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An Investigation of the Prior Academic Experiences, Family Characteristics, Undergraduate Experiences and Postgraduate Plans of Gifted Black College Students

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LOYOLA UNIVERSITY CHICAGO

AN INVESTIGATION OF THE PRIOR ACADEMIC EXPERIENCES,
FAMILY CHARACTERISTICS, UNDERGRADUATE EXPERIENCES AND
POSTGRADUATE PLANS OF GIFTED BLACK COLLEGE STUDENTS

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

DEPARTMENT OF EDUCATIONAL LEADERSHIP AND POLICY STUDIES

BY

JOYCE MARIA SCOTT

CHICAGO, ILLINOIS

JANUARY 1996

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DEDICATION

TO MY SPIRITUAL MENTOR AND FAITHFUL FRIEND

MOST REV. JOHN R. SHEETS, S.J., D.D.

AND

TO THE CHERISHED MEMORIES OF MY GRANDFATHER

CARL ALLRED

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CHAPTER I
INTRODUCTION

Background

Historically, the research literature in education has clearly discussed issues related to identifying young, academically and creatively talented gifted black students. Most often with the assistance of teachers, parents, school districts and school psychologists, these students are recommended to participate in specialized programs that will enhance their talents and abilities. Despite evidence of their participation in such programs since the mid-1930s, the vast literature on gifted and talented black students essentially ends once the students complete secondary school and enter institutions of higher education.

The literature also notes that many educators, the students' families and their communities view gifted and talented black students as the "cream of the crop" who will succeed in their academic and career pursuits. Consequently, throughout their schooling, the students encounter both externally and internally driven pressures to confirm their giftedness among peers, teachers and significant others (Lindstrom & Van Sant, 1986; Ogbu, 1988). But like students from all racial and socioeconomic backgrounds, gifted blacks believe that securing the

baccalaureate degree will lead to social and economic upward mobility. Despite this common aspiration for upward mobility and social/economic success, research studies suggest other realities about black achievers. For instance, blacks remain underrepresented in many occupations and professions that require advanced math and science education and training (Cooper, 1983; Dix, 1987). The low numbers of blacks enrolling in and completing graduate school also suggest that undergraduate institutions have not sufficiently identified nor encouraged highly capable black students to enroll in graduate schools (Carter & Wilson, 1992, 1993; Otuya, 1994; Willie, Grady, & Hope, 1991).

These considerations might lead one to investigate the academic and personal characteristics of gifted and non-gifted blacks who are pursuing postsecondary and higher education. Additionally, an inquiry into factors such as prior academic and undergraduate experience, family background characteristics and postgraduate plans is especially relevant to a body of literature that pertains to gifted black students.

Statement of the Problem

There are numerous ways education researchers can investigate factors that influence the success of gifted black students beyond college. One way is to examine attributes of the undergraduate experience that influence or prepare them for appropriate postgraduate experiences. For

instance, are gifted undergraduate black students who succeed at optimally balancing their time between studying and the social life that college offers, more or less likely to choose graduate school options than non-gifted students? Another approach would be to investigate family background attributes that may contribute to their decisions regarding alternative postgraduate choices. Does family social climate such as achievement orientation or moral-religious emphases contribute to their post-graduate decisions differently than non-gifted students? Other factors such as exposure to gifted programs, pre-college counseling or opportunities for grade-level acceleration might also influence decisions differently for gifted and non-gifted students. Thus, considerations inherent in family background, the undergraduate experience, and prior opportunities may provide insight for an investigation of gifted black student success after college.

This study makes a contribution to the existing body of literature on gifted students, but is specifically designed to develop knowledge about black college and university students who exhibit gifted characteristics before entering institutions of higher education. Specifically, in a society that values intelligence, higher education, socioeconomic upward mobility, the high ability levels of the gifted should ensure the pursuit of postgraduate plans commensurate with those high abilities. Also of interest

are differences in prior academic and undergraduate experiences, family characteristics and postgraduate plans.

Purpose of the Study

The purpose of this study is to investigate the family characteristics, undergraduate experiences and postgraduate plans of gifted black college and university students. A series of prior academic and undergraduate experience variables known to influence academic success and career aspirations will be tested for two groups. One group will consist of students exhibiting gifted characteristics prior to enrolling in college, and the other will consist of students not exhibiting characteristics of giftedness before college enrollment. Additionally, a set of variables regarding family characteristics and postgraduate plans will also be tested. Specifically, the study will focus on identifying and comparing significant differences between gifted and non-gifted black college students.

Significance of the Study

This study will contribute to the vast literature on gifted blacks which dates from the mid-1930s to the present. Although studies on gifted blacks have focused on issues involving identification and program participation, the lack of follow-up studies which pertain to their success in college and after graduation is a concern.

The study will also discuss how college and university administrators can apply the research results to their

institutions. It will provide a valuable analysis for institutions committed to retaining black students in college honors programs or developing programs that encourage black students to enroll in graduate schools. The analysis will be useful for college counseling professionals who often seek to understand relationships between family background characteristics and academic achievement. Such a study will also provide academic and student affairs administrators in higher education with a knowledge base to structure new programs, or to modify existing programs that will include high achieving black students.

Studies on postgraduate career decision-making have not investigated relationships between career choices, family characteristics and the undergraduate experiences of gifted black college and university students. At a time when statistics show that blacks remain underrepresented in many scientific and technical career fields, institutions of higher education can serve an important role in encouraging these students to enroll in graduate school (Dix, 1987). A study that unveils the relationship of significant background characteristics to graduate school enrollment for gifted black college students will be useful in developing appropriate career counseling programs at the undergraduate level. It is hoped that such a study will also provide college and university decision makers with useful knowledge about the diversity of background characteristics that

encourage or discourage black students to enter career areas where they are underrepresented.

Research Questions

This study will identify and examine the relative importance of selected independent variables for gifted and non-gifted black college and university students. The study will be guided by the following research questions:

1. What are the prior academic experiences of gifted and non-gifted black college students?
2. What are the family characteristics of gifted and non-gifted black college students?
3. What are the undergraduate experiences of gifted and non-gifted black college students?
4. What are the postgraduate plans of gifted and non-gifted black college students?
5. Are there significant differences in prior academic achievements including high school grade point averages, SAT and ACT scores for gifted and non-gifted black college students?
6. Are there significant differences in family characteristics including parent education, employment and family income; living arrangement prior to college enrollment; emphasis on family cohesion, achievement orientation, independence and conflict between gifted and non-gifted black college students?
7. Are there significant differences in undergraduate

experiences including mentoring, satisfaction with the institution, contact and interactions made with faculty and counselors, grade point averages, importance of grades and social relations between gifted and non-gifted black college students?

8. Are there significant differences in postgraduate plans including when decisions were made to enter graduate school, highest degree aspiration, perceived obstacles to graduate school enrollment, motivation to attend graduate school and importance of graduate school between gifted and non-gifted black college students?

Research Hypotheses

1. There will be no statistically significant differences in the prior academic achievements of gifted and non-gifted black college students.

2. There will be no statistically significant differences in family characteristics of gifted and non-gifted black college students.

3. There will be no statistically significant differences in undergraduate experiences of gifted and non-gifted black students.

4. There will be no statistically significant differences in postgraduate plans of gifted and non-gifted black college students.

Overview of the Study

An extensive review of related literature indicates that nothing has been published to date on the subject of the prior education and undergraduate experiences, family characteristics and postgraduate plans of gifted black college students. More recently, one study (Arnold, 1993) has reported on the career choices of minority students selected as high school class valedictorians and salutatorians. The study discusses how the process of higher education and early careers has produced a leveling effect on the aspirations and attainments of high ability students. Specifically, Arnold found that while the goal of college for high achieving minority students is economic security and respect in the community, when they attended traditionally white institutions the colleges failed to provide the tacit knowledge that leads to effective career strategies. She suggests that in contrast to white middle-class family and school structures, blacks in white colleges and universities lack resources that guide them in academic strategies, college and major choice, and management of careers. Another 1993 study reports on the "relationship between educational expectations at the time a student enters a baccalaureate program and his or her actual choice after college graduation" (Weiler, 1993, p. 440). The author of this study did find that compared to white students, minority students with high test scores and good

grades are less likely to either ask for or receive institutional support and information about graduate degree options (Weiler, 1993).

The present study also explores differences on how black gifted and non-gifted students negotiate the undergraduate experience. For instance, are non-gifted students taking the initiative to seek counseling or are they initiating faculty contacts?

While studies pertaining to black college and university students have not focused on prior educational experiences of high achievers, much has been said about the impact of institutional characteristics for these students. Several studies have reported that college success is influenced by campus context and student background. These studies have focused on campus racial composition or have examined the impact of black students attending predominately white institutions (Allen, 1988b; Burrell, 1980; Centra, 1970; Fleming, 1984; Gibbs, 1973, 1974; Smith, 1980; Vaz, 1987; Willie & McCord, 1972). Fleming (1984) concludes that black student intellectual gains are higher on black majority campuses than on white majority campuses. Relevant to the present study, Allen (1992) concludes that characteristics of the individual and characteristics of the institution combine to influence academic performance, extent of social involvement and occupational goals.

This study differs from the aforementioned in that it

focuses on identifying characteristics of a select group of black college students. The black students under study are those exhibiting gifted characteristics before college attendance and thus are referred to as "gifted". Early research related to identifying gifted black children dates back to the mid 1930s. Witty and Jenkins (1935) presented a single case study featuring a Negro girl who scored 200 on the Stanford-Binet intelligence test. Other earlier attempts to identify gifted blacks have examined the extent and nature of sex differences in intelligence among Negro college freshmen as measured by the ACE Psychological Examination (Canady, 1943). In 1943, Jenkins studied Negro children with IQ's of 160 and above and found that "negro ancestry is not a limiting factor in identifying giftedness" (p. 124). More recent studies discuss a myriad of problems associated with the nonidentification of gifted black children in relation to eligibility to participate in special programs (Frasier, 1987, 1991; Gowan, 1969; Richert, 1987; Serwatka, Deering, & Stoddard, 1989; Smith, LeRose, & Clasen, 1991).

Research related to family characteristics of gifted students discuss the associations between family environment and personality adjustment, demographics such as family size and birth order (Olszewski, Kulieke, & Buescher, 1989). In their literature review on families of gifted children, Colangelo and Dettman (1983) indicated that gifted families

tend to implicitly value home environment and family relations. For the most part, studies related to the families of gifted black children have been incorporated into the literature on economically disadvantaged minorities. One study on academically talented low-income minorities found that high achieving students perceived their parents as placing a high value on education and the pursuit of high-status careers (Prom-Jackson, Johnson, & Wallace, 1987). Another study found that no individual or institutional influences outside the "family" were as powerful in the lives of disadvantaged gifted minorities (Vantassel-Baska, 1989).

What is important to understanding influences of the family and the undergraduate experiences of gifted black students is an accurate examination of problems and issues related to postsecondary choices. Although black academically talented students not identified as gifted encounter similar issues and problems, those identified as gifted are expected to differ on family characteristics and undergraduate experiences. Research suggests that their prior educational experiences and particular family characteristics assure success in college and beyond (Epps & Jackson, 1985; Frasier, 1991b; Karnes & D'Illio, 1988; Mathews, 1986; Prom-Jackson, Johnson, & Wallace, 1987; West, 1989).

The research design for the proposed study is

quantitative in nature. It employs a research methodology that allows for investigation of selected variables utilizing three questionnaires. Data from the instruments were statistically analyzed to generate comparisons between gifted and non-gifted students. Subjects for this study consisted of 152 black college and university students chosen from total populations of black juniors and seniors who attend six predominately white institutions of higher education in the Chicago, Illinois area.

The study uses summary descriptive statistics; t-tests and chi-squares as tests of statistical significance to show differences among and between groups. Comparisons were made on selected variables for prior academic experiences, family characteristics, undergraduate experiences and postgraduate plans.

In sum, the study is designed to describe and investigate factors relevant to the prior academic experiences, undergraduate experiences, family characteristics and postgraduate plans of black students exhibiting gifted characteristics before entering college. Chapter II discusses the literature on the topic of gifted students in general, and gifted black students, specifically. The review provides a background to the rationale behind the study's overall purpose. Chapter III provides the methodology to carrying out the study, including selection of respondents, procedures used to

collect the data and a description of how the data is analyzed. The results are presented and discussed in Chapter IV. Chapter V discusses the study's major findings in relation to the hypothesis, research questions and the literature review.

CHAPTER II

REVIEW OF THE LITERATURE

A review of the literature on gifted children reveals that education researchers have historically been interested in: (a) defining giftedness, (b) identification practices and (c) developing potential through educational enrichment programs. The literature further establishes that beyond discussions on definitions, identifying practices and program enrichment, there remains considerable interest in individual differences which cut across cultures, race, gender, socioeconomic status and ability levels (Canady, 1937b; Ford-Harris, Harris, & Schuerger, 1991; Hilliard, 1976; Richert, 1987; Steppe-Jones, Knight, & Harper, 1986). Notwithstanding, to fully comprehend the significance of a study that investigates the experiences of gifted black college and university students, a comprehensive review of related literature on gifted blacks is important. Therefore, this literature review will consist of five sections to understanding the significance of investigating gifted black college students. The nine parts addressed in the review are: (1) definitions of "gifted", (2) historical beliefs about gifted black children, (3) the underrepresentation of gifted black students in gifted and

talented programs, (4) families of gifted children, (5) black students in predominately white institutions of higher education, (6) gifted college students, and (9) postgraduate and career choices of black college students.

Definitions of Gifted

Toward the end of the 19th century and during the first part of the 20th century, social scientists classified school age children as "gifted" if they exhibited exceptional mental abilities. Leading scholars such as Galton (1883), Binet (1905) and Terman (1925) were concerned with establishing that high levels of measurable intelligence existed among children who are truly intellectually gifted. These early scholars also pointed out that classifying a child as "gifted" would ensure appropriate instruction (Hollingworth, 1926). Some among them were staunch advocates of the concept of "individual differences", which emphasizes heredity as a controlling factor in mental abilities. For instance, in Heredity Genius, Galton (1883) believed that the degree to which individuals are innately endowed through "heredity" and the ability to "perform" exceptionally high tasks, defines them as "intelligent" compared to other individuals.

However, in his efforts to obtain accurate assessments of high levels of intelligence and to explain individual variations in abilities, Binet (1905) developed the first intelligence test. Although Binet believed that

intelligence tests would identify gifted children, he also recognized that intelligence involves an individual's ability to take in and process information from the environment. Terman (1925) carried the matter of individual differences a step further by declaring that the top 1% of performers (IQ 145+) on the Stanford-Binet test of intelligence qualified them as gifted. The means by which individuals in the late 19th and early 20th century were categorized as "gifted" was therefore related to, and perhaps dependent upon, the prevalent beliefs in individual differences.

Following the brief period when social scientists were struggling to define individual differences and operationalizing the term "gifted", the educational community organized around employing definitions relevant to schools (Gallagher & Courtright, 1986). Essentially, like the social scientists, educators were interested in assigning gifted children into categories, because this ensured that they would benefit from classroom instruction. However, unlike the earlier social scientists' focus on measurable individual differences, the education community introduced societal definitions on what constitutes giftedness (Gallagher & Courtright, 1986). In some social circles there had been a continuing conflict between definitions adopted by educators and those of social scientists. For example, Gallagher and Courtright (1986)

mentioned that social scientists, on the one hand, believed classifying students as gifted by school standards would necessarily lessen any emphasis on individual differences. On the other hand, they stated that educators believed that society should determine what students should know in terms of content and skills.

