File User’s Manual on the NCES website. In addition, because ELS:2002 employed a stratified cluster sampling procedure, the standard errors that one would find in typical analyses of these data would be under-estimated. ELS:2002, therefore provides information on strata and primary sampling units that may be used in a Taylor series approximation of variance to correct for these design effects (Ingels, Pratt, Rogers, Siegel & Stutts, 2004).

Table 3.1. Summary of ELS:2002 Base Year Completion and Coverage Rates

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Selected</th>
<th>Participated</th>
<th>Weighted Percent</th>
<th>Unweighted Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student assessment¹</td>
<td>15,362</td>
<td>14,543</td>
<td>95.08</td>
<td>94.67</td>
</tr>
<tr>
<td>Parent questionnaire²</td>
<td>15,362</td>
<td>13,488</td>
<td>87.45</td>
<td>87.80</td>
</tr>
<tr>
<td>Teacher rating of students³</td>
<td>15,362</td>
<td>14,081</td>
<td>91.64</td>
<td>91.66</td>
</tr>
<tr>
<td>School administrator questionnaire</td>
<td>752</td>
<td>743</td>
<td>98.53</td>
<td>98.80</td>
</tr>
<tr>
<td>Library media center questionnaire</td>
<td>752</td>
<td>718</td>
<td>95.93</td>
<td>95.48</td>
</tr>
<tr>
<td>Facilities checklist</td>
<td>752</td>
<td>752</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

¹Percentage of cases for which a student questionnaire was obtained for which a cognitive test was also obtained. When a test was not obtained, test results were imputed.
²Indicates a coverage rate, the proportion of participating students with a parent report. More parents participated; completed case numbers reflect the records in the public-use data file, where parent (and teacher) data were excluded for students who did not complete a base year student questionnaire.
³Indicates a coverage rate: ratings obtained from at least one teacher.


In 2004, the same exact group of students from 2002 were surveyed and tested again to measure: 1) any achievement gains in mathematics; 2) changes in their status; whether or not these students transferred to another high school; 3) if they completed high school early and 4) did they leave school prior to graduation. The third round of data collection took place in 2006. In this year, those student participants where surveyed to see: 1) what colleges they applied to; 2) financial aid offers received; 3) enrollment in postsecondary education; 4) employment and earnings and 5) living situation, including whether they began a family or not. Also, the high school completion status was updated for those who had not completed as of 2006. According to the National Center for Education Statistics, the student participants will be interviewed again in 2012 to measure later outcomes, such as persistence and attainment in higher education (2010).
The ELS:2002 study surveyed its participants by using a series of questionnaires. These questionnaires where multiple choice and the students’ answers could range from “yes” to “no” on some questions to specific grades in which the student participated in different programs. One of the major questions the ELS:2002 study sought to answer was: How do educational antecedents influence students’ access to and persistence in postsecondary education (NCES, 2011)?

According to Jung (2006), considering the traits of the ELS:2002 as a longitudinal dataset, the ELS:2002 is especially recommended for studies on educational processes and outcomes, predictors of dropping out and high school effects on student success on postsecondary education or labor force participation. This study sought to look at students who participated in pre-college programs, Upward Bound, Talent Search and/or G.E.A.R. UP and how that impacts the first-year retention rates of African American men in college. The ELS: 2002 longitudinal study is considered particularly suitable for this study because it is one of the most recent national studies available and the 2006 follow-up questionnaire specifically asked student participants questions regarding their participation in pre-college programs, such as Upward Bound, Talent Search and G.E.A.R. UP.

Data Analysis for Present Study

Data were analyzed to examine the research question posed in this study. Prior to conducting the data analysis for this study, several procedures had to be implemented. First, it was necessary to retrieve the data from the Education Longitudinal Study 2002. The data from the ELS:2002 study was extracted from the National Center for Education Statistics’ (NCES) on-line database, EDAT. Once extracted from EDAT, the data had to be imported into statistical analysis software. The Statistical Package for the Social Sciences, more commonly
known as (SPSS) was utilized for the importation and analysis of the ELS:2002 data in this study.

Once extracted and imported, the raw data had to be prepared for analysis. The data preparation process also consisted of several procedures. First, the data had to be cleaned. Once cleaned, all missing information from respondents in the original ELS:2002 had to be properly coded. After this was completed, it was necessary to re-code each dichotomous variable. Then, all outliers were removed from the data set. The final step before data analysis was the selection and application of a statistical weight. The application of a statistical weight allows for an approximation of the sample size’s impact on the entire population, making findings more generalizable and applicable.

Table 3.2 represents the demographic variables used in the present study. Table 3.2 lists the weighted amount of all student respondents, their gender, race and specifically the weighted number of African American males who were this study. Table 3.3 lists the variables used in the statistical analysis as well as the criterion and label for each variable. Each variable was inputted into the SPSS and coded based on the original ELS:2002 survey questions and responses from its participants. Some questions were “yes” or ”no”, while others asked the students to respond based on the range of numbers correlating to which answer best represented the student. Some variables, such as the one for Socio-economic status “SES1” are composite variables built by the ELS:2002 analysis of the data and could not be altered, de-coded or re-coded. However, the ELS:2002 manual notes, it is comprised of several parental level factors, (e.g., level of educational attainment, single/dual parent household & annual income). The coding column in Table 3.2 is reflective of the response types and/or criterion for selection the students in the original ELS:2002 study were allowed to choose from.
Table 3.2. Demographic Variables (Weighted)

<table>
<thead>
<tr>
<th>Student Group</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1,613,738</td>
<td>47.6</td>
</tr>
<tr>
<td>Female</td>
<td>1,597,041</td>
<td>47.1</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>05.3</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian/ Alaska Native</td>
<td>30,855</td>
<td>00.9</td>
</tr>
<tr>
<td>Asian, Hawaiian</td>
<td>124,234</td>
<td>03.7</td>
</tr>
<tr>
<td>Black</td>
<td>441,090</td>
<td>13.0</td>
</tr>
<tr>
<td>Hispanic (no race)</td>
<td>216,746</td>
<td>06.4</td>
</tr>
<tr>
<td>Hispanic (race specified)</td>
<td>268,139</td>
<td>07.9</td>
</tr>
<tr>
<td>Multi-racial</td>
<td>132,840</td>
<td>03.9</td>
</tr>
<tr>
<td>White, non Hispanic</td>
<td>1,996,877</td>
<td>58.9</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>05.3</td>
</tr>
<tr>
<td><strong>Gender &amp; Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Males</td>
<td>227,674</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Table 3.3. Variables Used In Statistical Analysis