Presently, there is no one single definition of "gifted" which satisfies all disciplines, parents, educators, or school psychologists. Whatever the source consulted, variations in the meaning of the concept "gifted" remain: specifically, how should the term be operationalized and what cut-off levels of intelligence correctly identify gifted students? The simplest way to embrace a somewhat workable definition is to consult a standard English dictionary. For instance, the American Heritage Dictionary (1981) defines gifted as being "endowed with natural ability, talent, or other assets: a gifted child. Other more complex sources are textbooks, state associations for the gifted and talented, school districts and psychologists. Such sources offer reasonable definitions for their individual purposes; however, discussions regarding their similarities and differences are equally as important.

The most widely used and accepted educational definition of gifted contains elements of the concept "potential ability to perform" or, "identified by

professionally qualified persons" (Marland, 1972). For example, as early as 1940, Witty suggested that a gifted child is "one whose performance is consistently remarkable in **any potentially valuable area**" (Witty, 1940, p. 404). And as late as 1972, the Marland report officially brought the issue of giftedness to the attention of Congress and the general public. The report stated that:

those identified by **professionally qualified persons** who by virtue of outstanding abilities are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school programs in order to realize their contribution to self and society.

Children capable of high performance include those with demonstrated achievement and/or **potential ability** in any of the following areas, singly or in combination: 1) general intellectual ability, 2) specific academic aptitude, 3) creative or productive thinking, 4) leadership ability and 5) visual and performing arts (Marland, 1972, p. 3).

Concerns about society's role in defining gifted and talented children are also reflected in a DeHaan and Havighurst (1961) definition:

there is an inborn and unequal **potential in every person** for intellectual and other forms of performance, and that the social environment gives stimulus and opportunity for the development of the inborn potential abilities. The actual kind and level of talent displayed by a child is the result of a combination of what he was born with and what the social environment has given him. Gifted children are those individuals from kindergarten through high school age who show unusual promise in some **socially useful area** and whose talents might be stimulated (pp. 17-18).

Barbe and Renzulli (1981) referred to the exceptional level of performance based on a combination of above average

ability, task commitment, and high levels of creativity.

The authors suggest that:

gifted children are those possessing or capable of developing this composite set of traits and applying them to any potential valuable area of human performance. Children who manifest or who are capable of developing an interaction among the three require a wide variety of educational opportunities and services that are not ordinarily provided through regular instructional program (p. 63).

Others have also included in their definitions individual characteristics unrelated to academic performance. Hilliard (1976, p. 43) considered the "behavioral styles found in music, religion and language as vehicles through which intelligence among black children could be discovered." Clark (1979) defines gifted people as those who have high "intelligence" or who show potential for exceptional ability in particular areas. She proposed that intelligence or ability be demonstrated by high performance in one or more of the following: (a) verbal ability and abstract intelligence; (b) specific academic aptitude, such as science or mathematics; (c) art; (d) creative writing; (e) creative drama; (f) music; (g) social leadership; and (h) mechanical ability (p. 333).

Researchers in the cognitive sciences and education fields advocate for definitions that expand the concept of giftedness beyond a single test score (Feldhusen, Baska & Womble, 1981; Frasier, 1987; Passow, 1972; Renzulli, 1978; Richert, Alvino, & McDonnel, 1982; Tannenbaum, 1983; Torrance, 1962). Their interests in expanding gifted

definitions have raised concerns regarding the exclusion of some children from programs based on inherent biases of intelligence tests. For instance, Passow (1972) recommends discarding intelligence tests in favor of more culture-fair tests that include students from disadvantaged backgrounds. He further notes that intelligence tests should search for talent rather than screen out and "bar participation" in programs for the gifted. The cut-off criterion for intelligence tests has traditionally been a score at or above the 98th percentile on an individual intelligence test such as the Wechsler Intelligence Scale for Children (WISC), or the Stanford-Binet with an IQ score of 160 or above (Terman & Simon, 1916).

Since the late nineteenth century, American education has made numerous strides in advancing the academic achievements of gifted children. In the process, teachers, counselors, communities and education policy makers have found it more important to focus attention on advancing individual potential over individual mental differences measured by intelligence test scores. While most recent definitions of "giftedness" favor incorporating the development of individual potential, those that acknowledge cultural and socioeconomic differences underscore the epistemological stance throughout this dissertation.

Historical Beliefs about Gifted Black Children

Before the 1930s, beliefs and attitudes that "negro" children [now referred to as "black" and/or "African American"] could not be found among the gifted were widely accepted (Beckham, 1933; Witty & Jenkins, 1935). In fact, the pervasive and accepted attitudes at the time were to disseminate information that negro children were uneducable and inferior (Witty & Jenkins, 1934). Additionally, the introduction of intelligence tests normed for the white population did not help to dispel such notions (Fitz-Gibbon, 1975; Serwatka, Deering, & Stoddard, 1989). For the most part, social scientists continued to adhere to definitions of "gifted" which supported the notion that superior intelligence could not be found within all populations of children. For instance, Terman (1925) classified individuals as gifted if they placed in the top 1% on an intelligence test. However, the earlier psychologists not only used these measurements of "individual differences" in their practices, they also adopted elements of educational definitions of "gifted." Even Jenkins (1950), who was interested in identification and enrichment opportunities for gifted negro children, claimed that intellectually superior youth would rank in approximately the upper 5% of their local population in psychometric intelligence, or they would demonstrate high levels of academic performance.

Nevertheless, the fact that intelligence tests

identified some school age children and excluded others led a few of the earlier psychologists to doubt the validity of intelligence tests and the norms which they represented (Witty & Jenkins, 1934). Later, critics of intelligence tests essentially maintained the position that a significant proportion of the population has no chance of being designated "gifted" and is consequently denied the accompanied educational benefits (Baldwin, Gear, & Lucito, 1978; Bruch, 1971; Deschamp & Robson, 1984; Gay, 1978; Getzel & Jackson, 1962; Smith, LeRose, & Clasen, 1991; Sullivan, 1973; Vantassel-Baska, 1986). Richert (1987, p. 151) noted that "schools should not identify only the 'gifted,' but should be finding students of all backgrounds and experiences who have the potential to become gifted and design programs to develop that potential." For the most part, the education community agreed that cut-off scores derived from intelligence tests would undoubtedly exclude a population of students belonging to various socioeconomic and culturally different backgrounds (Baldwin, Gear, & Lucito, 1978; Bruch, 1971; Frasier, 1979; Gay, 1978; Richert, 1987; Sato, 1974; Serwatka, Deering, & Stoddard, 1989).

Psychologists Witty and Jenkins (1934) endeavored to dispel the belief that children from culturally different backgrounds could not be located with the Stanford-Binet test of intelligence. In the first ever study designed to

locate gifted negro children with the Stanford-Binet, Witty and Jenkins (1934) invited teachers from the Chicago Public School system to nominate children who met certain appreciable intelligence behaviors. Teachers were asked to nominate children considered as the most intelligent and the best students. The study resulted in the researchers identifying 26 students and a "negro" girl who scored 200 on the Stanford-Binet.

In a later study, Jenkins (1943) located throughout the country 14 cases of negro children who scored in the IQ range of 162 and 200 on the Binet test. He also found that the children were accelerated one or more grade levels and had already received some form of enrichment from within their respective schools. In addition to identifying the students, Jenkins studied their origins and individual characteristics longitudinally. The Witty and Jenkins (1934) investigations into the intelligence of negro children based on intelligence test cut-off scores contributed to future investigations about the intelligence of negro children. Specifically, their confirmations that extremely high IQ's could be located among the negro population gained the attention of other scholars and advocates of enrichment opportunities for gifted negro children.

The Underrepresentation of Black Students in
Gifted and Talented Programs

In a recent publication, Harris and Ford (1991) distinguish between contemporary and traditional views regarding the underrepresentation of black children in programs for the gifted (Baldwin, 1987a, 1987b; McKenzie, 1986; Vantassel-Baska, Patton, & Prillaman, 1989). They describe "traditionalists" in terms of a cultural-deficit perception, which maintains that giftedness does not exist in culturally different (non-white) populations. Contemporary educators, on the other hand, oppose identification practices which are based solely on IQ scores; they argue for pluralistic definitions and theories of giftedness (Richert, 1985). Renzulli appreciates such a pluralistic perspective. He notes that "giftedness consists of an interaction among above average general abilities, high levels of task commitment and high levels of creativity" (Renzulli, 1986, p. 63). A pluralistic perspective as such, acknowledges diversity in ability, and what necessarily follows, is cultural pluralism within a multicultural society.

Since the early 1930s, measures other than intelligence tests have aided in identifying culturally different gifted children for gifted programs. Education researchers now maintain that if children from various socioeconomic, cultural and educational backgrounds are to be located,

identifying methods should be based on a more broadened and flexible conception of giftedness (Baldwin, Gear, & Lucito, 1978; Frasier, 1987; Gay, 1978; Hilliard, 1976, 1979; McKenzie, 1986; Stronge, Lynch, & Smith, 1987).

Additionally, some critics claim that intelligence tests are culturally biased instruments that were never designed to include populations of students from diverse educational and socioeconomic backgrounds (Passow, 1972).

Although Witty and Jenkins (1935) found that the majority of intellectually superior black children identified in their study came from high socioeconomic status homes, later researchers report on the wide socioeconomic diversity among gifted black children. Many education researchers have attempted to educate school personnel and the public about cultural and socioeconomic diversity among populations of gifted students. For instance, Vantassel-Baska & Willis (1987) reported on issues related to low-income and SAT scores of gifted minority students. Essentially, they concluded that a low-income status negatively affects SAT scores. Frasier (1979) and Harris & Ford (1991) have argued that any reliance on IQ tests limits giftedness and fails to distinguish among different kinds of intellectual and economically dependent functioning.

Teacher Nominations of Gifted Black Students

While current identifying practices such as rating scales, checklists, standard measuring instruments, cultural specific models, quota systems, instructional models and teacher nominations do consider diversity within the black population, they have their problems (Frasier, 1987; Renzulli, 1986). For instance, Frasier notes that not all of these "best practices" will locate potentially gifted black children. Educators are now relying less on intelligence tests and more on methods known to increase the likelihood of identifying students from within their schools and communities. For example, in her efforts to develop a practical, fair method for identifying the top 2% in ability among black eighth graders in a California school district, Fitz-Gibbon (1975) concluded that "the effectiveness of a procedure is the percentage of gifted students located by the procedure" (p. 55).

Identification practices cited most in the literature are teacher nominations, and achievement and intelligence tests (McKenzie, 1986). However, other identifying practices have been suggested. For instance, Davis (1978) suggested that the community from which the child originates can also serve as an identifier. Specifically, he maintains that individuals vested in the community should recognize as "gifted", characteristics valued most by the community.

Richert (1987) supports parent and peer nominations

over teachers who are most often qualified and prepared to recommend students for gifted and talented programs. She points out that while teachers are only able to identify behaviors which occur in school, parents and peers are capable of observing out-of-school behaviors and achievements. For example, parents and peers tend to be more knowledgeable about the amount of time the child spends reading outside of the classroom. Overall, nominations from peers, parents and teachers have been better predictors of selecting children for gifted programs (Blackshear, 1979).

While teacher nominations have been the most often used method of identifying gifted blacks, they have not been without their problems (McKenzie, 1986). Classroom teachers do spend a considerable amount of quality time with students and are certainly capable of distinguishing intellectually superior behaviors among them. However, it was shown in the much earlier study of Witty and Jenkins (1935), that teachers mistaken the "most intelligent and best student" as one who scored an IQ of 100 and not the classmate who scored 200 on the Stanford-Binet. Although teacher nominations suggest greater accuracy in identifying gifted blacks, they are most useful when combined with additional measures such as standardized test scores.

Lindstrom and Van Sant (1986) point out that even in cases where teacher expectation is low, the ignorance of general characteristics of giftedness may mean that the

bright child will never access opportunities that nurture potentiality. Gear (1976, 1978) maintains that teacher nominations without formal training are questionable, especially if they occur without knowing what specific qualities to look for in the gifted child. Gay (1978) notes that the common characteristics shared by black gifted children may not be as apparent to teachers. For instance, she points out that at any early age many black children have experienced feelings of alienation in their schools and as a result of having been in inferior schools, many do not expect to achieve. One earlier study suggested that as a group, gifted black children have been known to achieve better in verbal abilities than in math (Witty & Jenkins, 1934). In their study on educational achievements, Witty and Jenkins (1935) noted another difference that might affect teacher nominations: black children achieve best in subjects where teachers expect high "verbal ability" and where the children are least dependent on classroom instruction and experience. Also, influences such as low teacher expectations are known to affect the extent to which children will achieve (Patriarca & Kragt, 1986).

The characteristics of gifted blacks have been known to differ greatly from those of non-gifted blacks. However, researchers Gallagher and Witty (1951) describe four characteristics that distinguish all gifted students from other bright students: (a) the ability to reason by

analogy, (b) extraordinary abilities to meaningfully manipulate a symbol system, (c) ability to think logically and (d) the ability to problem solve (p. 23). Frasier (1991b) notes that the most distinguishing characteristic of all gifted students is that they have an extraordinary ability to ask questions. She and others have referred to the chart developed by Szabos (1989) which describes such distinguishing characteristics in greater depth (see Figure 1).

Improvements in Locating Gifted Black Students

Education researchers now agree that the preferred practice in locating gifted disadvantaged and culturally diverse students is the employment of multiple gifted criteria. Recommendations have included the soliciting of nominations from individuals other than teachers, constructing specifically designed checklists and rating scales, developing culture specific identification systems, creating quota systems and designing evaluative methods that eliminate language deficits (Frasier, 1991).

One example of the employment of multiple criteria to locate culturally diverse gifted students is the "Frasier Talent Assessment Profile (F-TAP) model. This model uses the concept of the student "profile" which displays and interprets data from multiple sources acquired from test and non-test sources. Frasier notes that the profile is designed to reduce excessive data collection and improve the

Figure 1. Distinguishing Characteristics of Gifted Children
(Szabos, 1989)

BRIGHT CHILD

Knows the answers
Is interested
Is attentive

Has good ideas
Works hard
Answers the questions
Top group
Listens with interest

Learns with ease
6-8 repetitions for mastery
Understands ideas
Enjoys peers
Grasps the meaning
Completes assignments
Is receptive
Copies accurately

Enjoys school
Absorbs information
Technician
Good memorizer
Enjoys straightforward
sequential presentation
Is alert
Is pleased with own learning

GIFTED LEARNER

Asks the questions
Is highly curious
Is mentally and physically
Involved

Has wild, silly ideas
Plays around, yet tests
well
Discusses in detail,
elaborates
Beyond the group

Shows strong feelings and
opinions
Already knows
1-2 repetitions for mastery
Constructs abstractions
Prefers adults
Draws inferences
Initiates projects
Is intense
Creates a new design

Enjoys learning
Manipulates information
Inventor
Good guesser
Thrives on complexity
Is keenly observant
Is highly self-critical

collection of data that is based on dynamic rather than cursory characteristics of giftedness. For example, in the initial screening stage, nominations can be made by any individual knowledgeable about a child's behavior.

Secondly, the profile graphically displays the multiple

criteria and is later interpreted by an assessment team of decision makers.

Another recent response to the problem of locating economically disadvantaged and culturally diverse gifted children has been the Javits Grant Projects introduced in 1988 and administered by the Office of Educational Research and Improvement of the U.S. Department of Education (O'Connell Ross, 1994). Javits' grants offer institutions of higher education and other agencies incentives to test new ideas and procedures associated with identifying underrepresented gifted children through demonstration projects, teacher inservice and other innovative methods. Gallagher (1994) reports that Javits programs have addressed long held concerns the education community has had about locating culturally diverse students. Although, Gallagher also points out that even Javits programs have not solved the overall problem of cultural diversity within many gifted and talented programs.

Educational Environments of Gifted Black Students

There is generally a high correlation between socioeconomic status and school quality; especially if the school is located within the family's community, or if it is segregated (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, & York, 1966). Jenkins found that one of the first noted characteristics of gifted black children was that they typically come from segregated schools (Jenkins,

1943). However, when the 1954 Supreme Court decision in Brown v. Board of Education called for public school integration, avaricious efforts to locate gifted children from within white "segregated only" schools could no longer remain the status quo. The norm was that black "segregated only" schools were often substandard in terms of facilities, planning and finances (Baldwin, 1987b; Fitz-Gibbon, 1975; Jenkins, 1936) and consequently, were not likely to participate in gifted recruitment. Also, some studies report that student learning is negatively affected in segregated black schools (Ascik, 1984; Hawley & Rosenholtz, 1986). Identification procedures must take into account individual differences and especially environmental differences such as school quality.

In cases where school districts, colleges and universities rely on cut-off scores from standardized "achievement tests" to help identify academically-able students, the educationally and socioeconomically disadvantaged gifted child may not perform as well. As Baldwin (1987a, p. 182) notes, "when cut-off scores from standardized achievement tests are used as the only criteria for identifying gifted students, the black child may be excluded based on his or her ranking." However, in a study to locate college-bound gifted minority students, Vantassel-Baska and Willis (1987) found that disadvantaged minority students did perform as well when cut-off scores from the

SAT exam were used. Consequently, because achievement tests are designed to measure content specific areas of learning, how well black children perform is a function of factors such as school quality, ability, enrichment opportunities and instruction.

Still, when lower socioeconomic status black students attend integrated schools with educational enrichment programs, they often go unidentified as students who possess high ability. In fact, for many years the trend was to recommend students for gifted programs based on socioeconomic class, parents education, social background and values (Frasier, 1987, 1991a, 1991b). However, to resolve such notions, Frasier argues that education researchers would profit more by focusing on characteristics of the home environment. That is, the traditional focus on educational level and occupation of parents do not provide a complete picture for black students. She notes beliefs that every impoverished home is necessarily illiterate is a mistaken assumption.

The need to identify, locate and provide for gifted black students is apparent and crucial in a technologically advanced society. However, as Jenkins (1950) noted more than forty years ago, when schools are conditioned to addressing the needs of low-average performance, remedies to the problem of identifying gifted black students will continue to go unaddressed. He identifies the following

needs as essential and relevant to the population of gifted negro children: (a) the need for identifying youth of superior ability who test relatively low but who achieve high, (b) the need to adapt the curriculum to meet the needs of superior youth . . . enrichment programs, (c) the need for adequate educational and vocational guidance of superior youth . . . appropriate guidance, (d) the need for financial aid for students of superior ability . . . many students of high potential are not able to attend college, and (e) the need for research concerning superior youth (p. 324). In regard to the latter, Jenkins suggested that future research consider investigating what vocations gifted blacks enter and what factors contribute to their occupational success or failures? A major focus of the present study concerns the investigation of factors relevant to the postgraduate plans and family characteristics of gifted black college and university students.

Families of Gifted Children

Gifted children are diverse in intellectual abilities, socioeconomic status, culture, race, gender, family backgrounds and many other characteristics. For example, they are classified as academically gifted, creatively gifted or extremely gifted; low or high socioeconomic status gifted; black or white gifted and gifted males or females. Like many of these labelling classifications, characteristics of the family background impact the

development of talent and ability. Some gifted education research scholars note that there is a range of similarities and themes that cut across families of all gifted children (Olszewski, Kulieke, & Buescher, 1987). They have identified attributes of the gifted child's family environment which are not seen among families of non-gifted children in the same intensity. The extent to which many of these identifiable attributes influence the gifted child's current or later intellectual or academic endeavors is clearly substantiated in the literature (Albert, 1978; Barbe & Renzulli, 1981; Colangelo & Dettmann, 1983; Cornell & Grossberg, 1987; Hackney, 1982; Prom-Jackson, Johnson, & Wallace, 1987; Mathews, 1986; Olszewski, Kulieke & Buescher, 1987). However, there are other environmental influences that may not be unique to only families of gifted children.

When the family background characteristics of gifted children are investigated, educational researchers should consider at least two questions. One, how important is it to know about gifted children's family structure and composition, values, attitudes and parenting styles; and two, what are the differences in family background characteristics for gifted and non-gifted students? The most significant finding in the research literature on family background and giftedness, suggests that family structure and interactions have a critical role in the future talent development of the gifted child (Vantassel-

Baska, 1989). Additionally, compared with their non-gifted counterparts, gifted students exhibit behaviors such as independence and they are intrinsically motivated (Olszewski-Kubilius, Kulieke, & Krasney, 1988).

For instance, Olszewski-Kubilius, Kulieke and Buescher (1987) note that evidence suggests relationships between giftedness and variables such as the number of children in the family, sex of the children and order of birth. Citing the research of Pfouts (1980), they report that a high percentage of gifted and prominent individuals are first born because first born children interact more with adults than later-born children. Parents may treat children differently based on their order of birth (Pfouts, 1980). Another study found a relationship between giftedness and family size, noting that there are usually no more than two children in the family (Groth's study as cited in Olszewski-Kubilius, Kulieke and Buescher, 1987).

Knowledge about relationships between giftedness and family stability can also provide implications for future research. The earlier studies of Terman (1925) and Hollingworth (1942) reported that parents of gifted children infrequently divorce and that they tend to be older when their children are born. The literature review of Olszewski, Kulieke and Buescher (1987) pointed out that the incidence of absent fathers in the home among gifted individuals was an unexpected finding. In Vantassel-Baska's

(1983) study of top scorers on the SAT exam, she reported that many of the mothers of gifted children were homemakers who focused their time and energy on their children. While there does appear to be similarities and differences in family dynamics within groups of gifted children, investigations into the similarities and differences with other student populations are important.

Several studies investigating the home environment of gifted children discuss similarities in parental styles and the family's expectations of intellectual achievements. Studies have shown that the homes of gifted children are child centered, supportive of activities, and achievements (Bloom, 1985; Johnson & Roth, 1985). Parents engage in modeling attitudes that encourage success and they monitor what the child does with his or her time (Olszewski, Kulieke, & Buescher, 1987). Colangelo and Dettman (1983) note that parents of gifted children tend to allow the gifted child more freedom to choose friends and make decisions. However, the boundaries and rules parents establish in the home are for the most part positive and encouraging (Johnson, 1985). Nichols (1964) also found relationships between authoritarian mothers and the gifted child's grades in school.

Studies that distinguish between creatively gifted and academically gifted students note other differences in parental styles (Colangelo & Dettman, 1983; Weisberg &

Springer, 1961). While both value achievements, creatively gifted children come from homes that foster independence and they are less child centered and have tense family relations. On the other hand, the homes of academically gifted students tend to be more cohesive and child centered (Olszewski, Kulieke & Buescher, 1987).

The Black Family and Achievement

The majority of the literature on black family influences and academic achievement discuss problems and issues related to underachievement, low achievement and disadvantage (Goldscheider & Goldscheider, 1991; Gray-Ray & Ray, 1990). Existing knowledge about black family structure and composition, values, attitudes and parental styles also stems from a large body of literature that is again, engulfed in describing and analyzing problems and issues related to black families. Efforts to address the family characteristics of blacks must first acknowledge the existing socioeconomic diversities (Frasier, 1987, 1991a, 1991b).

In her discussions regarding dispelling commonly held attitudes that all black families are alike, Frasier (1987, p. 169) conjectured that black families are as socioeconomically heterogeneous as all others. She proposes a four-tier hierarchical model of classifying black families. The tiers range from the "very low socioeconomic environment to high socioeconomic environment families" (p. 169). The

lowest tier represents (1) low socioeconomic environment where (a) there is limited educational tradition in the home; (b) there is generally a disorganized, unsupportive home environment regarding intellectual pursuits; and (c) there are limited aspirations and low self-concept. Above the lowest tier is the (2) low socioeconomic but organized environment where (a) parents have limited education; (b) there are moderate or low aspirations; (c) the children are well cared for; and (d) self-confidence is apparent. In the tier above which represents (3) middle socioeconomic environment there is (a) a supportive intellectual environment in the home; (b) many experiences are provided; (c) there is self-confidence; and (d) there are high aspirations. At the top of the tier are (4) high socioeconomic environment families represented by (a) well educated parents, (b) numerous experiences, (c) self confidence and (d) high aspirations. For the uninformed, Frasier's proposed categories certainly offer alternative ways of viewing black families. Although she acknowledges that the categories are not necessarily discrete units, she does not discuss discrepancies such as the overall economic instability of blacks in the American society. One should expect that there would be much fluctuation between the tiers.

For instance, in regards to parent education Glick (1988) reported that between the years of 1980 and 1985, the

proportion of black children under 18 whose parents had finished at least some college, the subsequent education of the children increased at a much higher rate than previously reported years. One should expect that increases in parental education are related to changes in upward mobility for the family. Glick further notes that the rate of improvement in the education of black parents has been much higher than that of other parents. Scanzoni (1982) reported that with each increasing generation of black families in urban settings, there is an increase in education, job status and higher incomes.

Some researchers have found that the structure and composition of the black family is related to the educational achievement of the children. Rainwater (1970) notes that black children from female-headed households do not attain the same educational and occupational levels as do black children from households in which both parents are present. Scanzoni (1982, p. 117) also notes that the fact that one is a member of the black culture influences educational achievement. For instance, black children hear messages such as "get as much education as you can **because** you are black." Regardless of socioeconomic status, black parents send messages to their children that they should want to "get ahead in life." However, black children from families that remain at the bottom socioeconomic tier (Frasier, 1987) may consciously hear these parental

messages, but without reinforcements from their schools and communities the messages are no more than just family values. Essentially, many black children learn early that there are inconsistencies between the message that education leads to social upward mobility, and consequently, develop negative attitudes about school (Ogbu, 1978).

The highly criticized Coleman et al. (1966) study found that when examining student achievement over time, family background and parental influences may function as primary forces (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld & York, 1966). The renowned education researcher Bloom (1980, 1985) also acknowledged the importance of parental interests and strong commitment to the development of talents and abilities among gifted children.

Families of High Achieving and Gifted Black Students

An investigation into the family structure and composition, values, attitudes and parental styles of high achieving and gifted black students looks very much like Frasier's (1987) four-tier model on black family types. In Jenkins (1943) earlier study, exceptionally gifted negro children came from high socioeconomic status homes. Most of their fathers were employed in careers such as college teaching, law, medicine, pharmacy, executive social work positions, journalism and engineering. Their mothers were primarily employed or retired school teachers. The educational levels of the parents ranged from second year

high school to graduate or professional degrees. Jenkins (1950) later found that exceptionally gifted negro children are more likely to be of low socioeconomic status.

White (1982) suggests that socioeconomic status may be an indirect measure of home atmosphere and that student achievement differences may be influenced more by, for instance, a family's reading practices than by occupation, income, or education of the parents. Frasier (1991a) maintains that if one is to move away from a focus on the education and occupation of parents, as many researchers are now doing, questions should be raised about the family environment. She maintains that questions such as the following should be considered:

1. What kind of language modeling occurs within the family?
2. What kind of academic guidance do parents give their children, regardless of their circumstances?
3. In what kind of activities do families engage?
4. What is the intellectuality of the home; the work habits of the family?

Fifty-five years after the Witty and Jenkins (1934) study, Vantassel-Baska (1989) examined relationships between children from low socioeconomic status homes and their high achievements. She found that the parental styles of these families were similar to those of children from higher socioeconomic families. For example, the parents had

high aspirations and standards for their children's achievement; and family work habits, routines and priorities were also evident. Vantassel-Baska also found that no individual or institutional influence outside the family emerged as powerful in the lives of gifted minority students, even when the parents were not well educated or financially comfortable.

How the family is supportive of the high achieving and gifted black student was also apparent in Clark's (1983) assessment. He found that the families provided a home that was strongly supportive of achievement. Family support was exhibited in the form of firm discipline, a willingness of parents to explain decisions and involve the children in the decision making process. Compared to the parents of low achieving students, parents of gifted black students are assertive in their efforts to keep informed about their children's progress in school (Clark, 1983). Rhodes (1992, p. 109) reiterates these findings,

characteristics observed in the homes of high achieving black students are: positive parental attitudes toward school, assistance with school work, firm and consistent guidance, as well as encouragement, interest, and affection toward the child.

Marion (1981) notes that black families of gifted children advocate strong kinship bonds, strong work orientation, adaptability of family roles, high achievement orientation and strong religious orientation. On the other hand, McIntosh and Greenlaw (1986) point out that parents of

gifted students from lower socioeconomic status homes communicate to their children that an education is not essential to "making it" in the world, and that getting and keeping a "job" should be the goal, not choosing and being satisfied with a career. Essentially, they note that the aspirations to achieve by capitalizing on one's intelligence and creativity are rarely fostered in the lower socioeconomic homes of gifted students (p. 105).

However, when Prom-Jackson, Johnson and Wallace (1987) studied the responses given by successful lower socioeconomic status black graduates of the A Better Chance Program (ABC is a boarding high school for academically talented lower socioeconomic status students), they found that the students perceived their parents as placing a high value on education and the pursuit of high status careers. The authors contend that parents of black students from low-income backgrounds must have had high aspirations and high expectations of their children.

Marion (1981) noted that when black children are identified as gifted and recommended for programs for the gifted and talented, parents believe that they are at a disadvantage when viewed within the context of traditional gifted families. For example, he contends that black children are at a disadvantage when they are not bound by the usual standards that govern gifted individuals such as being the only child or the older of two children in a

family. Although Marion uses order of birth as an example to state his point, there is no evidence to support the claim that black parents view aspects of the family structure as a disadvantage to their gifted child.

Another possible consideration related to culturally different students not being identified as gifted involves attitudes and beliefs held about achieving by parents, peers and the community. Ogbu (1994) explains that within the minority community there is generally less community and family pressure to achieve. He argues that secondary cultural differences of minority communities, such as unconsciously interpreting school learning as detrimental to social identity or a sense of self worth, impedes academic performance of many minority children. On the other hand, Ogbu claims, minority children who have performed at gifted levels are those who have embraced coping mechanisms to help them manage cultural barriers imposed upon them by mainstream American society, and community barriers inherent in their castelike status.

Black Students in Predominately White Institutions of Higher Education

The first part of this section of the literature review discusses the literature that pertains to black student enrollment in predominately white institutions of higher education. The second section will address the literature on the participation of gifted college students in college

honors programs.

Enrollment Trends

Before traditionally white colleges and universities opened their doors to large numbers of black students, historically black colleges educated black college students (Fleming, 1984). Many of the earliest black colleges, for example, Cheney State College, established in 1830, Lincoln University (1856) and Wilberforce University (1856) were founded by Christian missionaries for the exclusive purpose of educating black students as teachers and ministers.

When the federal Morrill Act of 1890 was passed, the U.S. government mandated states either to provide separate colleges for blacks or admit them to the existing ones (Rudolph, 1962). However, only a few traditionally white colleges and universities admitted black students; and these were primarily private institutions located in the eastern and mid-Atlantic states. Almost 65 years later, the U.S. Supreme Court (1954) ruled in the case of Brown v. Board of Education of Topeka, Kansas, that racial segregation in public education was illegal. Up until the Brown decision, over 90% of all black college students had been educated at historically black colleges and universities (Fleming, 1984).

Since the 1960s, more than a million black students have enrolled in and graduated from predominately white colleges and universities (Carter & Wilson, 1993; Hughes,

1987; Sedlacek, Brooks, & Mindus, 1968; Trent & Braddock, 1988). The American Council on Education (1992), which releases annual statistics on minority trends in higher education, noted that throughout the 1960s and 1970s, enrollments of black students increased faster at predominately white institutions than at historically black colleges and universities (Carter & Wilson, 1992). The 1992 report further states that black enrollment at predominately white institutions increased by 24.6% compared to an increase of 16.6% at historically black institutions. However, compared to white majority students blacks remain underrepresented at all colleges and universities. In 1992, 34% of 18-24 year old black high school graduates were enrolled in college compared to 42% of all high school graduates. The college participation rate of black females was 61% and for males 39%. Black students represented only 11% of all 18-24 year olds who had completed high school (Chronicle of Higher Education Almanac, 1993).