<table>
<thead>
<tr>
<th>Program Type</th>
<th>Variable</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talent Search</td>
<td>talent_search</td>
<td>Ever participate in Talent Search?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.00= “No”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.00= “Yes”</td>
</tr>
<tr>
<td>Upward Bound</td>
<td>upward_bound</td>
<td>Ever participate in Upward Bound?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.00= “No”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.00= “Yes”</td>
</tr>
<tr>
<td>G.E.A.R. UP</td>
<td>gear_up</td>
<td>Ever participate in G.E.A.R. UP?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.00= “No”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.00= “Yes”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Academic Preparedness</th>
<th>Variable</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade Point Average</td>
<td>F1RGPP2</td>
<td>1= “1.01-1.50”</td>
</tr>
<tr>
<td>for all course taken</td>
<td></td>
<td>2= “1.51-2.00”</td>
</tr>
<tr>
<td>9-12th</td>
<td></td>
<td>3= “2.01-2.50”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4= “2.51-3.00”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5= “3.01-3.50”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6= “3.51-4.00”</td>
</tr>
<tr>
<td>College entrance</td>
<td>F2PS1EEEX</td>
<td>1=PS school has open admission</td>
</tr>
<tr>
<td>exams scores relative</td>
<td></td>
<td>2=Scores in lowest quartile</td>
</tr>
<tr>
<td>to average scores at</td>
<td></td>
<td>3=Scores in the middle two quartiles</td>
</tr>
<tr>
<td>1st PS institutions</td>
<td></td>
<td>4=Score in the highest quartile</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Background Traits</th>
<th>Variable</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>BYSEX</td>
<td>1= Male</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2= Female</td>
</tr>
<tr>
<td>Race</td>
<td>BYRACE</td>
<td>1= American Indian/Alaska Native</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2= Asian, Hawaiian</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3= Black</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4= Hispanic (no race)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5= Hispanic (race specified)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6= Multi-racial</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7= White, non Hispanic</td>
</tr>
<tr>
<td>Background Traits</td>
<td>Variable</td>
<td>Coding</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------</td>
<td>--------</td>
</tr>
</tbody>
</table>
| Self Expectation: How far do you think you will get in school? | BYSTEXP | 1= Less than high school  
2= Graduate High School or GED only  
3= Attend or complete a 2 year college  
4= Attend college 4 year degree incomplete  
5= Graduate college  
6= Obtain Master’s degree or equivalent  
7= Obtain PhD, MD or other advanced degree |

<table>
<thead>
<tr>
<th>Parental Level of Education</th>
<th>Variable</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socio-Economic Status</td>
<td>BYSES1</td>
<td>Ses1 Composite Variable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Retention</th>
<th>Variable</th>
<th>Coding</th>
</tr>
</thead>
</table>
| No longer enrolled due to academic problems | drop_academic_reasons | 0.00= “No”  
1.00= “Yes” |
To examine the impact of pre-college program participation on the retention rates of first-year African American males in college, the researcher employed three distinct forms of statistical analysis. The first analysis conducted was a calculation of Descriptives for all the participants in the ELS: 2002 sample. Descriptives, the most common form of data analysis, is a branch of statistics dealing with summarization and description of collections of data/data sets (Gravetter & Wallnau, 2009). In the present study, Descriptives were used to calculate the arithmetic mean, median, mode, standard deviation, range and variance for all the ELS:2002 participants.

Next, Bivariate Correlations were calculated on all participants in the original ELS:2002 sample. Bivariate Correlations were used as a statistical test to measure the association or relationship between continuous/interval/ordinal level variables used in this study (Sykes 1992, para. 4). Probability from this correlation was helpful in explaining the nature of the relationship between the variables. Once Descriptives and Bivariate Correlations were conducted on the entire ELS sample, the sample was then restricted to African American males only (BYSEX & BYRACE). Descriptives and Bivariate Correlations were then re-calculated on only the African American males who were ELS:2002 participants that indicated pre-college program participation.

Hierarchical Linear Regression (HLR) was the final statistical analysis employed. In statistics, when focusing on a relationship between a dependent variable and one or more independent variable(s) this technique is often employed. More importantly, according to Sykes (1992), when a researcher is seeking to understand how the typical value of the dependent variable changes when any one of the independent variables are varied, while other independent variables maybe held fixed, Hierarchical Linear Regression is the best procedure to employ.
Regression is widely used for studies that call for predictions or forecasting. Regression models involve the following variables:

- **The unknown parameters** denoted as $\beta$; this may be a scalar or a vector.
- **The independent variable(s),** $X$.
- **The dependent variable,** $Y$.

A regression model relates $Y$ to a function of $X$ and $\beta$.

$$ Y \approx f(X, \beta) $$

The approximation is usually formalized as $E(Y \mid X) = f(X, \beta)$. To carry out the regression analysis, the form of the function $f$ must be specified. Sometimes the form of this function is based on knowledge about the relationship between $Y$ and $X$ that does not rely on the data. If no such knowledge is available, a flexible or convenient form for $f$ is chosen (Gupta, 2000).

Often referred to as random coefficient models, covariance components models and unbalanced models, the Hierarchal Linear Regression (HLR) approach has many advantages over more basic regression and other quantitative techniques, which have been used in the past (Dempster, Rubin & Tsutakawa, 1981; Goldstein, 1987; Longford, 1987 and Rosenberg, 1973). Due to the fact that students are clustered within cohorts that are not statistically independent observations, regular regression techniques may underestimate the standard errors, which may lead to incorrect interpretations of statistical and substantive differences (Gravetter & Wallnau, 2007). Hierarchical Linear Regression (HLR) can be used to compare successive regression models and to determine the significance that each one has above and beyond the others (Office of Institutional Research, 1990).

Osborne (2000) notes, the basic concepts behind hierarchical regression is similar to that of Ordinary Least Squares (OLS) regression. On the base level (usually the
individual level, referred to here as level 1), the analysis is similar to that of OLS regression: an outcome variable is predicted as a function of a linear combination of one or more level 1 variables, plus an intercept, as so:

\[ Y_{ij} = \beta_{0j} + \beta_{1j}X_{1i} + \ldots + \beta_{kj}X_{ki} + r_{ij} \]

where \( \beta_{0j} \) represents the intercept of group \( j \), \( \beta_{1j} \) represents the slope of variable \( X_1 \) of group \( j \), and \( r_{ij} \) represents the residual for individual \( i \) within group \( j \). On subsequent levels, the level 1 slope(s) and intercept become dependent variables being predicted from level 2 variables:

\[ \beta_{0i} = \gamma_{00} + \gamma_{01}W_1 + \ldots + \gamma_{0k}W_k + u_{0i} \]
\[ \beta_{1i} = \gamma_{10} + \gamma_{11}W_1 + \ldots + \gamma_{1k}W_k + u_{1i} \]

and so forth, where \( \gamma_{00} \) and \( \gamma_{10} \) are intercepts, and \( \gamma_{01} \) and \( \gamma_{11} \) represent slopes predicting \( \beta_{0i} \) and \( \beta_{1i} \) respectively from variable \( W_1 \). Through this process, we accurately model the effects of level 1 variables on the outcome, and the effects of level 2 variables on the outcome. In addition, as we are predicting slopes as well as intercepts (means), we can model cross-level interactions, whereby we can attempt to understand what explains differences in the relationship between level 1 variables and the outcome (para. 12).

This study used the dependent variable, retention, to indicate whether or not a student who participated in a pre-college program was retained past their first year in college. Guided by Tinto’s framework and existing literature, the researcher included the independent variable, participation in a pre-college program, of interest at the college level, and relevant control
variables: background traits, academic preparedness, and parental level of education at the student level. The initial models include a dummy variable for those who participated in pre-college programs and those who did not, in response to the research question: To what extent does participating in a federally funded Upward Bound, Talent Search or G.E.A.R. UP program influence the first-year retention rates of African American males in college.

Last, Hierarchical Linear Regression (HLR) was conducted for each of the three pre-college programs in an effort to estimate their influence on the retention of African American males in college, in concert with the study’s theoretical framework. Also, HLR was used to provide data and models relative or unique to those African American males in the ELS:2002 study who participated in the Upward Bound, Talent Search or G.E.A.R. UP programs prior to enrolling into college.

After completing the Descriptives, Correlations and Hierarchical Regression analysis, the statistics derived had to be interpreted. Model summaries were developed and all coefficients were reviewed and decoded. This analysis both addressed and provided a response to the research question posed in this study. A deeper analysis and the answer to the research question for this study will be shared in Chapters 4 and 5.
CHAPTER FOUR
FINDINGS

This chapter is designed to capture and report the findings of the study. Also, this chapter seeks to provide an answer to the research question posed. The research question for this study was:

1) To what extent does participating in a federally funded Upward Bound, Talent Search and G.E.A.R. UP program influence the first-year retention rates of African American men in college, controlling for differences in, background traits, academic preparedness and parental level of education?

This chapter consists of two sections. The first and second sections focus on sample characteristics, the examination of the data analysis and findings from the data analysis.

Table 4.1. Descriptives For All ELS:2002 Participants

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socio-economic status composite, v.1</td>
<td>.0051</td>
<td>.72053</td>
</tr>
<tr>
<td>How far in school a student thinks they will get?</td>
<td>5.13</td>
<td>1.448</td>
</tr>
<tr>
<td>College entrance exam scores relative to average scores at 1st PS institution</td>
<td>1.55</td>
<td>1.439</td>
</tr>
<tr>
<td>GPA for all courses taken in the 9th - 12th grades - categorical</td>
<td>3.83</td>
<td>1.568</td>
</tr>
<tr>
<td>Ever participate talent search?</td>
<td>.5330</td>
<td>.49891</td>
</tr>
<tr>
<td>Ever participate upward bound?</td>
<td>.2914</td>
<td>.45443</td>
</tr>
<tr>
<td>Ever participate gear up?</td>
<td>.3202</td>
<td>.46656</td>
</tr>
</tbody>
</table>

Table 4.1 represents an output of the Descriptives for all students who participated in the ELS:2002 study. Several of the outcomes from this analysis standout from the rest. First, 53% of
all the students in the ELS:2002 study indicated they participated in the federally funded Talent Search program, while 29% and 32% of all participants indicated they participated in Upward Bound and G.E.A.R. UP. Also, the grade point average (GPA), for students in this analysis ranged from “2.01-3.00” Mean 3.83 (SD = 1.57). Also, only 32% of students in the ELS:2002 study reported that they will not only attend college, but they expect to leave with a degree.

Table 4.2 is a display of the correlations between all the independent variables used in the present study. The Bivariate Correlation on all the ELS:2002 respondents indicated that each independent variable demonstrated a significant correlation at either the 0.01 or the 0.05 level (2-tailed.) When examining the programs, based on the (-.321, p < .01) and (-.429, p < .01) correlations, students who participated in Talent Search are likely not to have participated in either Upward Bound or G.E.A.R. UP. As it relates to socio-economic status (SES), there are significant correlations between how far a student thinks they will get (.302, p < .01), GPA for all high school course taken (.338, p < .01) and college entrance exams scores relating to other students in their first year at other post-secondary institutions (.448, p < .01).

Also, as shown in Table 4.2, there are also significant correlations between participants who think they will get further in school, their high school GPA (.390, p < .01) and their college entrance exam scores relating to other students (.418, p < .01) in their first year at other institutions. Additionally, significant correlations were found between the students’ college entrance exams, their SES (.448, p < .01), how far they think they will get in school (.418, p < .01) and their high school GPA (.587, p < .01). Lastly, there is a significant correlation between students who are no longer enrolled due to academic reasons and their college entrance exam scores (.117, p < .01).
Table 4.2. Bivariate Correlations for all ELS:2002 Participants

<table>
<thead>
<tr>
<th></th>
<th>Sex-composite</th>
<th>Student's race/ethnicity-composite</th>
<th>Ever participate talent search?</th>
<th>Ever participate upward bound?</th>
<th>Socio-economic status composite, v.1</th>
<th>How far in school student thinks will get-composite</th>
<th>GPA for all courses taken in the 9th - 12th grades - categorical</th>
<th>Colleg e entran ce exam scores relativ e to averag e scores at 1st PS inst.</th>
<th>No longer enrolle d due to academic problems</th>
<th>Ever participate gear up?</th>
</tr>
</thead>
<tbody>
<tr>
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<td>-.016</td>
<td>-.055</td>
<td>-.023**</td>
<td>.160**</td>
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<td>.166**</td>
<td>.114**</td>
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<td>.600</td>
<td>.758</td>
<td>.020</td>
<td>.982</td>
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<td>.000</td>
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<td>.229**</td>
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<td>.302**</td>
<td>.338**</td>
<td>.448**</td>
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<td>.053</td>
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<td>.738</td>
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<td>.000</td>
<td>.000</td>
<td>.053</td>
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<td>.390**</td>
<td>.418**</td>
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<td>.587**</td>
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<td>.117**</td>
<td>-.053</td>
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<td>.982</td>
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<td>.000</td>
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<td>.000</td>
<td>.296</td>
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<td>.000</td>
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Table 4.2. Bivariate Correlations for all ELS: 2002 Participants cont.

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<th></th>
<th>Sex composite</th>
<th>Student’s race/ethnicity composite</th>
<th>Ever participate talent search?</th>
<th>Ever participate upper bound?</th>
<th>Socio-economic status composite, v.1</th>
<th>How far in school student thinks will get-composite</th>
<th>GPA for all courses taken in the 9th - 12th grades - categorical</th>
<th>College entrance exam scores relative to average scores at 1st PS inst.</th>
<th>No longer enrolled due to academic problems</th>
<th>Ever participate gear up?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No longer enrolled due to academic problems</td>
<td><em>Correlation is significant at the 0.05 level (2-tailed).</em></td>
<td>.057*</td>
<td>.030</td>
<td>-.025</td>
<td>-.079</td>
<td>.045</td>
<td>.001</td>
<td>-.010</td>
<td>.117**</td>
<td>1</td>
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<tr>
<td></td>
<td><em>Correlation is significant at the 0.05 level (2-tailed).</em></td>
<td>.015</td>
<td>.205</td>
<td>.825</td>
<td>.477</td>
<td>.053</td>
<td>.969</td>
<td>.681</td>
<td>.000</td>
<td>.979</td>
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<td>Ever participate gear up?</td>
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<td>.076</td>
<td>-.041</td>
<td>-.429**</td>
<td>-.196**</td>
<td>.053</td>
<td>-.043</td>
<td>-.125**</td>
<td>-.053</td>
<td>-.003</td>
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<tr>
<td></td>
<td><em>Correlation is significant at the 0.05 level (2-tailed).</em></td>
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<td>.244</td>
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<td>.296</td>
<td>.979</td>
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<td>479</td>
<td>479</td>
<td>480</td>
<td>479</td>
<td>435</td>
<td>464</td>
<td>395</td>
<td>83</td>
</tr>
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</table>

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
After running statistical analysis on the entire ELS:2002 sample, it was necessary to perform Descriptives and Bivariate Correlations on the segment of the student population that this study aimed to explore, African American males. Tables 4.5 and 4.6 are layouts of the Descriptive and Bivariate Correlations for this portion of the ELS:2002 sample.