Several educational researchers have attempted to explain why black students continue to remain underrepresented in higher education (Otuya, 1994). Some explanations have addressed issues related to the decline in high school completion for blacks, yet few discuss factors such as their postsecondary choices. For example, similar to all high school graduates, black students may decide to defer their college education, enter the workforce or never

enroll. Despite these facts, compared to white students the attainment of the four-year baccalaureate degree for blacks remains low. In 1991, blacks earned only 6% of all bachelors degrees awarded (Carter & Wilson, 1992).

Campus Environment

The choice to attend either a predominately white or the historically black institution of higher education is primarily left to the individual student's preference (Oliver & Etcheverry, 1987). However, most recent studies comparing predominately white and historically black colleges and universities conclude that the campus environment at black colleges produce significant positive effects for black students. Essentially, these studies maintain that the successes of black students at historically black institutions are attributed to positive undergraduate experiences, such as having faculty mentors and role models (Fleming, 1984; Thompson, 1978; Vaz, 1987). Other studies have examined persistence and attrition trends of black students enrolled in either institution (Astin, 1975; Bennett & Okinaka, 1983; Cross & Astin, 1981; DiCesare, Sedlacek & Brooks, 1972; Stewart, 1988; Suen, 1983). These studies found that black students entering historically black institutions of higher education persist to the bachelors degree at higher rates than blacks enrolled in predominately white colleges and universities. In a longitudinal study of college dropouts Astin (1975) explored

the relationship between the degree of student involvement and institutional "fit." He found that black students are more likely to persist at black colleges than at white colleges because it is easier to become involved when one is able "to identify with the college environment" (p. 303). Bennett and Okinaka (1983) suggest that quite often, tensed feelings associated with college satisfaction predict black student attrition. For instance, the authors note that unlike black students attending historically black colleges, those enrolled in predominantly white institutions must consider in their decision to leave the institution, the degree of satisfaction with interracial relations.

The most often reported distinction between historically black and predominately white colleges and universities is the lack of financial resourcefulness and the threatened survival of the black institution (Fleming, 1984; Gillespie, 1982; Whiting, 1988; Willie & Edmonds, 1978). Yet, for the last 30 years, numerous education researchers have stressed the importance of studying campus environment factors such as differences in student experiences, satisfaction and outcomes (Allen, 1982, 1986, 1987, 1988a, 1988b, 1992; Astin, 1977a, 1984; Fleming, 1978, 1982, 1983, 1984, 1988; Nettles, Thoeny, & Gosman, 1986; Sedlacek, Brooks, & Mindus, 1968; Willie & Mccord, 1972). For the most part, these studies have been empirical in nature and data collected from the student's perspective.

For example, in a recent study, Allen (1992) concluded, as others before him, that the perceptions and experiences black students have about the overall college environment will determine if the total college experience will be positive or negative. All of the most recent inquiries report that black students find predominantly white campuses alienating and that student performance is negatively affected (Allen, 1985, 1986; Allen, Epps, & Haniff, 1991; Burrell, 1980; Fleming, 1984; Hughes, 1987; Oliver, Rodriguez, & Mickelson, 1985; Smith & Allen, 1984).

Since black and white students differ significantly on variables such as culture, socioeconomic status and educational opportunities, Hughes (1987) found that black students require campus environments that are socially oriented and where opportunities exist for growth. According to Hughes, because predominately white campuses are primarily intellectual, independent, achievement and competition oriented, they are least likely to produce the best social environments for black students. On the other hand, he maintains that black students who possess characteristics such as being self-starters or having strong defenses to combat stereotypes, fears, alienation and loneliness increase the likelihood of success at predominantly white institutions. A number of other studies have discussed how the campus environment at predominately white institutions contribute towards lower persistence

rates, lower academic achievement, lower rates of entering postgraduate study and poor psychological adjustments for black students (Allen, Epps, & Haniff, 1991; Astin, 1982; Fleming, 1984; Hall, Mayes, & Allen, 1989; Thomas, 1981).

Fleming contends (1984) that predominantly white institutions have not fully addressed issues related to black students' feelings of social isolation, their perceptions of classroom biases, and the hostility experienced in interpersonal relations. In a study comparing black students' experiences at predominantly white and historically black colleges, Fleming also found significant differences in the personal development of black male and female students. Specifically, the development of black men suffers the most on predominantly white campuses and black women learn to practice assertive behaviors such as survival tactics indicative of the black woman's "matriarchal strengths." Fleming maintains that historically black college environments foster academic achievement and passive dependent response patterns for black women, while predominantly white college environments foster a sense of confidence for them. She further claims that the most salient problems for black women on predominantly white campuses are social isolation, lack of opportunity for heterosexual relationships and a nonsupportive institution (Fleming, 1983). In a 1982 study, Allen also found differences in the experiences of black men

and women on predominantly white college campuses: black women experience lower achievement than black men (Allen, 1982).

Achievement

In one of the first studies to address the academic achievements of black students on predominantly white college campuses, Clark and Plotkin (1964) found that academic success was related more to student motivation and goals, and less on prior academic experience and entrance exams. In a later study, Nettles (1986) also reported that college entrance exams had less of an impact on academic achievement than interfering factors such as family problems. In terms of achievement aspirations, Fleming (1984) concluded that the intellectual gains of blacks are highest when they attended historically or majority black institutions. In his study of black freshmen students on predominantly white college campuses, Allen (1982) also reported that high achieving high school students experienced decreases in grade point averages at predominately white colleges and universities. In terms of gender differences, Smith and Allen (1984) found that black men with high grade point averages had high aspirations compared to black women.

Academic and Social Support

Black students enrolled in predominantly white colleges and universities contend with discrimination, low

expectations, few role models and often hostile interpersonal relations with faculty and students (Astin, 1982; Beckham, 1988; Fleming, 1984). Graham (1985) suggested that black students from interracial educational backgrounds prior to enrolling in the predominantly white institution adjust better and access faculty with greater ease. However, in his study of black students at these institutions, Nettles (1986) found that neither the home neighborhood nor high school racial composition were significantly related to overall college performance. He contends that when the campus is primarily nondiscriminatory in its practices, significant positive affects are seen in student performance.

Many student retention studies stress the importance of interpersonal relations with faculty (Astin, 1977b, 1982, 1984; Beckham, 1988; Fleming, 1984; Gibbs, 1973; 1974; Kuh, Schuh & Whitt, 1991; Pascarella & Terenzini, 1991; Tinto, 1985; Ugbah & Williams, 1989; Vaz, 1987). Gibbs (1973) suggested that predominately white colleges and universities should provide cultural and social opportunities for faculty and staff to interact informally with black students. Vaz (1987) suggested that black students form mentoring relationships with faculty because mentoring offers individual attention and helps students to realize their potential. Additionally, Ugbah and Williams (1989) recommended that black students not only seek out black

mentors, but consider mentoring relationships with faculty outside of their own ethnic group. Fleming (1984) found that black students at predominantly white institutions interact less with faculty. However, black students who initiate contacts with faculty when help is needed are more likely to have positive college experiences (Allen, 1992).

Gifted College Students

In a society that values intelligence, higher education and socioeconomic upward mobility, one would expect high positive correlations between college enrollment and giftedness. Are gifted children more likely to enroll in and graduate from college than non-gifted students? Secondly, are gifted students more or less likely than non-gifted students to participate in college honors programs? Thirdly, in what proportions are gifted black students participating in college honors programs?

The literature does not discuss the rate of college attendance for gifted students. However, some studies discuss student outcomes and college choice for gifted college students. For instance, Laycock (1984) discusses relationships between student outcomes and college choice. Douglas, Powers and Choroszy (1983) investigated the reasons gifted students state as being important to them in selecting their institutions. In order of importance, these authors note the following as important to gifted students: (a) quality of course instruction, (b) training in career

interests, (c) professional competence of professors, (d) overall training, (e) intellectual stimulation provided by training and (f) opportunity for professor-student discussion in courses (Douglas, Powers, & Choroszy, 1983, p. 541).

The literature on college honors programs suggests that gifted students are characteristically different than non-gifted students (Tomlinson-Keasey & Smith-Winberry, 1983). For example, Astin (1977b, 1984) found that participants in college honors programs are more likely than non participants to persist in college and later aspire to graduate and professional schools. Essentially, there is a positive relationship between participation in honors programs and student's overall academic achievement (Astin, 1977b, 1984; Pflaum, Pascarella, & Duby, 1985).

Studies have consistently reported that college honors program participants have strong needs for achievement (Cowell & Entwistle, 1971; Hickson & Driskill, 1970; Palmer & Wohl, 1972). In a study comparing honors students' need for achievement to regular students, Mathiasen (1985) found honors students to be significantly higher in need for achievement than regular students. He maintains that honors students seem to be more academically motivated, grade oriented, demanding, motivated to compete and to seek approval than most college students. Mathiasen (1985) also found college honors program participants to be strivers of

success, intense problem solvers, nonconformists, independent and confident decision makers. Lastly, their rationale for wanting to do well in college is related to a strong desire for acceptance.

In a case study analysis, Laycock (1984) found similar characteristics among six college honors students. For instance, when entering the college environment gifted students experience sudden increased levels of competition unlike their pre-college years. The imposition of superiority by their teachers and parents also precipitates greater difficulties in coping with college competition. Laycock also found that the prior academic performances such as SAT scores and class ranks influence gifted college students' success less so than family expectations, supportiveness and sense of direction.

College and university administrators who include identification criteria used at pre-college levels as criteria for establishing college honors programs may not be as successful as school personnel. In fact, Laycock (1984) suggested that difficulties with placing students lie with the fact that most college students are of high ability and have similar pre-college experiences.

The problems gifted college students experience during the undergraduate years may be related to personality adjustments. In a much earlier study, Terman (1925) suggested that intellectual superiority was accompanied by

superiority in social and personal adjustment. However, Mason, Adams and Blood (1966) contradicted Terman's findings when they found that gifted college students scored lower than non-gifted students on the personality scales of the California Personality Inventory (CPI). They also suggested that personality adjustment for gifted students lessened when they were enrolled in honors programs. Other studies have reported adjustment problems for gifted college students including fear of failure, underachievement, the drive toward perfection, increased level of competition and making appropriate career plans (Laycock, 1984; Whitmore, 1980).

Olszewski and Scott (1992) investigated the college and career counseling needs of economically disadvantaged minority gifted college-bound students. They found that compared to nondisadvantaged students, economically disadvantaged students perceive college life as frightening and lonely. Similarly, the authors noted that economically disadvantaged students are less likely to know what careers academic majors lead to and are less knowledgeable about implementing career choices than nondisadvantaged students.

Gifted Black College Students

Many gifted and high achieving black students have succeeded and graduated from predominately white and historically black colleges and universities (Black Issues in Higher Education, 1991; Carter & Wilson, 1993; Joesting &

Joesting, 1970). Yet, the interest in obtaining follow-up data on these students has not been a great concern for the educational research community. Specifically, research interest in the gifted and talented continues to remain at the k-12 educational levels and focuses largely on issues related to identification practices and/or program participation.

However, in a recent longitudinal study of the college and career experiences of minority high school valedictorians and salutatorians, Arnold (1993) examined how the students manage to persist at predominately white institutions. Among her findings were that throughout their college years, the valedictorians and salutatorians continued to view themselves as high achievers and denied feelings of conflict between academic performance and social belonging. Arnold also reported that unlike lower achievers, high achievers perceived themselves as representatives of their communities, but viewed their struggles as problems to cope with on an individual basis. Although they acknowledge oppressed conditions in areas such as race, gender and class, high achievers essentially choose not to make them central in their lives. However, Arnold did find that the students were more likely to drop out of college, were more likely to end their education with vocationally oriented bachelor's degrees and often perceived themselves as dissatisfied workers.

High achieving black students experience difficulties that face almost all black students on predominately white college campuses (Arnold, 1993). They lack faculty role models and appropriate counseling, and experience isolation. Colangelo and Zeffrann (1977) warned that it is inappropriate to assume that gifted students can manage without the assistance of adequate counseling and advisement related to choosing majors and deciding on a career path. Because many gifted students are multitalented and often have a wide range of interests to consider, they are more likely to experience confusion about career choices than non-gifted students. Gifted black college students must also cope with the high expectations of others and will make unpopular decisions regarding career and postgraduate studies (Blackburn & Erickson, 1986; Fredrickson, 1986; Kerr, 1986). Arnold also noted that high schools and colleges fail to provide black students with the tacit knowledge that leads to effective career strategies found among white privileged students. She maintains that because black student participation in higher education "mirrors and replicates" the larger oppressive structures in society, the college environment should provide role models and mentors to support and encourage them. Essentially, colleges and universities must actively offer black students assistance in negotiating the institution and making the transition into postgraduate careers.

The Postgraduate and Career Choices
of Black College Students

Issues Related to Minority Graduate School Participation

National census and demographic reports indicate that by the year 2040, ethnic minorities will make up a substantially high percentage of the nation's total population. This reality has prompted educational researchers to examine more closely, the college participation trends of minorities (Carter & Wilson, 1993; Hodgkinson, 1992; National Center for Education Statistics, 1993; Otuya, 1994).

In 1992, African American men earned fewer postsecondary degrees than African American women. For instance, of degrees granted to African Americans, women earned 63% of the bachelors degrees, 65% of the master's degrees, 53% of the first professional degrees and 59% of the doctoral degrees.

Of the total number of bachelor's degrees conferred in 1992, 27% were earned by African Americans. Of all bachelor's degrees awarded to African Americans, 25% received them in engineering, 43% in the physical sciences, 41% in mathematics, 38% in computer sciences and the life sciences and 37% in education (Digest of Education Statistics, 1993; Otuya, 1994).

Recent studies on the participation of African Americans in graduate schools have reported on issues

related to enrollment patterns, financial support and success predictions (Brazziel, 1988; Centra, 1980; Malaney, 1987a, 1987b, 1988; Nettles, 1987; Weiler, 1993; Willie, Grady, & Hope, 1991). Brazziel (1988) suggested that institutions such as government agencies, corporations, and state higher education boards and foundations should share the responsibility of increasing the production of minority graduate degrees. Specifically, "if minorities are to enter graduate schools at a rate comparable to non-minorities, money should be provided for scholarships, fellowships, assistantships and grants" (Brazziel, p. 114). For instance, in his study on minority graduate school enrollment, Brazziel (1988) found that twice as many whites as African Americans received teaching and research assistantships for graduate studies. The primary source of support for graduate studies for African Americans is reliance on personal and family resources and earnings from employment.

While a low proportion of minorities actually receive advanced degrees, Centra (1980) notes that their aspirations to pursue graduate studies are high. However, their individual decisions to enroll in graduate school have been based on factors unrelated to aspirations such as the tight job market, costs and financial support. Brazziel (1988) and Weiler (1993) further pointed out a major deterrent to graduate enrollment: many students have foregone graduate

enrollment to avoid huge debts upon completion of their studies.

Weiler (1993) compared the freshman year postgraduate expectations to actual graduate enrollment for a sample of minority undergraduate students. The study established that factors other than financing graduate education were related to the students' choice of enrolling. For instance, minority students from the lowest family income bracket are less likely to enroll and a rather large proportion "change their minds" during the process of the college experience. On the other hand, compared to caucasian students, minority students who actually enrolled in graduate school manifested qualities similar to their caucasian counterparts. Particularly, Weiler found that for both groups, students who actually enrolled were those who had earned relatively good grades in college.