Table 4.3. Descriptives For ELS:2002 African American Male Participants ONLY

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
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<tbody>
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<td>Socio-economic status composite, v.1</td>
<td>-.2234</td>
<td>.66337</td>
</tr>
<tr>
<td>How far in school student thinks will get-composite</td>
<td>4.76</td>
<td>1.524</td>
</tr>
<tr>
<td>Ever participated in talent search?</td>
<td>.6066</td>
<td>.48851</td>
</tr>
<tr>
<td>Ever participated in upward bound?</td>
<td>.3071</td>
<td>.46131</td>
</tr>
<tr>
<td>Ever participated in gear up?</td>
<td>.2551</td>
<td>.43593</td>
</tr>
<tr>
<td>No longer enrolled due to academic problems</td>
<td>.11</td>
<td>.316</td>
</tr>
<tr>
<td>GPA for all courses taken in the 9th - 12th grades - categorical</td>
<td>2.72</td>
<td>1.463</td>
</tr>
<tr>
<td>College entrance exam scores relative to average scores at 1st Post Secondary institution</td>
<td>1.10</td>
<td>1.274</td>
</tr>
<tr>
<td>Sex-composite</td>
<td>1.00</td>
<td>.000</td>
</tr>
<tr>
<td>Student's race/ethnicity-composite</td>
<td>3.00</td>
<td>.000</td>
</tr>
</tbody>
</table>

Findings from Table 4.3 suggest that African American Male ELS:2002 participants who think they will at least attend college, Mean 4.76 (SD = 1.52). Sixty percent of the African American males participated in Talent Search, 31% participated in Upward Bound and 26% in G.E.A.R. UP. The GPA for African American males in the study ranged from “1.51 to 2.50” Mean 2.72 (SD = 1.46). The college entrance exam scores for African American males relative to the scores of other students at their 1st Post Secondary institution are in the lowest quartile.
Table 4.4. Bivariate Correlations For ONLY African American Males (Weighted)

<table>
<thead>
<tr>
<th>Sex composite</th>
<th>Student race/ethnicity composite</th>
<th>Ever Participate in talent search?</th>
<th>Ever Participate in upward bound?</th>
<th>Socio-economic composite</th>
<th>How far in school student thinks will get composite</th>
<th>GPA for all courses taken in the 9th-12th grades</th>
<th>Categoric College entrance exam scores relative to average scores, students at 1st P.S. inst.</th>
<th>No longer enrolled due to academic problems</th>
<th>Ever participate in gear up?</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex composite</td>
<td>Student race/ethnicity composite</td>
<td>Ever Participate in talent search?</td>
<td>Ever Participate in upward bound?</td>
<td>Socio-economic composite</td>
<td>How far in school student thinks will get composite</td>
<td>GPA for all courses taken in the 9th-12th grades</td>
<td>Categoric College entrance exam scores relative to average scores, students at 1st P.S. inst.</td>
<td>No longer enrolled due to academic problems</td>
<td>Ever participate in gear up?</td>
<td>N</td>
</tr>
<tr>
<td>N 227674</td>
<td>227674</td>
<td>17625</td>
<td>17625</td>
<td>227674</td>
<td>207382</td>
<td>198487</td>
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<td>36973</td>
<td>16468</td>
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<tr>
<td>N 227674</td>
<td>227674</td>
<td>17625</td>
<td>17625</td>
<td>227674</td>
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<td>198487</td>
<td>173995</td>
<td>36973</td>
<td>16468</td>
<td></td>
</tr>
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<td>14754</td>
<td>5628</td>
<td>16468</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
Table 4.4. Bivariate Correlations For ONLY African American Males cont. (Weighted)

<table>
<thead>
<tr>
<th></th>
<th>Sex composite</th>
<th>Student’s race/ethnicity composite</th>
<th>Ever participate in talent search?</th>
<th>Ever participate in upward bound?</th>
<th>Socio-economic composite</th>
<th>How far in school student thinks will get composite</th>
<th>GPA for all courses taken in the 9th-12th grades Categorical</th>
<th>College entrance exam scores relative to average scores, students at 1st P.S. inst.</th>
<th>No longer enrolled due to academic problems</th>
<th>Ever participate in gear up?</th>
</tr>
</thead>
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<td><strong>Ever participate upward bound</strong></td>
<td><strong>Pearson correlation</strong></td>
<td>.</td>
<td>.</td>
<td>.374**</td>
<td>1</td>
<td>.116**</td>
<td>.030**</td>
<td>-.070**</td>
<td>.111**</td>
<td>-.051**</td>
</tr>
<tr>
<td></td>
<td><strong>Sig. (2-tailed)</strong></td>
<td>.</td>
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<td>.000</td>
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<tr>
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<td>17625</td>
<td>17625</td>
<td>16442</td>
<td>16542</td>
<td>14754</td>
<td>5628</td>
<td>16468</td>
</tr>
<tr>
<td><strong>Socio-economic status composite</strong></td>
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<td>.008</td>
<td>.116**</td>
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<td>.212**</td>
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<td>.144**</td>
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<tr>
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<td><strong>Sig. (2-tailed)</strong></td>
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<td>.279</td>
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<td><strong>How far in school student thinks will get composite</strong></td>
<td><strong>Pearson correlation</strong></td>
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<td>.116**</td>
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<td>.168**</td>
<td>.212**</td>
<td>.334**</td>
<td>.144**</td>
</tr>
<tr>
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<td><strong>Sig. (2-tailed)</strong></td>
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<td>.279</td>
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<td>227674</td>
<td>207382</td>
<td>198487</td>
<td>173995</td>
<td>36973</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.05 level (2-tailed).  
***. Correlation is significant at the 0.01 level (2-tailed).
### Table 4.4. Bivariate Correlations For ONLY African American Males cont. (Weighted)

<table>
<thead>
<tr>
<th>Sex - composite</th>
<th>Student's race/ethnicity composite</th>
<th>Ever participate in talent search?</th>
<th>Ever participate in upward bound?</th>
<th>Socio-economic composite</th>
<th>How far in school student thinks will get composite</th>
<th>GPA for all courses taken in the 9th-12th grades categorical</th>
<th>GPA for all courses taken in the 9th-12th grades categorical</th>
<th>College entrance exam scores relative to average scores, students at 1st P.S. inst.</th>
<th>No longer enrolled due to academic problems</th>
<th>No longer enrolled due to academic problems</th>
</tr>
</thead>
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<td><strong>Sig. (2-tailed)</strong></td>
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<td><strong>Pearson correlation</strong></td>
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<tr>
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<tr>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>36973</td>
<td>36973</td>
<td>5628</td>
<td>5628</td>
<td>36973</td>
<td>33707</td>
<td>30648</td>
<td>30001</td>
<td>36973</td>
<td>5336</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.05 level (2-tailed).**

**. Correlation is significant at the 0.01 level (2-tailed).**
Table 4.4. Bivariate Correlations For ONLY African American Males cont. (Weighted)

<table>
<thead>
<tr>
<th>Ever participate in gear up?</th>
<th>Sex-composite</th>
<th>Student’s race/ethnicity composite</th>
<th>Ever participate in talent search?</th>
<th>Ever participate in upward bound?</th>
<th>Socio-economic composite</th>
<th>How far in school student thinks will get composite</th>
<th>GPA for all courses taken in the 9th-12th grades categorical</th>
<th>College entrance exam scores relative to average scores, students at 1st P.S. inst.</th>
<th>No longer enrolled due to academic problems</th>
<th>Ever participate in gear up?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson correlation</td>
<td>.380**</td>
<td>.129**</td>
<td>.028**</td>
<td>.045**</td>
<td>-.225**</td>
<td>-.100**</td>
<td>-.064**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>16468</td>
<td>16468</td>
<td>16468</td>
<td>16468</td>
<td>16468</td>
<td>15285</td>
<td>15384</td>
<td>14333</td>
<td>5336</td>
<td>16468</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2 tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 4.4 exhibits the correlations between the independent variables used in the present study in relation to only the African American males who participated in the ELS:2002 that indicated they participated in a federally funded Upward Bound, Talent Search or G.E.A.R. UP program. Similar to the Bivariate Correlation on all the ELS:2002 respondents, the correlation on African American males only showed significant correlations between each independent variable at either the 0.01 or the 0.05 level (2-tailed).

When examining the programs for only African American males, as it was with the correlation for the entire ELS:2002 sample, students who participated in Talent Search are likely not to have participated in either Upward Bound (-.374, p < .01) or G.E.A.R. UP (-.380, p < .01). Relating to socio-economic status of the African American male participants, there still remains significant correlations, although less significant, between how far a student thinks they will get (.168, p < .01), GPA for all high school course taken (.212, p < .01) and college entrance exams scores relating to other students at their first postsecondary institution (.334, p < .01).
Even in the process of looking at African American males only, significant correlations are again found between participants who think they will get further in school, their high school GPA (.418, p < .01) and their college entrance exams scores relating to other students (.375, p < .01). Comparatively, the significant correlations found between the students’ college entrance exams, their SES (.334, p < .01), how far they think they will get in school (.375, p < .01) and the high school GPA (.548) for African American males are slightly less than those for the entire sample.

Uniquely to the African American males in the ELS:2002 study, there are inverse, yet significant correlations between those participants in Upward Bound (-.051, p < .01) and G.E.A.R. UP (-.064, p < .01) who are no longer enrolled due to academic reasons. However, African American males who participated in Talent Search were more likely to still be enrolled and less likely to drop out due to academic problems (.100, p < .01).

Guided by the theoretical framework for this study, to answer the research question: Does participation in the federally funded pre-college programs, Upward Bound, Talent Search and G.E.A.R. UP influence the retention rates of first-year African American males in college? Hierarchical Linear Regression (HLR) was employed. HLR was employed on three separate occasions in this study, once for each of the three pre-college programs the researcher aimed to test to find their impact, if any, on the retention of African American males in college.

Before running the HLR procedure, each of the control variables had to be identified and inputted into SPSS to set up the analysis correctly. In the present study, the researcher aimed to study the influence of participation in Upward Bound, Talent Search and G.E.A.R. UP on the retention rate of first-year African American males, controlling for, differences in background
traits, academic preparedness and parental level of education. Thus, each control variable, listed in Table 3.2, was imputed prior to the analysis.

The control variables were selected based on the theoretical framework that guided this study and a synthesis of current literature. For example, research by Lee and Burkam (2002) notes that students who have a higher socioeconomic status, hail from better academically driven high schools and their parents most likely attended college. As a result, these students are more likely to attend college. The control variables were chosen to “even the playing field,” so all student participants are equal regardless of their background traits, academic preparedness and parental level of education. Once the control variables were selected and imputed, the Hierarchical Linear Regression procedure was then employed for all three pre-college programs, Upward Bound, Talent Search and G.E.A.R. UP. Tables 4.5, 4.6 and 4.7 illustrate some of the most notable outcomes of each analysis.

<table>
<thead>
<tr>
<th>Table 4.5. Hierarchical Linear Regression (ANOVA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>1 Regression</td>
</tr>
<tr>
<td>Residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>2 Regression</td>
</tr>
<tr>
<td>Residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>3 Regression</td>
</tr>
<tr>
<td>Residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Table 4.5 depicts the Analysis of the Variance (ANOVA) that is a part of the Hierarchical Linear Regression statistical procedure. When running Linear Regression it is highly
recommended that the ANOVA be viewed first, as it tests the model’s fit (Sykes, 1992). The last column “Sig.” is an output of the test for significance of the model. Basically, the “Sig.” answers the question: Did the model explain the deviations in the dependent variable? The “Sig.” indicates the “goodness of fit” of the model. As with all ANOVAs, the lower this number, the better the fit. If the “Sig.” is greater than 0.05, it is concluded that the model could not fit the data. Based on the ANOVA above in 4.7, the” Sig.” is (.000) for all three models. This informs the researcher that the model was a significant and a good fit.

Next, the “F” column was observed. The “F” in the ANOVA is a demonstration of the comparison of models and testing of the hypothesis (Gravetter & Wallnau, 2009). For example, in this study, the researcher was looking at the dependent variable, retention and how it relates to the independent variables chosen. Thus, the main two models would be:

1. Retention= Beta_1 + Beta_2*ses+Beta_3*student expectation+Beta_4*high school GPA+Beta_5*college entrance scores+Beta_6*no longer enrolled due to academic reasons+Beta_7*participation in talent search

2. Retention= Beta_1

   a. This is testing the hypothesis: \( \beta_1=\beta_2=\beta_3=\beta_4=\beta_5=\beta_6=\beta_7+0 \)

Based on the “F” in the ANOVA above, since the “F” is not significant, the researcher cannot state that any one of the three models are better than the other. In other words, the use of the independent variables has not assisted in predicting the dependent variable for this study.

Lastly, in the ANOVA above, the Sum of Squares (SSS) had to be observed. The Total Sum of Squares (TSS) on the row labeled “Total” is the total deviations from the dependent variable. The aim for using regression is to explain these deviations by finding the best betas that can minimize the sum of squares (Osborne, 2000). The Explained Sum of Squares (ESS) on the
row labeled “Regression” is the amount of TSS that could be explained by the model. Lastly, the RSS, on the row labeled “Residual” is the amount that could not be explained by the TSS minus the ESS. The R-square located in Table 4.6 is the ratio of the ESS/TSS (Gravetter & Wallnau, 2009). After analyzing the ANOVA, it was then necessary to examine the Hierarchical Regression Model Summary, Table 4.6.

Table 4.6. Hierarchical Linear Regression Model Summaries

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.069a</td>
<td>.005</td>
<td>.005</td>
<td>.12723</td>
<td>.005 547.983 2 227671 .000</td>
</tr>
<tr>
<td>2</td>
<td>.069b</td>
<td>.005</td>
<td>.005</td>
<td>.12723</td>
<td>.000 2.101 2 227669 .122</td>
</tr>
<tr>
<td>3</td>
<td>.070c</td>
<td>.005</td>
<td>.005</td>
<td>.12723</td>
<td>.000 12.472 1 227668 .000</td>
</tr>
</tbody>
</table>

In models one, two and three, the researcher first observed the “Adjusted R Square” for each analysis. This column is an output of the measure of the variance in the dependent variable, (retention) which was explained by variations in each of the independent variables in this study. Based on this output (.005) of the variance was explained.

After observing the Adjusted R Squared, it was necessary to next look at the “R Square” for the procedures. The R Square measures the proportion of the variation in the dependent variable (retention), which was explained, by the variations in each of the independent variables (Sykes, 1992). In these models (.005) of the variation was explained.

Next, in an effort to measure the dispersion of the dependent variable’s estimate around its mean, the “Standard Error of the Estimate” was viewed. For the study, the Standard Error of the Estimate was (.12723) or 12%. Since the Standard Error of the Estimate in this study was more than 10% of the mean, it was determined that it was relatively high.

The final step in the examining the HLR analysis was the review of the coefficients in Table 4.7, as the researcher still sought to find the answer to the research question: whether or

Table 4.7. HLR- African American Male Coefficients

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.867</td>
<td>.001</td>
<td>887.388</td>
<td>.000</td>
</tr>
<tr>
<td>Socio-economic status composite, v.1</td>
<td>-.012</td>
<td>.000</td>
<td>-.061</td>
<td>-27.832</td>
</tr>
<tr>
<td>How far in school student thinks will get-composite GPA for all courses taken in the 9th - 12th grades - categorical</td>
<td>.004</td>
<td>.000</td>
<td>.043</td>
<td>18.715</td>
</tr>
<tr>
<td>College entrance exam scores relative to average scores at 1st PS institutions</td>
<td>2.521E-005</td>
<td>.000</td>
<td>.000</td>
<td>.110</td>
</tr>
<tr>
<td>Ever participate in talent search?</td>
<td>-.001</td>
<td>.000</td>
<td>-.005</td>
<td>-1.949</td>
</tr>
<tr>
<td>Ever participate in upward bound?</td>
<td>.007</td>
<td>.002</td>
<td>.007</td>
<td>3.532</td>
</tr>
<tr>
<td>Ever participate in gear up?</td>
<td>-.021</td>
<td>.002</td>
<td>-.021</td>
<td>-9.992</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Retention “Ever dropped out”?