When demographic background variables are introduced as possible explanations to enroll or not to enroll in graduate school, family income does not play a significant role for either caucasian or minority students. However, for caucasians, the educational level of the father and test scores have significant effects on the choice to enroll. In contrast, the effects of being in the lowest income bracket reduce the probability of minorities enrolling in graduate school (Weiler, 1993).

Institutional Types

In one of the first studies to examine relationships between institutional type and graduate school enrollment, Astin (1963) found no differences in the postgraduate aspirations of students who attended either public or private institutions. Weiler (1993) reported that both caucasian and minority students increase their chances of graduate school enrollment if they attended either the Big Ten or "Ivy Plus" institutions.

Brazziel (1988) discussed differences in the graduate school enrollment of students enrolled in historically black or predominantly white colleges and universities. He pointed out that black colleges succeed at producing black doctorates because, as a function of the colleges' mission, they have always focused on preparing students for graduate study. Black colleges and universities also have an established record of producing graduates who go on to become doctors and to receive doctorates and MBA's (Willie, Grady & Hope, 1991).

Predictions of Graduate School Enrollment

Centra's (1980, p. 476) study on the relationship between particular prediction variables to black students' choice to enroll in graduate school produced interesting conclusions. Four major findings were generated from the study: (a) GRE-verbal scores were the best predictors of student plans to obtain a doctoral degree, (b) test scores,

undergraduate grades and gender appeared to predict graduate degree plans better than the characteristics of the undergraduate institutions, (c) characteristics such as GRE-scores, GPA during the last two years of undergraduate college are good predictors, and (d) males are more likely than females to aspire to a doctoral degree even after the ability levels of both groups were held constant. Centra also recognized that other variables such as finances, socioeconomic status and type of career the student will enter also played a significant role in predicting degree expectations. However, Weiler (1993) reported that although background characteristics such as gender, race, parent education and occupation, test scores and family economic circumstances have insignificant direct effects on post-baccalaureate choice, both the direct effect and indirect effects of undergraduate experience variables are significant explanations.

Summary

This review of the literature relates to the prior academic experiences, family characteristics, undergraduate experiences and postgraduate plans of gifted and high achieving black college and university students. It identifies issues pertinent to gifted definitions, identification practices, family background characteristics, black student enrollment in predominately white institutions of higher education and trends in graduate school enrollment

for blacks.

Of the many studies reviewed, the most current recommend expanding definitions beyond single test scores and improving efforts to include students from diverse socioeconomic backgrounds. Research in the areas of developing potential of gifted students through program participation suggests that early intervention improves student success beyond the primary and secondary educational levels. While there does not seem to be any known distinguishing family characteristics of gifted and non-gifted black achievers, the literature establishes that for blacks, the diversity in socioeconomic family backgrounds should not impede identification as being "gifted."

The literature that covers the undergraduate experiences of blacks enrolled in predominantly white versus historically black colleges concurs. That is, the overall academic achievements and social satisfaction of even the most capable of black students are negatively affected at predominantly white institutions. Although the college participation of blacks has increased in the past two decades, compared to the total population of 18-24 year old college students, blacks remain underrepresented in higher education at both the undergraduate and graduate school levels.

CHAPTER III

METHODOLOGY

The major purpose of this study was to identify and compare the pre-college academic experiences, family characteristics, undergraduate experiences and postgraduate plans of African-American gifted college students. This chapter will describe the research design, population, instrumentation, data collection procedures and data analyses.

Research Design

Two nonexperimental research designs were used to compare the prior academic experiences, family characteristics, undergraduate experiences and postgraduate plans of gifted and non-gifted African-American college and university students. An ex-post facto research design was used to investigate and compare student responses in terms of the independent variable (gifted versus non-gifted). This design was selected because it requires groups that are homogeneous, except for the independent variable, and the sample does not need to be randomly selected from the population.

A descriptive research design was also used in this study. It involved collecting data in order to test

hypotheses or answer research questions concerning the current status of the subjects under study. For instance, previous research has not investigated differences in undergraduate experiences for gifted and non-gifted black college students. This research documents, summarizes and interprets self-reported data on a variety of dependent variables.

Population

The targeted population included male and female African-American college and university students. The population consisted of 1200 full-time black juniors and seniors between the ages of 18 and 24 who were enrolled in six institutions during Spring and Fall of 1994. The students were identified for the researcher by administrators at six colleges and universities in Illinois: Northwestern University, University of Chicago, Loyola University Chicago, University of Illinois at Champaign-Urbana, Lake Forest College in Lake Forest and Bradley University in Peoria. These institutions were selected in order to have representatives from both the public and private sectors as well as large and small institutions. Additionally, both urban and rural/suburban institutions were included. For example, of the six institutions, Loyola University Chicago and the University of Chicago were the only two located in the city of Chicago. For the purpose of maintaining anonymity of the institutions, the results of

this study will refer to these six institutions by identifiers, Institution A through Institution F.

Instrumentation

In order to assess the prior academic experiences, family characteristics, undergraduate experiences and postgraduate plans, three surveys (two developed by the researcher and one created by Moos & Moos) were combined into one 14 page booklet. The three surveys included (a) Postgraduate Plans and Undergraduate Experience Questionnaire, (b) Personal and Family Background Questionnaire, and (c) the Family Environment Scale (Moos & Moos, 1981).

Postgraduate Plans and Undergraduate Experience Questionnaire

This instrument was developed to assess student opinion regarding plans for graduate school in addition to career plans and undergraduate experiences. For instance, students were asked about obstacles which might interfere with their graduate school plans. They were asked if their postgraduate plans were motivated by attributes such as prestige or financial success. Items such as satisfaction with their college administration and faculty were included in the undergraduate experience section of the questionnaire.

The Postgraduate and Undergraduate Experience Questionnaire is a 33 question instrument developed by the

researcher (see Appendix A). It consisted of 50 items organized into seven sections utilizing a 5-point Likert-type scale. The seven sections were as follows: (1) importance of graduate school, (2) importance of career plans, (3) motivations related to postgraduate plans, (4) college involvement, (5) Academic effort, (6) college experiences and (7) satisfaction with institutional factors such as the administration, faculty and other students. Additionally, the questionnaire contained 12 yes/no questions and two open-ended questions. The yes/no questions provided information on (1) when the decision was made to enroll in graduate school, (2) highest degree the students hoped to earn, (3) graduate exams, (4) graduate school acceptance, (5) perceptions on obstacles to graduate school, (6) perceptions on obstacles to careers, (7) classification as junior or senior, (8) current grades, (9) enrollment in honors courses, (10) faculty mentoring and contacts, (11) contact with counselors, and (12) perceptions on general ability in relation to others. The two open-ended questions were related to: (1) college experiences that contributed most toward postgraduate plans and (2) family background experiences that contributed most to postgraduate plans.

Two sections were modified versions of a survey used by the Center for Talent Development at Northwestern University, Evanston, Illinois. The Center has used these

scales to assess the career motivations of gifted and talented students. Another scale is a modified version of a survey developed by Jacqueline Fleming in her research on the undergraduate experiences of black college students (Fleming, 1984).

Personal and Family Background Questionnaire

The Personal and Family Background Questionnaire consisted of 25 items that relate to family background characteristics and prior academic experiences. These items were primarily of the closed-form type and yielded both categorical and continuous data. Items such as family annual income and parent educational level were included to compare differences between the two groups being studied. The respondents also provided responses to questions related to their age, birth order, parents' employment status, living arrangement prior to entering college, high school grade point average, whether they attended public or private high schools, enrollment in honors courses and grade level acceleration. Personal background items such as experience in gifted and talented programs or enrollment in honors courses were also included to yield data that would assist in classifying students as gifted or non-gifted for the purpose of this study (see Appendix B).

Family Environment Scale (FES)

The third survey is the Family Environment Scale (FES) developed by Moos and Moos (1981). This instrument measures multiple dimensions of family social environment by assessing family environment functioning on 10 subscales clustered into three domains: (1) Relationship Dimensions (cohesion, expressiveness, conflict), (2) Personal Growth Dimensions (independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation, and moral-religious emphasis), and (3) System Maintenance Dimensions (organization and control, see Appendix C).

The FES was included in the study to compare mean scores of the gifted and non-gifted groups to the mean scores of the Moos sample of African-Americans. The FES is widely used and has been normed for a sample of 454 African-Americans as well as other ethnic groups. However, the authors suggest that comparisons should be made cautiously because the normed sample of African-American families was small, drawn primarily from middle class populations, and family size and socioeconomic status were not controlled (Moos & Moos, 1981 p. 23).

This survey uses a true-false format with 90 items equally distributed to make up ten subscales. The internal consistency coefficients range from .61 to .78. Item-to-subscale correlation coefficients range from .45 to .58 and

eight week test-retest reliability range from .68 to .86. Interscale correlation coefficients averaged .20 (Moos & Moos, 1981 p. 21).

Pilot

The three surveys were piloted with five currently enrolled African-American juniors and seniors between the ages of 18 and 24. These students provided encouraging feedback about the surveys. They mentioned that although the survey was lengthy, it was welcomed because the items forced them to think about their own individual experiences as college students. The pilot group agreed that all of the question items were clear and unambiguous. On the average, the survey booklet took the students approximately 20 minutes to complete. Finally, students completing the pilot study were not included in the final sample.

Data Collection Procedures

In Fall 1993, the researcher first contacted and requested the assistance of administrators from six Illinois colleges and universities. The administrators were asked to help identify currently enrolled African-American juniors and seniors for the study.

After final authorization to contact the students was obtained from administrators on each of the six campuses in Spring of 1994, mailing labels were created for currently enrolled, full-time, African-American juniors and seniors. At the request of each institution, the mailing labels

remained at the participating institutions until the survey instruments were mailed to students from each institution.

A cover letter inviting students to participate in the study was mailed to 1200 students along with a packet containing three survey instruments. The letter explained the nature of the study, the contribution it would make to the literature on black students in higher education and an incentive offer of a drawing among respondents for a \$100.00 cash gift certificate. The letter assured that participation in the study was voluntary and confidential. Each student was provided with a pre-addressed stamped envelope for returning the survey directly to the researcher. In some cases, students returned the surveys to the administrator's office on their campus in a sealed envelope. Administrators from two institutions volunteered their student workers to solicit unreturned questionnaires via telephone follow-up calls. Copies of the cover letter and instruments are included in Appendices A through D.

The first mailing of 1200 yielded 133 surveys; however, only 112 were usable thus providing a return rate of 9.3%. An initial examination of the surveys revealed that most of the respondents were not gifted. For the purpose of increasing the pool of potential students in the gifted category, the researcher mailed a second set of 250 surveys to Institutions A and B, the two institutions viewed as the most highly selective, competitive and most likely to have a

larger number of gifted black students enrolled. The second mailing yielded 40 usable surveys. Thus, a total of 152 surveys were usable, which yielded an overall return rate of 12.6%. The very low rate of return was disappointing and was likely due to the timing of survey distribution which occurred late in the Spring semester and near the time of final exams for the students. Another possible explanation for the low return could be related to the topic of the dissertation, "giftedness among black college and university students".

Data Analyses

The researcher coded and separated each returned questionnaire into two groups: gifted and non-gifted. For the purpose of this study, the students were classified as either gifted or non-gifted. Students were placed in the "gifted" category if they met one or more of the following criteria before enrolling in college: (1) participated in a recognized local or national program for the gifted and talented, (2) were recommended for a gifted and talented program by a school district, (3) enrolled in honors courses, (4) presented evidence that their IQ score is 140 or above, (5) accelerated one or more grade levels, (6) were designated a national merit scholar, (7) participated in a recognized program for artistically or creatively talented students, (8) obtained an SAT combined score above 1120, or (9) obtained an ACT composite score above 25. SAT and ACT

exam criteria were set at two standard deviation units above national averages for African American students who took the exams for the years 1989 and 1990.

The questionnaire responses were entered into a SAS data-entry program and transferred to an IBM mainframe computer at Loyola University Chicago. The data were statistically analyzed using the Statistical Package for the Social Sciences, SPSS-X (SPSS, Inc, 1990). Frequency distributions were obtained on all variables for all respondents. Cases were then split into the two groups and a second set of frequency distributions were obtained.

The data were next analyzed by computing means and standard deviations for the four major clusters of variables: (a) prior academic experiences, (b) family characteristics, (c) undergraduate experiences, and (c) postgraduate plans. Means and standard deviations were computed to compare and analyze the variables for the two groups. Chi-square tests of significance were used for categorical variables and t-tests of significance were used to determine whether two means were significantly different at a selected probability level for continuous variables. To reduce several of the items from the Postgraduate and Undergraduate Experience Questionnaire to a manageable number of scales, a factor analysis was also utilized. For example, seven items formed an importance of graduate school scale, six items formed a financial stability scale, three

items formed a philanthropic scale and three items formed a career and graduate school prestige scale (see Appendix E).

Issues of internal validity of the design were considered in drawing conclusions about the sample. One possible threat to internal validity in this study is sample selection. However, because group assignments were based on a combination of self-reports and a thorough review by the researcher, this threat was considerably reduced.

For this study, students not meeting at least one or more of the above criteria comprised the non-gifted group in the data analyses. Selection for either classification was based on the students' self-reported responses and the researcher's subjectivity. For instance, when the self-reported college board exam scores were highly inconsistent with other self-reported data, a combination of indicators such as enrollment in honors courses, high school g.p.a or participation in a program for the gifted and talented were used to classify students. These measures of checks and balances along with the range of criteria provided for more accurate placement given the potential problems inherent in self-report data.

Summary

This chapter has described the methodology used for answering the major research questions and testing the hypotheses. It has described the research design, how the respondents were identified and contacted, development of

the instruments, and data collection and analyses. The chapter that follows presents and discusses the research results in relation to each of the major research questions and hypotheses.

CHAPTER IV

RESULTS AND DISCUSSION

The results presented and discussed in this chapter are organized around the major research questions and hypotheses of this study which pertain to the pre-college academic experiences, undergraduate experiences, family characteristics and postgraduate plans of gifted and non-gifted black college students. Demographic, family and prior academic experience results were obtained from the Personal and Family Background Questionnaire (see Appendix B) and the Family Environment Scale (FES) (see Appendix C). Results regarding postgraduate plans and undergraduate experiences were obtained from the Postgraduate Plans and Undergraduate Experience Questionnaire (see Appendix A).

Respondent Profile

The three questionnaires used in this study were mailed as a set to 1200 full-time enrolled, college and university African-American students between the ages of 18 and 24. As described in greater detail in Chapter III, a total of 173 surveys were returned to the researcher after one follow-up attempt was made to students in the sample. Of the 173 returned surveys, 152 were considered usable thus providing a final return rate of 12.6%. The 21 nonusable

questionnaires were either incomplete or the respondents did not meet the 18-24 year old age requirement. Table 1 reveals the number of surveys distributed at each of the six participating institutions, the number returned, the number usable, and the usable rate of response.

Table 1

Surveys Distributed and Returned at Participating Institutions

Survey Returns

Institution	Distributed	Returned	Usable	Usable Return %
Institution A	200	42	39	20
Institution B	50	27	27	54
Institution C	300	28	21	7
Institution D	100	21	18	18
Institution E	50	20	17	34
Institution F	<u>500</u>	<u>35</u>	<u>30</u>	6
	1200	173	152	

Overall Return rate: 12.6%

Gifted Versus Non-Gifted Respondents

The usable surveys were divided according to the gifted or non-gifted criteria established for this study. These multiple criteria and the number of respondents meeting each criterion are shown in Table 2. Students were classified by the researcher into the gifted or non-gifted groups based on an analysis of each respondent's answers to the checklist provided (i.e., gifted criteria). Respondents who reported unusually high SAT/ACT test scores were further examined for participation in gifted and talented programs including school district recommendations for participation in such programs. In such cases, the researcher examined responses for documentation of name and location of the gifted program or school district.