Table 4.7, the Coefficients table, is a very vital output of the HLR analysis. This table provides information on the confidence with which the researcher can support the estimate for each such estimate by looking at columns “T” and “Sig.” (Gupta, 2000). In the present study, the value of “Sig.” is less than 0.05. This allowed the researcher to assume the estimate in column “B” can be asserted as true with a 95% level of confidence. It is important to view the “Sig.” first
because if the value is 0.1 then the coefficient estimate is not reliable because it has “too” much dispersion/variance. Only those variables with “Sig.” below the 0.1 level were explored in detail because those variables with a “Sig.” level above 0.1 would make the “B” estimate unreliable and have no statistical significance (Sykes, 1992). Table 4.7, also provided information on individual variables and the Estimated Coefficients or βeta, which is located in column “B,” on the dependent variable retention. In reviewing each of the individual variables in relation to the dependent variable, retention, several relationships emerged.

According to Table 4.7, there is a significant inverse relationship between the socio-economic status (β = .012) of African American males in this study and retention. Based on this finding, the researcher can assert that the higher the SES for these students, the more likely they are to not drop out of school or be retained. There is moderate significance in the relationship between how far an African American male student thinks they will go (β = .004) and retention. Also, there is a small significant inverse relationship in African American males as it relates to their college entrance exam scores (β = -.001) and retention. Also, those male students who have higher entrance exam scores are more likely to be retained in college.

Most importantly, housed in Table 4.7, is the answer to the research question in the study.

1) Does participation in a federally funded Upward Bound, Talent Search or G.E.A.R. UP program influence the first-year retention rate of African American males in college, controlling for differences in, background traits, academic preparedness and parental level of education?

By examining the “Beta Coefficient” for each pre-college program individually, the researcher was able to determine the influence, if any, the programs had on the retention of African American males in college. There is a small significance (β = .007) between those males
who participated in the federally funded Talent Search program. Consequently, African American males who participated in Talent Search are more likely to be retained. That was the only program that had any statistical significance relating to the retention of African American males in college. Those students who participated in Upward Bound had a beta of ($\beta = -0.21$), while those who participated in G.E.A.R. UP had a beta of ($\beta = -0.013$), demonstrating no influence on the retention rates of African American males in the ELS study.

While results suggest there are significant correlations experienced between variables such as socio-economic status, how far a student thinks they will get, GPA for all high school course taken and college entrance exams scores relating to other students at their first post-secondary institution, these numbers are still less significant for African American male students then for other students in the ELS:2002 sample. Also, out of the three pre-college programs that African American males participated in, only one of the three showed any significance to in relation to their retention rates. Chapter 5 will discuss these findings in the present study and the answer to the research question in greater detail. Additionally, the chapter will provide an overview of the study, major findings, significance of this study, implications, a conclusion and recommendations for further research.
Summary of Study

Every year students enroll in and leave college in droves (Edmonds, 2003). Student departure is a very complex puzzle that still today remains to be unsolved. Depending on where you are in this country, some 50% to 60% of students are lost during the freshman and sophomore years of college (Kim, 2011). Student attrition/retention, a major policy issue, is one of the most difficult challenges faced by all higher education institutions nationwide. As students enroll, stop-out, dropout or transfer, institutions are left with the reality that no one truly knows why these students leave. Absent of data as to why their students are departing, the mystery of student departure will continue to plague these schools for many centuries to come.

The negative effects of low student retention rates are not only affecting the schools. As students leave college, the student diversity, or lack thereof is impacted. Many students who attend Predominately White Institutions with high student departure rates are directly affected because these institutions suffer with a lack of diversity relative to underrepresented populations of students, such as African American males, who are already nearly invisible on these campuses nationwide. With African American males making up a large majority of the prison population in the U.S., but a significantly less proportion of those students enrolling in postsecondary education, there is indeed a need to solve the issue of those who enroll, but depart during the first week, month or semester of the school year.

Research states that African American students as a collective, delay entry into postsecondary schools after their high school graduation, unlike their White counterparts (Gandara, 2001). Thus, it is imperative that these students, more explicitly, African American
males are reached prior to completion of high school. One suggested way to attempt to reach these young men is through federally funded pre-college programs. Pre-college programs come in different shapes and sizes. Some programs allow students to participate as early as 6th grade, while others take students in their sophomore, junior or senior years of high school. Dedicated to low income and so-called minority groups, such as African American males, pre-college programs, according to their mission, aim to help these students, not only enroll in postsecondary education, but also prepare them to graduate. Whether or not these types of programs are successful in providing African American males an opportunity to reach college and leave with a diploma still remains to be thoroughly examined. In an effort to provide more empirical data regarding African American males, participation in pre-college programs and retention, the present study aimed to determine if pre-college programs are effective in realizing their goals for African American men in college, particularly as it relates to their retention.

The present study was conducted on a national group of respondents to the Education Longitudinal Study of 2002 (ELS:2002), that tracked a group of high school sophomores over a six-ten year period. There were 15,362 students participants from over 752 schools. Additionally, there were 13,488 parents, 135 parents, and 718 librarians who participated in the ELS:2002 study. By using this national data set, the researcher aimed to assess the impact of participation in a federally funded Upward Bound, Talent Search or G.E.A.R. UP program on retaining first-year African American male college students.

Guided by Vincent Tinto’s Student Attrition/Retention framework, descriptive analysis was employed to the sample in the present study. By data augmentation, the researcher was able to report differences between those who participated in the ELS:2002, mainly African American males. Hierarchical Linear Regression techniques were used to explore and analyze the
relationship between the study’s dependent variable, retention, and its independent variables (i.e., high school GPA, socio-economic status, student expectations, etc.).

Major Findings, Discussion and Implications

All ELS:2002 Students.

- According to Table 4.2, students, regardless of race, who participated in one pre-college program, were not likely to have participated in the other pre-college programs.

Each pre-college program has its own set of criteria that each student must meet to gain entrance into the program. For instance, students who participate in Talent Search must be potential first generation, low-income minority students between the ages of 11 and 32. While G.E.A.R. UP participants are grouped in a cohort and followed from seventh grade through high school.

- There is a significant relationship between how far a student thinks they will get in school and their high school GPA.

According to findings from this study listed in Table 4.2, students who expect to do better in school, do. This is consistent with theories posited by Simonson and Bullard (1975) who studied a group of 159 students and found a strong relationship between students who expected to do better in school and as a result they performed better. They also noted, superior thoughts about school performance led to a higher grade point average.

- Findings suggest there is a significant relationship between the socio-economic status and high school GPA.

As reported in Table 4.2, students with a higher socio-economic status are more likely to perform better academically in school. Traditionally, in higher SES households, parental level of
education impacts the students themselves. Those students who have parents who did well in high school, completed college and went on to a successful career are more likely to do much better in high school and college as well (Lee & Burkam, 2002).

- Also reported in Table 4.2, there is a significant relationship between students who are no longer enrolled due to academic reasons and their college exam scores.

Advocates and opponents for standardized test scores, such as Angoff and Johnson (1990); Hartnett and Centra (1985) and Pike and Phillippi (1989) have all conducted studies on the use and the acceptance of these tests. Some findings suggest that students who perform better on these types of test are most likely to do well at each successive level of education. Several of these proponents also argue that students who perform better on their college entrance exams are more likely to be retained all four years in college.


As it relates to African American males in the ELS:2002 study, several findings emerged. As shown in Table 4.4, one of the most significant findings in this study is that African American males expect to attend college. This is a critical finding because knowledge that these students plan to attend college, indicate that more supportive relationships, planning and programming may need to be developed and dedicated to inspire African American males to not just complete high school, but go on to college and ultimately graduate. Thus, enabling African American males to not only provide a better life for themselves, but others as well.