The number of respondents classified as gifted and who met one or more of the multiple criteria established by the researcher was as follows: three met one criterion; six, two criteria; 23, three criteria; 47, four criteria; 14, five criteria; and only one respondent met six of the nine criteria. As expected, the use of these multiple criteria to classify students increased the number of students who would be classified as "gifted", using the researcher's comprehensive definition based on the literature (Harris & Ford, 1991; Richert, 1985). The use of multiple criteria to classify students also increased the likelihood of placing students into the gifted category who may not have been

Table 2

Respondent Placement into Gifted and Non-Gifted Categories
Based on Respondent Self-Reports

*Criterion	Gifted (n=94)		Non-Gifted (n=58)	
	N	%	N	%
Enrolled in Honors Courses	87	93	30	52
Participated in Gifted Program	76	81	-	-
National Merit Scholar	75	80	7	12
School District Recommended for Gifted Program	74	79	7	12
ACT score above 25	42	45	4	7
SAT score above 1120	36	38	-	-
Accelerated one or more grades	23	25	2	3
Participated in Artistically Gifted Program	16	17	1	1
IQ score 140+	1	-	-	-

*Note: Respondents provided self-reports for more than one category

identified as gifted by their school districts or other educational agencies.

The results in Table 2 show that 93% of the gifted respondents were enrolled in honors courses in high school and 81% had participated in gifted and talented programs. While 52% of the non-gifted respondents (n = 30) were enrolled in honors courses, none had participated in gifted

and talented programs. This researcher also believes that because most high school curriculums offer honors, college-prep and advanced placement courses for college bound students, having 30 "non-gifted" students in the honors courses category was expected.

Although students from both groups were recommended for gifted programs by their school districts, many more from the gifted group were recommended (79% to 12%). The seven non-gifted respondents who indicated that their school districts recommended them for gifted programs failed to provide information on those programs; and for a very few students, their unusually high SAT and ACT scores were inconsistent with other self reports such as not being selected as National Merit scholars or being enrolled in honors courses. For these reasons, these students were not classified as "Gifted" for the purpose of this study.

Table 2 also indicates that gifted students in the study had been accelerated one or more grade levels more frequently than their non-gifted counterparts (25% to 3%); and gifted students received recognition as National Merit Scholars more frequently than non-gifted students (80% to 12%).

Table 2 displays the number and percentages of respondents who obtained college board exam scores at a level to meet one criterion for "gifted" status in this study. The results show that 36 (38%) of the gifted group

reported SAT scores above 1120 while none of the 58 non-gifted respondents met this criterion. Similarly, many more of the gifted than the non-gifted respondents reported ACT scores above 25 (45% to 7%). The combined SAT exam scores range from 800 to 1600. Of the 82 gifted respondents reporting SAT scores, 23% had scores between 900 and 990 compared to 42% of the 38 non-gifted respondents. At the higher end, only 6% of the gifted and none of the non-gifted reported SAT scores at or above 1300 (see Table 3). The composite ACT scores range from 0 to 36. Only six percent of the 53 gifted respondents reported ACT scores at or below a score of 20 compared to 78% of the 49 non-gifted respondents. At the higher end of the ACT exam scores, 31% of the gifted and none of the non-gifted reported ACT scores at or above 28 (see Table 4).

The importance of including multiple criteria to place students in the gifted category is apparent when considering the college board test scores of the respondents. For instance, a few respondents who had obtained SAT scores in the 900-990 range and ACT composite scores in the 18-20, 29% were classified as gifted (see Tables 3 & 4).

The use of multiple criteria for placing students in the gifted category in this study is consistent with the literature which suggests that more than IQ and test scores should be used as criteria to place students in gifted programs (Baldwin, Gear & Lucito, 1978; Gay, 1978; Hilliard,

Table 3

SAT Test Scores for Gifted and Non-Gifted Respondents

SAT Combined Score	Gifted (n=82)		Non-Gifted (n=38)	
	n	%	n	%
above 1500	--	--	--	--
1400 - 1500	2	2	--	--
1300 - 1390	3	4	--	--
1200 - 1290	5	6	--	--
1100 - 1190	26	32	3	8
1000 - 1090	21	26	7	18
900 - 990	19	23	16	42
Below 900	--	--	12	32

Note: Respondents could provide self reports for the SAT, ACT or both.

SAT Range:	SAT Mean:	Non Responses
Gifted: 970-1420	1,161.00	12
Non-Gifted 780-1110	950.00	20

Table 4

ACT Test Scores for Gifted and Non-Gifted Respondents

ACT Composite Score	Gifted (n=53)		Non-Gifted (n=49)	
	n	%	n	%
34 - 36	--	--	--	--
31 - 33	3	6	--	--
28 - 30	13	25	--	--
25 - 27	26	49	4	8
21 - 24	8	15	5	10
18 - 20	3	6	38	78
Below 18	--	--	2	4

Note: Respondents could provide self reports for the SAT, ACT or both

ACT Range:	ACT: Mean:	Non Responses
Gifted: 19-31	26.00	41
Non-Gifted 17-24	19.00	9

1976; Mckenzie, 1986; Stronge, Lynch, & Smith, 1987).

The results displayed in Table 5 indicate that of the 152 respondents, 112 (74%) were females and 40 (26%) were males. Gender comparisons between the groups indicate that 67 (71%) in the gifted category were females and 27 (29%) were males; while 45 (78%) of the non-gifted were female and 13 (22%) were males. These gender differences tend to be consistent with the literature on the participation of

Table 5

Demographic Characteristics of Respondents

Item	All (n=152)		Gifted (n=94)		Non-Gifted (n=58)	
	N	%	N	%	N	%
<u>Gender</u>						
Male	40	26	27	29	13	22
Female	112	74	67	71	45	78
<u>Class Standing</u>						
Juniors	73	48	46	49	27	47
Seniors	79	52	48	51	31	53
<u>Mother's Education</u>						
Elementary	10	7	5	5	5	9
High school	38	25	21	22	17	29
Two years of college	55	36	35	37	20	34
Bachelor's degree	28	18	16	17	12	21
Master's degree	19	13	15	16	4	7
Professional degree (M.D., D.D., J.D.)	2	1	2	2	--	--
Doctoral degree	--	--	--	--	--	--
No response	--	--	--	--	--	--
<u>Father's Education</u>						
Elementary	13	10	8	10	5	10
High school	43	32	20	24	23	44
Two years of college	27	20	17	21	10	19
Bachelor's degree	28	21	22	27	6	12
Master's degree	15	11	9	11	6	12
Professional degree (M.D., D.D., J.D.)	6	4	6	7	2	4
Doctoral degree	3	2	1	1	--	--
No response	17	--	11	--	--	--
<u>Mother's Employment</u>						
Full-time	114	76	75	82	39	67
Part-time	13	9	5	5	8	14
Not working	22	15	12	13	10	17
Retired	1	--	2	--	1	1
No response	2	--	--	--	--	--

Table 5 (continued)

Item	All (n=152)		Gifted (n=94)		Non-Gifted (n=58)	
	N	%	N	%	N	%
<u>Father's Employment</u>						
Full-time	110	86	75	94	35	75
Part-time	4	3	1	1	3	6
Not working	7	6	2	3	5	11
Retired	6	5	2	2	4	8
No response	25	--	14	--	11	--
<u>Annual Family Income</u>						
\$19,000 or less	20	13	12	13	8	14
\$20,000 to \$29,999	35	23	18	19	17	29
\$30,000 to \$39,999	29	19	15	16	14	24
\$40,000 to \$49,999	23	15	15	16	8	14
\$50,000 to \$59,999	18	12	12	13	6	10
\$60,000 and over	26	17	21	23	5	9
No response	1	1	1	--	--	--
<u>Living Arrangement Prior to College</u>						
Mother & father	64	42	49	52	15	26
Mother only	76	50	38	40	38	66
Father only	2	1	1	1	2	3
Legal guardian	4	3	6	6	3	5
Other	6	4	--	--	--	--
<u>High School</u>						
Public	124	82	73	78	51	88
Private	28	18	21	22	7	12
<u>Birth Order</u>						
1st born	53	35	28	29	26	45
2nd child	57	38	38	41	19	33
3rd child	17	11	11	12	6	10
4th child	14	9	12	13	2	3
5th child	6	4	3	3	3	6
6th child	2	1	1	1	2	3
7 or more	3	2	1	1	--	--

African-Americans in higher education (Carter & Wilson, 1993). For example, during academic year 1992, 61% of all African-Americans enrolled in institutions of higher

education were females compared to the 39% who were males. These gender differences raise serious concerns regarding previous and possibly future enrollment trends of African-American males particularly in gifted and talented programs and in higher education more generally.

The respondents in the study were fairly equally divided among undergraduate juniors and seniors with 48 (51%) of the gifted group being seniors and 46 (49%) being juniors. Thirty-one (53%) of the non-gifted group were seniors and 27 (47%) were juniors. Upper level undergraduate students were selected to participate in the study because they represent college students who are most likely to have made decisions about postgraduate plans regarding graduate and professional schools or careers, an important focus of this study.

Table 5 also displays parent educational level for the respondents. Of all 152 respondents, 68% of the mothers and 58% of the fathers had two or more years of college. Comparisons between groups revealed that 72% of the mothers of the gifted and 62% of the mothers of the non-gifted had two or more years of college. Comparisons between groups also show that 67% of the fathers of the gifted and 47% of the fathers of the non-gifted respondents had two or more years of college. A very small percentage of all respondents reported having parents who had doctoral or professional degrees. These findings indicate that

parents of the gifted respondents in this study have higher levels of education. Additionally, the results are consistent with the literature which notes a wide diversity in parent education of gifted and talented children (Frasier, 1987; Jenkins, 1950; Vantassel-Baska, 1989).

Data were also collected on the employment status of parents at the time the students first enrolled in college. Table 5 shows that of the 152 respondents, 114 (76%) of the mothers were employed full-time compared to 110 (86%) of the fathers. Comparisons between gifted and non-gifted students revealed that 75 (82%) mothers of the gifted were employed full-time compared to 39 (67%) mothers of the non-gifted respondents. Comparisons between fathers of gifted and non-gifted students revealed that 75 (94%) fathers of the gifted were employed full-time compared to 35 (75%) fathers of the non-gifted respondents. The finding that mothers of the gifted were employed full-time considerably more often than mothers of the non-gifted is inconsistent with the literature on gifted students in general. For instance, Vantassel-Baska (1989) noted that mothers of the gifted tend to be homemakers who focus their time and energy on their children. However, for black students in this study, the working mother's contribution to the family's income may have provided the means for the students to receive educational enrichment opportunities otherwise not available to them.

Table 5 identifies the annual family incomes for the respondents in the study. Comparisons between gifted and non-gifted respondents revealed that as many gifted as non-gifted students came from families with incomes of \$19,000 or less (13% to 14%); however, more gifted students came from families with incomes of \$60,000 or more than the non-gifted respondents (23% to 9%). The reported family income of the respondents is again consistent with the literature suggesting that gifted students come from higher income families, but are also likely to come from lower socioeconomic status families (Frasier, 1987; Jenkins, 1950; Vantassel-Baska, 1989).

Students were asked to provide information regarding with whom they lived just prior to entering college. The results in Table 5 show that of the 152 respondents, 64 (42%) lived with their mothers and fathers; while 76 (50%) lived with their mothers only. Comparisons between gifted and non-gifted revealed that 49 (52%) of the gifted respondents lived with their mothers and fathers compared to 15 (26%) of the non-gifted respondents; 40% of the gifted respondents lived with their mother only compared to 66% of the non-gifted. The finding that more students in this study come from households headed by mothers is no surprise given the status of the family in the United States today (Dickerson, 1995).

A study of 25 years ago noted that black children from

female-headed households did not attain the same educational and occupational levels as black children from households in which both parents are present (Rainwater, 1970). The finding that more of the gifted students come from intact families--that is, both mother and father present--is consistent with the literature on gifted children in general (Olszewski, Kulieke & Buescher, 1987). However, the intact homes of gifted black students was a surprising finding given today's high rate of African-American households headed by single mothers. These findings support this researcher's position that family stability and being identified gifted are related irrespective of racial identity (Vantassel-Baska, 1989).

Although the respondents typically attended public schools, Table 5 shows that 21 (22%) of the gifted students attended private schools compared to seven (12%) of the non-gifted respondents. This finding was expected given the family incomes and educational levels of the gifted group. Parents tend to invest in private schools when finances are available to provide the quality of education they believe public schools cannot provide their children.

Previous studies on gifted students have found that gifted children tend to be first born, or that there are no more than two children in the family (Groth, 1975; Pfouts, 1980). Therefore, respondents in this study were asked to report their birth order. Of particular interest are data

revealing first and second birth order of the respondents. The number of children in the families ranged from one to seven or more. Table 5 displays the distribution of birth order for both groups. Comparisons between gifted and non-gifted respondents revealed that 66 (70%) of the gifted students were either first or second born compared to 45 (78%) of the non-gifted students. Contrary to the earlier study by Groth (1975), more of the non-gifted group in this study were first born children.

Clearly, the profile of gifted and non-gifted black college students differs demographically and academically on several important variables. Differences were found for parent education, parent employment, living arrangement prior to college enrollment, annual family income, gifted program participation and standardized test scores.

The students surveyed responded to written questions that were designed to answer the research questions of this investigation. What follows is a presentation of the findings as they relate to each of eight research questions that guided this study.

Research Questions

1. What are the prior academic experiences of gifted and non-gifted black college students?
2. What are the family characteristics of gifted and non-gifted black college students?
3. What are the undergraduate experiences of gifted

and non-gifted black college students?

4. What are the postgraduate plans of gifted and non-gifted black college students?

5. Are their significant differences in prior academic achievements including high school grade point averages, SAT and ACT scores for gifted and non-gifted black college students?

6. Are there significant differences in family characteristics including parent education and employment, annual family income; living arrangement prior to college enrollment; emphasis on family cohesion, achievement orientation, independence and conflict between gifted and non-gifted black college students?

7. Are there significant differences in undergraduate experiences including mentoring, satisfaction with the institution, contact and interactions made with faculty and counselors, current grade point averages, importance of grades and social relations between gifted and non-gifted black college students?

8. Are there significant differences in postgraduate plans including when decisions were made to enter graduate school, highest degree aspiration, perceived obstacles to graduate school enrollment, motivation to attend graduate school and importance of graduate school between gifted and non-gifted black college students.

Research Question #1. What are the prior academic experiences of gifted and non-gifted black college students?

Students were asked to report their college entrance exam scores and high school grade point averages on the Personal and Family Background Questionnaire. The prior academic achievements of the respondents were included in the study in order to compare differences in levels of achievements among and between the groups under study. The results in Table 6 indicate that many more of the gifted than the non-gifted respondents had achieved higher high school grade point averages (92% to 62%). Thirty-eight percent of the gifted group had achieved combined SAT scores above a 1120, while none of the non-gifted group had achieved such scores. Likewise, 45% of the gifted group had achieved ACT composite scores above 25, whereas only 2% had achieved scores in this range.

These results are consistent with the literature on college-bound gifted and talented minority students (Vantassel-Baska & Willis, 1987). For example, the high abilities of gifted students make them more likely to have higher college board exam scores than non-gifted students. However, this researcher believes that more students among the non-gifted in this study would have also achieved higher scores and grades had their experiences been the same as many in the gifted category.

Table 6

Selected Prior Academic Achievements of Respondents (n=152)

*Variable	Gifted (n=94)		Non-Gifted (n=58)	
	N	%	N	%
High School gpa above 3.0	86	92	36	62
ACT score above 25	42	45	4	2
SAT score above 1120	36	38	-	-

*Note: Respondents could answer more than one category; thus total "n" exceeds 152.

Hypothesis #1. Research Question #5 asks whether there are significant differences in the prior academic achievements between gifted and non-gifted black college students. Chi-Square and t-tests of significance were computed to test the hypothesis that there will be no statistically significant differences in the prior academic achievements.

Table 7 displays t-test results for the two samples of gifted and non-gifted, African-American college students on selected variables related to prior academic achievements (i.e., SAT scores, and ACT scores). As Table 7 indicates, significantly more of the gifted students had significantly higher mean SAT scores ($\bar{X} = 1161$ to $\bar{X} = 950$, $p \leq .05$) and significantly higher ACT scores ($\bar{X} = 26$ to $\bar{X} = 19$, $p \leq .05$) than the non-gifted group. Also, chi-square test results

indicated statistically significant differences for the respondents high school grade point averages (see Table 8). These results were expected since early educational enrichment experiences improve the chances of having high test scores and good grades.

School districts, teachers and counselors who are skilled at recognizing individual characteristics such as high scores on standardized tests do a service to gifted and high achieving students when they recommend them for enrichment opportunities, merit scholarships, early college admissions or assistance with the college selection process.

Table 7

t-test Results Between Gifted and Non-Gifted Respondents for SAT and ACT Scores

	Mean	SD	t-Value
<u>SAT Combined score</u>			
Gifted (n=82)	1,161.00	77.690	
Non-Gifted (n=38)	950.00	72.470	10.94*
<u>ACT Composite</u>			
Gifted (n=53)	26.00	2.830	
Non-Gifted (n=49)	19.00	1.440	14.94*
Actual SAT Score Range:			
	Gifted	970 - 1,420	
	Non-Gifted	780 - 1,110	
Actual ACT Range:			
	Gifted	19 - 31	
	Non-Gifted	17 - 24	

*p ≤ .05

Table 8

Chi-Square Test Results of High School Grade Point Averages
(gpa's) for Gifted and Non-Gifted Respondents

GPA's categories	Gifted (n=94)		Non-Gifted (n=58)		Chi-Square
	n	%	n	%	
below 2.80	--	--	4	7	31.50**
2.80 to 3.00	8	9	18	31	
3.01 to 3.50	24	26	22	38	
3.51 to 4.00	52	55	12	21	
4.01 or above	10	10	2	3	

** $p \leq .01$

Mean GPA:

Gifted:	3.68	(3.01 - 3.50)
Non-Gifted	2.82	(2.80 - 3.00)

On the other hand, when agents of school systems lack knowledge about opportunities available for high test scorers, a disservice is rendered.

In sum, these results suggest that in a population of black college students, it is likely that there will be significant differences in college-board exam scores and high school gpa's for gifted and non-gifted students. Therefore, the null hypothesis that there will be no statistically significant differences between the groups for prior academic achievement variables is rejected.

Research Question #2. What are the family characteristics of gifted and non-gifted black college students?

Students were asked to provide socioeconomic information about their backgrounds as of the time they entered college. Respondents answered questions about parent education, parent employment status, family income and their living arrangements prior to college enrollment. The results presented in Table 9 show that mother's educational level was higher for the gifted group compared to the non-gifted group (35% to 28%). The educational level of the fathers was also higher for students in the gifted group than those of the non-gifted group (46% to 28%).

The respondents also indicated whether their parents were employed full-time prior to their entering college. The results in Table 9 show that more of the mothers of the gifted were working full-time compared to the mothers of the non-gifted (82% to 67%). The father's full-time employment status just prior to the student's college enrollment was also higher for the gifted than for the non-gifted group (94% to 75%). This researcher believes that the working mothers and fathers of the gifted group were in the position because of their employment to provide additional educational or enrichment opportunities for the student.

Table 9

Selected Family Characteristics of Respondents (n=152)

	Gifted (n=94)		Non-Gifted (n=58)	
	N	%	N	%
Mother's education is Bachelor's degree or higher	33	35	16	28
Father's education is Bachelor's degree or higher	38	46	14	28
Mother employed full-time	75	82	39	67
Father employed full-time	75	94	35	75
Family income \$29,999 or lower	30	32	25	43
Family income \$50,000 or higher	33	36	11	19
Lived with mother and father	49	52	15	26
Lived with mother only	38	40	38	66

Students also reported with whom they lived just prior to their entering college. A much higher percentage of the gifted group reported living with both parents compared to the non-gifted (52% to 26%). However, the high number (65%) of students from the non-gifted group living with 'mother only', and presumably in single parent families, supports the literature which suggests that the academic performance of children from single-parent households is lower (Mulkey, 1992). However, 38% of the non-gifted respondents reporting high school gpa's above 3.0 were from single-parent homes compared to the 15% who lived with both parents. Likewise,

51% of the gifted respondents reporting high school gpa'a above 3.0 lived with both parents, and 34% were from single-parent homes (see Table 10).

Respondents reported family income level for the period just prior to their entering college. The income categories for this study ranged from \$19,000 or less to \$60,000 or more (see Table 5). The results in Table 9 also show that the non-gifted students were more likely to come from lower income families than the gifted group. Forty-three percent of the non-gifted group reported family incomes of \$29,999 or less compared to the gifted (32%). Conversely, more of the gifted group reported family incomes at or above \$50,000 than the non-gifted group (36% to 19%). These student-reported results of the student's family income level support the literature which suggests a correlation between giftedness and higher family income, although gifted students can be found among all income levels (Frasier, 1987). These family income levels are also consistent with the findings reported earlier regarding educational level and living arrangements prior to college enrollment. Additionally, the results demonstrate the importance of examining differences and similarities in variables such as parent education and two-income households for gifted students. For instance, unlike the non-gifted group in this study, the gifted have two parents living in the home who are more likely to be college educated and better off

Table 10

Percentages of Gifted and Non-Gifted Respondents Living with Mother and Father and Mother Only and High School Grade Point Averages

High School GPA's	Mother & Father		Gifted (n=87)		Non-Gifted (n=53)		Living Arrangement	
	n	%	n	%	n	%	n	%
2.80 or below	--	--	--	--	2	3	2	3
2.80 - 3.00	1	1	5	5	4	7	14	24
3.01 - 3.50	15	16	6	6	7	12	12	21
3.51 - 4.00	28	30	22	23	2	3	10	17
4.01 or above	5	5	5	5	--	--	--	--

financially. However, 36% of all respondents in the study came from backgrounds where the family income is \$29,999 or less (see Table 5).

The students in this study were also asked to respond to statements from the Family Environment Scale (FES). These statements provided data on the students' perceptions of their family's social climate. The FES measures family characteristics along ten subscales. The 10 subscales are cohesion, expressiveness, conflict, independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation, moral-religious emphasis,

organization and control.

The FES results in Table 11 show that family characteristics of gifted black students in this study are consistent with the literature on family characteristics of gifted students in general. Specifically, Olszewski, Kulieke and Buescher (1987) found that the homes of gifted students tend to be more cohesive and child centered. Similarly, Colangelo and Dettman (1983) reported that families of gifted students tend to practice independence. Additionally, several studies have described the homes of gifted black children to be highly achievement oriented and children are encouraged to be assertive and self-sufficient (Clark, 1983; Rhodes, 1992).

Hypothesis #2. Research Question #6 asks whether there are significant differences in family characteristics between gifted and non-gifted black college students. Chi-Square and t -tests of significance were computed to test Hypothesis #2 that there will be no statistically significant differences between the two samples on selected family characteristics.

As Table 11 indicates there were no statistically significant differences on any of the ten subscales of the Family Environment Scale (FES). Results of the t -tests reveal that no significant differences between the gifted and non-gifted group were found.

Table 11

t-Test Results of Family Environment Scale

Subscale	Normed African Americans (n=454)		Gifted (n=94)		Non-Gifted (n=58)		t-Test Gifted Non-Gifted
	Mean	SD	Mean	SD	Mean	SD	
Cohesion	6.90	1.94	7.21	1.96	6.70	2.60	1.27
Expressiveness	4.97	1.73	4.85	1.70	4.81	1.37	.16
Conflict	3.26	2.12	3.91	2.21	4.04	2.40	- .31
Achievement orientation	6.49	1.50	6.19	1.40	5.91	1.77	1.01
Independence	6.04	1.72	6.60	1.53	6.39	1.66	.78
Intellectual-cultural orientation	5.45	2.04	5.69	2.32	6.01	2.34	- .81
Active-recreational	5.01	2.33	4.80	2.37	5.03	2.09	- .62
Moral/religious emphasis	5.71	2.24	5.97	2.17	6.24	1.60	- .85
Organization	6.02	2.28	5.17	2.05	5.89	2.25	-1.94
Control	4.99	2.07	5.34	1.69	4.96	2.08	1.16

* $p \leq .05$

Note: Each subscale has nine "True-false" items, potential range is 0 = family placed less emphasis to 9 = family placed more emphasis (Moos & Moos, 1981).

These FES results are consistent with the literature which notes that gifted children come from families that encourage cohesiveness, self-expression, achievement and independence (Colangelo & Dettman, 1983; Marion, 1981; Olszewski, Kulieke & Buescher, 1987). Although, the FES authors caution against drawing conclusions about the normed sample of African Americans, it is likely that the non-gifted comparison group may be very similar to the normed sample: both the normed and the non-gifted groups believe their families place less emphasis on cohesiveness, intellectual-cultural orientation and independence than the gifted students in this study.

Table 12 presents the results of a Chi-square analysis for selected family characteristics such as parent education and employment status, the student's living arrangement prior to enrolling in college and annual family income. As the Table shows, the educational levels of the mothers revealed statistically significant differences. Significantly more of the mothers of the gifted than the non-gifted had acquired an educational level of a bachelor's degree or beyond (35% to 28%, $X^2 = 1.86$, $p \leq .01$). Significantly more of the gifted than the non-gifted group had come from higher income families (36% to 19%, $X^2 = 2.30$, $p \leq .01$). The employment status of the fathers revealed statistically significant differences. Significantly more of the fathers of the gifted than the non-gifted students

Table 12

Chi-Square Test Results for Selected Family Characteristic Variables Between Gifted and Non-Gifted Respondents

Item	Gifted				Non-Gifted				Chi-Square
	Yes	%	No	%	Yes	%	No	%	
<u>Mother's Education</u>									
		<u>(n=94)</u>				<u>(n=58)</u>			
Elementary	5	5	89	95	5	9	53	91	1.86**
High School	21	22	73	78	17	29	41	71	
2 years coll	35	37	59	63	20	34	38	66	
B.A. degree	16	17	78	83	12	21	46	79	
M.A. degree	15	16	79	84	4	7	54	93	
Prof. degree	1	--	93	99	2	3	56	97	
Ph.D. degree	--	--	--	--	--	--	--	--	
No response	--	--	--	--	--	--	--	--	
<u>Father's Education</u>									
		<u>(n=94)</u>				<u>(n=58)</u>			
Elementary	8	10	86	90	8	14	50	86	12.32
High School	20	24	74	76	23	44	35	56	
2 years coll	17	21	77	79	10	19	48	81	
B.A. degree	22	27	72	73	6	12	52	88	
M.A. degree	9	11	85	89	6	12	52	88	
Prof. degree	6	7	88	93	2	4	56	96	
Ph.D degree	1	--	93	98	--	--	--	--	
No response	11	--	--	--	--	--	--	--	

Table 12 (continued)

Item	Gifted				Non-Gifted				Chi-Square
	Yes	%	No	%	Yes	%	No	%	
<u>Annual Family Income</u>		<u>(n=94)</u>				<u>(n=58)</u>			
\$19,000 or less	12	13	82	87	8	14	50	86	2.30**
\$20,000-\$29,999	18	19	76	81	17	9	41	91	
\$30,000-\$39,000	15	16	79	84	14	24	44	76	
\$40,000-\$49,000	15	16	79	84	8	14	50	86	
\$50,000-\$59,000	12	13	82	87	6	10	52	90	
\$60,000 & over	21	23	73	77	5	9	53	91	
No response	--	--	--	--	--	--	--	--	
<u>Mother Employed</u>		<u>(n=92)</u>				<u>(n=58)</u>			
Full-time	75	82	17	18	39	67	19	33	5.835
Part-time	5	5	87	95	8	14	50	86	
Not working	12	13	82	89	10	17	48	83	
Retired	--	--	--	--	1	1	57	99	
No Answer	2	--	--	--	--	--	-	--	
<u>Father Employed</u>		<u>(n=80)</u>				<u>(n=47)</u>			
Full-time	75	94	80	6	35	74	12	26	9.569*
Part-time	1	1	79	99	3	6	44	94	
Not working	2	3	78	98	5	11	42	89	
Retired	2	3	78	98	4	9	38	81	
No Answer	14	--	--	--	11	--	--	--	

Table 12 (continued)

Item	Gifted				Non-Gifted				Chi-Square
	Yes	%	No	%	Yes	%	No	%	
<u>Living Arrangement</u>		<u>(n=94)</u>				<u>(n=58)</u>			
Mother & father	49	52	45	48	15	26	43	74	19.637*
Mother only	38	40	56	60	38	66	20	34	
Father only	--	--	--	--	2	3	56	97	
Legal guardian	1	--	--	--	3	5	55	95	
Other	6	6	88	94	--	--	--	--	
No Answer	--	--	--	--	--	--	--	--	

* $p \leq .05$

** $p \leq .01$

were employed either full time or part-time (95% to 81%, $\chi^2 = 9.569$, $p \leq .05$). Similarly, the options for the "living arrangement" variable yielded statistically significant differences. Many more of the gifted students lived with both parents compared to the non-gifted (49% to 15%, $\chi^2 = 19.637$, $p \leq .05$). Finally, many more of the non-gifted students lived only with their mothers (66% to 40%). Students who come from families where both parents are present are more likely, perhaps due in part to a higher family income and stability factors, to receive benefits such as educational enrichment opportunities. Likewise, it is expected that households headed by single mothers are less likely to be in a position to offer such enrichment opportunities to even the brightest of children.

Finally, t -test results revealed significant differences for the "sibling variable. The gifted group reported having more sisters and brothers than the non-gifted ($\bar{X} = 1.89$ to $\bar{X} = 1.13$, $p \leq .01$).

In sum, the results indicate that compared to the non-gifted group, gifted students in the study tended to lived with both parents, a greater percentage of their parents had obtained at least a bachelor's degree, their family income was higher and their mothers were more likely to be employed full-time. Although there were no statistically significant differences between gifted and non-gifted groups, the FES results are consistent with the literature on gifted

children: students identified as gifted in this study come from family backgrounds that encourage achievement, independence, self-expression, and control such as enforcing rules. Specifically in regard to black families of gifted children, the findings support Marion's 1981 study which noted a strong work orientation and high achievement orientation. However, the results did not agree with Marion's findings that gifted black students come from homes that are strongly religious.

The null hypothesis that there will be no statistically significant differences between gifted and non-gifted groups for family characteristic variables is rejected.

Research Question #3. What are the undergraduate experiences of gifted and non-gifted black college students?

The gifted and non-gifted students were compared on seven variables identified in the literature as significant factors in the overall satisfaction and achievement of black students on predominately white college campuses. The seven variables are as follows: (1) faculty mentoring, (2) mentoring with someone other than faculty, (3) mentoring with one of the same gender, (4) initiating contact with faculty when there is a problem, (5) initiating contact with counselors when there is a problem, (6) counselors initiating contact with the student and, (7) achieving high undergraduate grade point averages (see Appendix B).

Essentially, this study explored the undergraduate

experiences of gifted and non-gifted black students in regard to faculty and counselor contacts and interactions. For instance, were the contacts initiated by faculty, counselors or the student? Also explored in the study was the extent to which these students are satisfied with the institution's administration, instruction and social interactions.