Secondly, in accordance with findings in Table 4.3, this study found that the high school GPA for African American males ranges from “1.51 to 2.50” Mean 2.72 (SD = 1.46). This number is significantly lower than the GPA range for all students in the ELS study, “2.01 to
3.00” Mean 3.83 (SD = 1.57). Findings of this nature suggest that the pedagogy for all students and philosophy of learning may not be as effective for African American males. Findings of this nature suggest that other factors may come into play when examining the learning capability of African American males in school that may be negatively impacting their academic pursuits. If these students are already struggling with the subject matter in elementary, middle and high school, that may significantly reduce their ability to complete any level of secondary education and be academically eligible/prepared to attend and be successful at a higher education institution.

It was also discovered that college entrance exam scores for African American males are in the lowest quartile. The finding that the grade point averages for these students are low implies that there may be issues with their ability to learn and comprehend course material, study and successfully pass examinations or there are some external circumstances or factors that are impeding on their educational pursuits. The high school grade point average is a measure of academically how well a student performs in school. If African American males are struggling significantly to perform well at the high school level, in some instances it may be concluded that they are not prepared to perform successfully on exams like the Scholastic Assessments Test (S.A.T.) or American College Testing (A.C.T.).

According to the findings in Table 4.4, consistent with the findings from the examination of all the ELS:2002 participants, African American males with a higher socio-economic status are more likely not to drop out of college. Consistent with theories by Lee & Burkam (2002), these findings suggests the more “well off” parents are, the more likely their children will attend better secondary schools and be better prepared for the collegiate academic environment. Also, findings from the present study indicate that African American males, regardless of their high
school GPA, socioeconomic status or parental level of education experience challenges once in college that negatively affects their ability to remain enrolled.

**Pre-college Programs and African American Males**

Additional outcomes from this study located in Table 4.7 implies that of the three pre-college programs tested in this study, Talent Search was the only program to have any significant influence on the retention of African American males students in college. There was no statistical significance between those African American males who participated in either of the other two programs, Upward Bound & G.E.A.R. UP and their retention rates.

In response to the question posed by the title of this study, *Holy or Unholy Matrimony: Does Participation in a Pre-college Program Influence the First-Year Retention Rates of African American Males in College?*, the marriage between participation in Talent Search—only, as it relates to retention, is “holy” or significant. However, the significance of this matrimony is very small to say the least. In light of the usage of the retention theoretical framework by Tinto and the statistical analysis techniques chosen, only about 1.1% of the variance in the retention rate of African American males and their participation a pre-college program was explained in this study. Therefore, leading the researcher to lend support to Astin, who suggested in his book, *Minorities in Higher Education: Recent Trends, Currents Prospects, and Recommendations*, numerous pre-college recommendations calling for re-examining current policies and practices, suggesting new services, and spelling out urgently needed changes in broad areas of concern, including testing and grading, pre-collegiate education, academic and personal support systems, equality of access, bilingualism, government programs, minority women, evaluation of minority-oriented programs and statistical research on minorities. Ultimately, indicating that perhaps it is what happens in college, not before college that matters the most (1993).
Tinto’s model demonstrates certain pre-college processes or characteristics that all students go through. Pre-college programs were designed to help students deal with some of these pre-college experiences. These programs were designed to help disadvantaged students, such as African American males, cope with their external circumstances and to prepare them academically. Further, these programs are supposed to aid these students in goal development and attempt to help these students establish their level of commitment to obtaining these goals.

This study examined the impact of pre-college programs participation for African American males and their ability to be retained in college. Absent of variables related to their academic integration and social integration, a small, yet significant impact was found for African American male Talent Search participants—only, which suggest there is something more prevalent once on campus, or perhaps off, that is negatively affecting these students and their ability to be retained in college and other pre-college programs are not truly fulfilling their missions and goals.

Several implications for policy and practice are derived from the present study. The results produced data about the relationship between African American males and Retention. School counselors, program directors and on-campus retentions specialist should consider the results of the study when developing a plan to aid African American males in secondary and postsecondary education. These students face a number of unique challenges as they attempt to navigate the educational pipeline. Findings in this study indicate that if African American male students think they will go further in school, they will. As a result, programs that involve mentoring, self-esteem and self-efficacy building may be most appropriate for these students earlier in their childhood.

One of the major findings in this study is that African American males plan to attend
college. In the role of a parent, teacher, educational facilitator or administrator, it is imperative to continue to motivate and encourage these young men to pursue their postsecondary goals and aspirations. If African American males state they plan to attend college, it is essential that they be provided with the necessary skills and tools to help them succeed beyond high school. Also, the curriculum or pedagogy for these students may need to be reviewed, assessed and perhaps tailored to address the unique needs of these students and promote an academic learning environment where these students can excel along with their other class counterparts.

Higher education institutions, where most of the pre-college programs are housed, can use the findings in the present study to assists with their recruitment and admissions efforts. Recruitment specialist, informed by this study, should address the need for more diversity on campus by seeking out minority students, specifically African American males who openly express an interest in going to college prior to their senior year. The earlier these students have knowledge about these colleges and their expectations to gain admission, the earlier a student can prepare to meet these standards of admission.

Understanding that African American males tend to have lower grade point averages and college entrance exam scores, pre-college programs and secondary schools alike may need to put more focus on things that may help improve a student’s grades and exam scoring. It may be necessary to provide more workshops on significant academic themes such as taking notes, learning how to study, test taking and why going to college essential.

Last year alone, a whopping $800 million dollars was spent on numerous federally funded pre-college programs whose collective mission is to increase enrollment, ease transition and raise the retention and graduation rates of so-called minorities in this country, such as African American males. According to findings in the present study, those who participated in
Upward, the most significantly funded of all pre-college programs, were no more likely to be retained if they did not participate in this program. Contrariwise, another major finding in this study implies that only the African American males who participated in the Talent Search, not the most significantly funded program, were likely to be retained.

Absent of numerous holistic, meticulous and longitudinal program evaluations that thoroughly examine the breadth and depth of these pre-college programs, its administrators and participants, there is no way to truly measure the actual impact, if any, these programs are having on minority students like African American males. The federal government, after investing mammoth amounts of funds, especially with the state of the current economy, should be very interested in finding out if these types of investment are providing the best “bang for the buck.”

The findings from the present study suggests, prior to funding these programs in the future, new in-depth program evaluation procedures need to be established to determine if they are having a significant impact on their participants. Pre-college program sites who do not partake in these evaluations or who do not meet the standards set by the mission and goals of these programs should be subject to some type of penalty or lose their federal funding immediately.

Campus leaders and the program administrators must begin to consistently and accurately evaluate these programs on their respective campuses. It is of necessity that each institution holds itself accountable and work to make sure that their pre-college program(s) are successful in helping African American males, and all underserved students, understand the importance of educational attainment, both on the secondary and postsecondary levels.

Conclusion

The data are clear. While access to higher education for low-income students, such as African American males has increased and gaps in access between groups decreased, the gap between
well-to-do and poor students in college completion remains (Tinto, 2006, para 3). As the presence of African American males in prison is steadily rising, yet their enrollment rates in college are remaining stagnate, the researcher sought to find out if pre-college programs help keep African American males remain in college. More specifically, the goal of this study was to find, if any, the influence of participation in a pre-college program on the first-year retention rates of African American men in college, controlling for, differences in their background traits, academic preparation and parental level of education. The results of this study advise that the more than $800 million dollars spent annually on pre-college programs such as Upward Bound, Talent Search and G.E.A.R UP may best serve underrepresented, low-income populations like African American males, if the vast majority of the monies were appropriated into the only college preparation program in this study to have any impact on retention—Talent Search, other early intervention programs similar to Talent Search or the creation of a more innovative pre-college program(s) that can truly help institutions nationwide address their retention challenges by better preparing students, regardless of color, for the collegiate experience and environment.

Talent Search, unlike other pre-college programs, accepts student participants as early as 11 years old, as long as they have completed the fifth grade. This program, as stated in its overview, is classified as an early intervention program. This is one of the reasons the researcher believes they are successful in assisting African American males get to college and be retained. The earlier the programs can intervene, the better for the student. Talent Search students are provided very important services like counseling and information on access to college at an earlier age.
Most other pre-college program participants don’t receive services until they are well into their teenage years, and by then these students are already facing additional obstacles and challenges academically and personally that may hinder their academic pursuits. The key is investing more into early childhood education. Hence, the success of Talent Search is attributed to the program’s premise that the earlier the students are reached, the more prepared they will be to handle life’s challenges.

In speaking with a program director of one of the Talent Search programs, the following questions were posed and responses given:

- In the present study, Talent Search was only pre-college program out of a study of Upward Bound, Talent Search and G.E.A.R. UP to have any significant influence on the retention rate of African American males in college.
  
  1. Can you explain how your Talent Search program recruits African American males?
  
  2. What does your Talent Search program offer specifically for African American males?
  
  3. Why do you think Talent Search out of the other two demonstrated a significant impact on retention for African American males?

The program director’s response:

Students who participate in the Educational Talent Search program are potential first-generation and low income students, who otherwise would have a limited chance to complete high school, let alone, college without some extra attention, love and care. Our students are usually recommended to us by school counselors, teachers and/or community partners like church pastors or coaches. Every now
and again, we will get parents who recommend other students or sign their child up for the program.

I believe in the Talent Search program. I think it helps all minority students in the program deal with critical issues that would derail a student who had no one to talk to, or nowhere to go to deal with their issues. Although nationally, African American students do not make up the large majority of Talent Search’s participants, we do see improvements personally and academically in these students. We have to work a little harder on the African American males, but by providing them with someone to talk to or hang out with, especially another African American male, we see better results.

Personally, I believe all the pre-college programs do a great job at helping students reach college. But I think the fact that Talent Search, due to less funding, has fewer participants and since we start a little earlier, we have a more intimate program and stay more involved in the lives of our participants longer. Because our groups are a little smaller, we get to know our kids better and they become sort of like, extended family. The path from sixth grade to twelfth is long and those that stay in the program, we get to see grow into fine young men and women and most go on to college. Simply put—Talent Search works.

In conclusion, based on findings from the present study, the Talent program is successful in assisting African American males complete high school, attend college and be retained. However, one program is not the answer to all the challenges faced by African American males today. It is important to remember that African American males are still one of the most underrepresented and underserved populations of college students today. This study should not
be used to indict all pre-college programs. Other factors contribute to the lack of African American males in college as well (i.e., racism, classism and gender identity issues). While programs like Talent Search are getting them to college, it is essential that institutions nation-wide redouble their efforts to make sure these students stay there. One more African American male in college can be directly equated to one less African American male in prison. Let’s all work diligently to keep African American males in college along with other students, where they truly belong. An educated citizen is an informed citizen and is more likely to play a more productive role in society and is less likely to become a menace to society.

Future Research

This study is just the beginning of what should be a huge research endeavor in the field on African American males as it relates to their participation in pre-college programs and retention. There is a need for more empirical data from studies concerning the significance or insignificance of pre-college programs. This study only examined three programs, Upward Bound, Talent Search and G.E.A.R. UP. It is necessary that these programs and other pre-college/early intervention programs be observed and tested to see if they are meeting the mission and goals of the program and its participants. Also, this study only looked at the influence these programs have on the retention rates of African American males. Future studies must be conducted looking at other so-called minority populations as well since these programs aim to assist all minority students (e.g., Asians or Latinos).

Further research should utilize another sample of students other than the ELS:2002 to see if they demonstrate the same levels significance or insignificance as the students in the present study. Studies of this nature would help provide more critical information as to the effectiveness of these pre-college programs and its participants. Additionally, a study of the African American
female ELS:2002 participants is necessary. A study of these students will help provide insight to the experiences of African American females in college and determine if the same outcomes are reached for these students too. Once examined, comparisons, contrasts and similarities between African American females and males may be suggested, adding to the burgeoning amount of literature surrounding African American students in college.

Lastly, a qualitative analysis of Talent Search programs should be conducted. Based on the findings from the present study, Talent Search has an influence on the retention rate for African American males. A qualitative study will allow for a true exploration of issues, help provide any explanation of phenomenon and provide a first person account as to why African American male Talent Search participants feel the program is successful, how it may have impacted them and how it helped them go on to college, stay and reach their goal of becoming a college graduate.
REFERENCES


VITA

Student oriented, student focused and student centered. Those are the three principles that drive the pursuits of Mr. James “DJ” Baker III. If you ask DJ where he is from, he will quickly respond, “Everywhere USA!!” Having moved around so much, DJ has proclaimed himself a true nomad. DJ spent the majority of his childhood in between Georgia, California, New Jersey and Florida. While he was never academically challenged, as a child, DJ’s teachers mistook his hyperactive and overzealous conduct to learn as a defect. He was constantly disciplined, suspended and expelled from schools. Many of the school systems even recommended he be medicated with Ritalin, as they do for most over-active students. However, DJ overcame his challenges and ended up graduating top of his elementary, middle and high school classes. He was told at graduation that because of his behavior he would never make it in life and college was not an option. Believing that, after high school, DJ took a job as a cook in the cafeteria at Fort Valley State University and pretended to be a student, but did not attempt to enroll. Eventually, he was discovered by a gentleman who would become his mentor. He made sure DJ enrolled and the rest as they say, “is history.”

DJ attended Fort Valley State University, a Historically Black College and University in Middle Georgia. There he obtained his dual undergraduate degrees, worked in the Office of Student Life full-time and went on to graduate top of his class. He then attended the University of Nevada Las Vegas and worked as the College and Community Relations Coordinator for the MGM/Mirage Corporation. During the first few months of his stint with MGM/Mirage, DJ was recruited to work for the Beverly Hilton in Beverly Hills, California. While there, he served in every leadership and managerial capacity at the world-renowned hotel. Not finding fulfillment in
the hospitality industry, he decided to go back to school. DJ earned his M.B.A. from Delaware State University in less than 9 months and again graduated top of his class.

Currently, DJ is an instructor at the Louisiana State University and A and M College. Personally, DJ feels he brings a positive attitude, a fresh outlook and diverse perspective to higher education and has a strong foundation in mentoring and peer counseling. He is a trained facilitator mentor, life coach and motivational speaker. He has traveled nationally and internationally to places such as Brazil, Germany and Canada, just to name a few, to facilitate workshops for students and faculty on topics such as: 1) Leadership, Roles and Responsibilities, 2) The New Age Mentor, 3) Finding Your Way to College Success, 4) The Millennial Generation and 5) The Retention and Graduation Crisis. He is the founder of his own non-profit organization, New D.E.F.intion Management Group, LLC. In the midst of all the aforementioned, DJ has found time to work on a doctoral degree. He will receive the degree of Doctor of Philosophy at the May 2012 Commencement ceremony.

According to DJ, his life is just about to begin, so we all should stay tuned. He constantly reminds everyone he knows to, “Learn every chance you get; Live like there is no tomorrow; Laugh until it hurts and Love as JESUS did.” Perhaps, that is the secret ingredient to his successful recipe—who knows?!!