The results in Table 13 reveal that the gifted respondents reported having faculty mentors more frequently than the non-gifted respondents (34% to 19%); the gifted are also more likely to have mentors other than faculty (51% to 31%). The results do not support the findings of studies suggesting that compared to the historically black college, black students enrolled in predominantly white institutions do not have faculty mentors (Fleming, 1984; Thompson, 1978; Vaz, 1987). The black students in the present study, both gifted and non-gifted, report having faculty as mentors.

When asked about who initiates contact with faculty, the non-gifted group was more likely to initiate faculty contact than the gifted (83% to 72%); and the two groups were about equal in initiating contact with college counselors (68% to 66%). However, the gifted group reported that college counselors initiated contact with them more than the non-gifted group (40% to 24%). Clearly, both gifted and non-gifted students are seeking faculty and counselor assistance when they are faced with problems.

Table 13

Selected Undergraduate Experiences of Respondents (n=152)

Variable	Gifted (n=94)		Non-Gifted (n=58)	
	N	%	N	%
Have faculty mentor	32	34	11	19
Have other mentor	48	51	18	31
Mentor same gender	34	36	18	31
Initiates contact with faculty when have problems	68	72	48	83
Initiates contact with counselor when have problems	64	68	38	66
Counselors initiate contact	38	40	14	24
Participates in Honors Program	1	--	--	--

Additionally, the present findings clearly show that the students believe that support is available to them. These results, as shown in the next section, support Allen's (1992) contention that black students who initiate contacts with faculty when help is needed are more likely to have positive college experiences. Finally, while the results are in disagreement with studies that suggest that black students at predominantly white institutions interact less with faculty, the present study is one of the first to investigate the undergraduate experiences of gifted and non-gifted black students (Fleming, 1983).

Respondents were also asked to report their current college grade point averages (GPA) measured on a 4.0 scale. The college gpa's were included to examine academic performance and to determine if gifted students had maintained gpa's similar to that earned in high school. The means shown in Table 14 represent the categories for which students could indicate their gpa's. For instance, 1 = below 2.80; 2 = 2.80 to 3.00; 3 = 3.01 to 3.50; 4 = 3.51 to 4.00 and 5 = 4.01 or above. As the Table indicates, more of the non-gifted than the gifted group reported college grade point averages above 3.00 (45% to 34%). Additionally, many more of the gifted than the non-gifted group reported lower gpa's, between 2.80 and 3.00 (43% to 14%). Although the mean differences were very small, the results indicate that slightly more of the non-gifted students reported higher college gpa's than the gifted ($\bar{X} = 2.22$ to $\bar{X} = 2.19$).

Table 15 displays comparisons of college and high school gpa's for the gifted and non-gifted respondents. The results indicate that the mean gpa's for the gifted group were lower in college than in high school. The gifted respondents reported high school gpa's in the 3.51 to 4.00 range and college gpa's in the 2.80 to 3.00 range. On the other hand, the non-gifted respondents reported high school and college gpa's in the 2.80 to 3.00 range. The results in Table 15 indicate that gpa's of the gifted respondents were considerably lower as undergraduate students. Although

Table 14

Current College Grade Point Averages (gpa's) for Gifted and Non-Gifted Respondents

GPA's categories	Gifted (n=94)		Non-Gifted (n=58)	
	n	%	n	%
below 2.80	21	23	24	41
2.80 to 3.00	40	43	8	14
3.01 to 3.50	28	30	15	26
3.51 to 4.00	4	4	11	19
4.01 or above	1	--	--	--

Mean GPA:

Gifted: 2.19 (2.80 - 3.00)

Non-Gifted: 2.22 (2.80 - 3.00) absolute comparisons

between college and high school gpa's cannot be made, this finding supports that of Allen (1982), who also showed that the gpa's of high achieving students tend to decrease in college. This finding may also support claims made by Fleming (1984) who strongly suggests that black student performance is negatively affected at predominantly white institutions. All six institutions in this study are predominantly white institutions.

The students were also asked about their overall satisfaction with institutional factors such as the administration, faculty, instruction and student body (see Table 16). Student responses were made on a five-point

Table 15

High School and College Grade Point Averages (gpa's) for Gifted and Non-Gifted Respondents

	Mean	SD
<u>High School GPA</u>		
Gifted (n=94)	3.68	.779
Non-Gifted(n=58)	2.82	.958
<u>Current College gpa</u>		
Gifted (n=94)	2.19	.871
Non-Gifted (n=58)	2.22	1.185

GPA Means: 1 = 2.80 or below
 2 = 2.81 to 3.00
 3 = 3.01 to 3.50
 4 = 3.51 to 4.00
 5 = 4.01 or above

satisfaction scale, where 1 = very dissatisfied and 5 = very satisfied. Comparisons between the groups revealed that although both groups were not very satisfied with their institution's administration, the gifted group was more satisfied ($\bar{X} = 2.65$ to $\bar{X} = 2.51$). Likewise, gifted students were more satisfied than non-gifted students with the faculty ($\bar{X} = 3.56$ to $\bar{X} = 3.15$) and with instruction ($\bar{X} = 3.74$ to $\bar{X} = 3.56$). However, the gifted students were less satisfied with their student peers ($\bar{X} = 2.73$ to $\bar{X} = 3.10$) than the non-gifted group. Table 16 also shows the degree of importance students place on several college relation variables. The responses ranged from 1 = very unimportant to 5 = very important. Fewer gifted students than non-

gifted viewed college relations factors such as black student involvement, racial tensions, social acceptance and having friends in their majors as important to the college experience. This finding is consistent with Arnold's (1993) assumption that although high achievers acknowledge conditions related to social acceptance such as race, they choose not to make them central. Table 16 also indicates that the non-gifted students placed more importance on earning 'A' grades in college than the gifted students ($\bar{X} = 3.68$ to $\bar{X} = 2.95$). However, more gifted students placed importance on receiving the grades they deserved than the non-gifted ($\bar{X} = 4.77$ to $\bar{X} = 4.62$). The results also show that the gifted students placed less importance on the competence of faculty, on whether black students were encouraged and whether faculty were interested in their well being.

Hypothesis #3. Research Question #7 asks whether there are significant differences in the undergraduate experiences between gifted and non-gifted black college students. Chi-Square and t-tests of significance were computed to test Hypothesis #3 that there will be no statistically significant differences on selected undergraduate experience variables between gifted and non-gifted students.

Table 16 displays t-test results for variables related to student satisfaction with institutional factors, the importance of student relationships, current college grades

Table 16

t-Test Results Between Gifted and Non-Gifted Respondents on Selected Undergraduate Experience Variables

Item	Gifted (n=98)		Non-Gifted (n=58)		t-Test
	Mean	SD	Mean	SD	
<u>Satisfaction with</u>					
<u>Institutional Factors (a)</u>					
Administration	2.65	1.022	2.51	1.173	.76
Faculty	3.56	.850	3.15	1.322	2.10**
Instruction	3.74	.938	3.56	1.045	1.05
Students	2.73	1.079	3.10	.912	-2.26**
<u>Importance of Faculty Interactions (b)</u>					
Competent faculty	4.52	.714	4.65	.690	-1.15
Encouraging black students	4.25	1.730	4.43	.901	-1.04
Faculty interested in well-being	4.03	1.010	4.39	.771	-2.51**
<u>Importance of Relations (b)</u>					
Black student involvement	3.77	1.118	4.15	.970	-2.20**
Social acceptance	2.48	1.301	2.96	1.123	-2.39*
Having friends in major	2.89	1.231	3.37	1.309	-2.27*
Lack of racial tensions	3.40	1.289	4.20	.951	-4.40*
Receiving grades I deserve	4.77	.571	4.62	.791	1.31**
Receiving help in selecting courses	3.61	1.192	4.29	.859	-4.05 **
<u>Current Grades</u>					
Overall GPA (c)	2.19	.871	2.22	1.180	- .18
Math (d)	2.82	.680	2.58	.676	2.07**
Natural science	2.72	.665	2.49	.601	2.25*
Humanities	3.20	.565	3.03	.748	1.50
Behavioral sciences	3.27	.516	3.03	.597	2.48**
Music	3.36	.641	3.00	.707	3.00**
Foreign languages	3.20	.613	3.05	.756	1.20

Table 16 (continued)

Item	Gifted (n=98)		Non-Gifted (n=58)		t-Test
	Mean	SD	Mean	SD	
<u>Importance of Grades</u> (b)					
Earning all A's	2.95	1.116	3.68	1.353	-3.46**
Maintaining good grades	4.57	.740	4.72	.670	-1.28
Earning all A's in major	3.12	1.060	4.01	1.147	-4.78**

(a) = Satisfaction scale: 1 = least satisfied to 5 = most satisfied

(b) = Importance scale: 1 = less important to 5 = most important

(c) = Overall gpa: 1 = below 2.80; 2 = 2.80 to 3.00; 3 = 3.01 to 3.50; 4 = 3.51 to 4.00; 5 = 4.01 or above

(d) = Grading scale: 4 = A; 3 = B; 2 = C; 1 = D; 0 = F

* $p \leq .05$

** $p \leq .01$

and interactions with faculty. As the Table shows, statistically significant differences were found for the variable "satisfaction with faculty". The gifted students reported being more satisfied with faculty than the non-gifted ($\bar{X} = 3.56$ to $\bar{X} = 3.25$, $p \leq .01$). However, they were less likely than the non-gifted to indicate that having faculty interested in their well-being was important to them ($\bar{X} = 4.03$ to $\bar{X} = 4.39$, $p \leq .01$).

The gifted were significantly less satisfied than the non-gifted with other students at their institutions ($\bar{X} =$

2.73 to $\bar{X} = 3.10$, $p \leq .01$). Similarly, the gifted placed less importance than the non-gifted group on black student involvement ($\bar{X} = 3.77$ to $\bar{X} = 4.15$, $p \leq .01$); social acceptance ($\bar{X} = 2.48$ to $\bar{X} = 2.96$, $p \leq .05$); having friends in their majors ($\bar{X} = 2.89$ to $\bar{X} = 3.37$, $p \leq .05$); lack of racial tensions at their institutions ($\bar{X} = 3.40$ to $\bar{X} = 4.20$, $p \leq .05$) and receiving help in selecting courses ($\bar{X} = 3.61$ to $\bar{X} = 4.29$, $p \leq .01$). At this juncture, the present study agrees with the findings of Arnold (1993) who suggested that high achieving and academically talented minority students are less likely to focus attention on social relations.

The gifted students were significantly more likely to place importance on receiving the grades they deserved ($\bar{X} = 4.77$ to $\bar{X} = 4.62$, $p \leq .01$). However, they placed less importance on earning all 'A' grades ($\bar{X} = 2.95$ to $\bar{X} = 3.68$, $p \leq .01$) and earning all 'A' grades in their majors ($\bar{X} = 3.12$ to $\bar{X} = 4.01$, $p \leq .01$) than the non-gifted group. The current grades in subject areas also revealed statistically significant differences. Respondents reported their current subject area grades which were based on a 4.0 grading system: 4 = A, 3 = B, 2 = C, 1 = D and 0 = F. Compared to the non-gifted students, the gifted received higher grades in math ($\bar{X} = 2.82$ to $\bar{X} = 2.58$, $p \leq .01$); natural sciences ($\bar{X} = 2.72$ to $\bar{X} = 2.49$, $p \leq .05$); behavioral sciences ($\bar{X} = 3.27$ to $\bar{X} = 3.03$, $p \leq .01$) and music ($\bar{X} = 3.26$ to $\bar{X} = 3.00$, $p \leq .01$). Although the two groups were about equal in terms of

overall grade point averages ($\bar{X} = 2.19$ and $\bar{X} = 2.22$), the college grades for four of six individual subject areas were significantly higher for the gifted.

A Chi-Square analysis was computed for variables related to student contact with mentors, faculty and counselors. Table 17 reveals statistically significant differences for five of eight variables in this category. Significantly more of the gifted students than the non-gifted students indicated having faculty mentors (32% to 19%, $X^2 = 4.019$, $p \leq .01$) and other mentors (48% to 18%, $X^2 = 5.369$, $p \leq .01$). The results show that significantly more of the gifted students indicated that their mentors were of the same gender (34% to 18%, $X^2 = 5.050$, $p \leq .01$).

Although statistically significant, the groups were about equal in terms of faculty initiating contact with them when they had problems (37% to 38%, $X^2 = .007$, $p \leq .05$). Finally, significantly more of the gifted than the non-gifted indicated that their counselors initiated contact with them when there is a problem (40% to 24%, $X^2 = 4.227$, $p \leq .01$). Overall, the results confirm that both gifted and non-gifted students take advantage of additional help from faculty and counselors.

In sum, more of the gifted students have faculty or other mentors during college. Compared to the non-gifted group, the current college gpa's for the gifted respondents were lower. Also, the gifted group had not maintained the

Table 17

Chi-Square Test Results for Selected Undergraduate Experience Variables Between Gifted and Non-Gifted Respondents

Item	Gifted (n=94)				Non-Gifted (n=58)				Chi-Square
	Yes	%	No.	%	Yes	%	No.	%	
Faculty mentor	32	34	62	66	11	19	47	81	4.019**
Other mentor	48	52	45	48	18	32	38	68	5.369**
Mentor of own race	48	70	21	30	19	79	5	21	.815
Mentor of own gender	34	49	36	51	18	75	6	25	5.050**
Faculty initiates contact with student	35	37	59	63	22	38	36	62	.007*
Student initiates contact with faculty	68	72	26	28	48	83	10	17	2.150
Counselor initiates contact with student	38	40	56	60	14	24	44	76	4.227**
Student initiates contact with counselor	64	68	30	32	38	66	20	34	.107

* $p \leq .05$ ** $p \leq .01$

high gpa's they had earned in high school. The gifted students were more satisfied with institutional factors than the non-gifted group and they placed less importance on earning 'A' grades in college. Although the students in this study have had positive college experiences, the status of their academic performance needs further investigation.

The null hypothesis that there will be no statistically significant differences between the groups on selected undergraduate experience variables is rejected.

Research Question #4. What are the postgraduate plans for gifted and non-gifted black college students?

Students were asked about their plans to enroll in graduate school and the circumstances surrounding those plans. Specifically, this study explored postgraduate plans regarding graduate and professional school and career choices of gifted and non-gifted students. Table 18 displays the results of selected postgraduate plans. When asked about when they made the decision about graduate school, over twice the number of gifted students had made the decision that they would attend graduate school before enrolling in college (53% to 23%). Considerably more of the non-gifted group made such decisions in their junior year of college (34% to 8%). These findings were expected for the gifted group since many had participated in gifted and talented programs and were high school honors students. Many gifted and talented programs provide students with

career counseling and college preparatory instruction (Olszewski & Scott, 1992).

Both gifted and non-gifted students were similar in terms of the highest degree they hoped to earn. Both groups had hoped to earn doctoral degrees (37% and 36%); and 30% of the gifted and 22% of the non-gifted had hoped to earn professional degrees in careers such as law or medicine.

Students were also asked about obstacles that might prevent them from carrying out their plans to attend graduate school. As Table 19 shows, the groups were about equal in their beliefs that not "being able to afford graduate school" might prevent their attendance (59% gifted to 57% non-gifted). These findings regarding affordability might relate to financial considerations such as the availability of grants or student unwillingness to take out loans. Brazziel (1988) and also Weiler (1993) pointed out that a major deterrent to graduate school enrollment is that many students want to avoid excessive financial debt upon completion of their studies. However, Weiler also noted that students who actually enroll are most likely those who had earned relatively good grades in college.

Table 18

Postgraduate Plans of Respondents (n=152)

Variable	Gifted (n=94)		Non-Gifted (n=58)	
	N	%	N	%
Decision about graduate school was before college enrollment	46	53	11	23
Decision about graduate school made in junior year of college	7	8	16	34
Hope to earn doctorate degree	34	37	21	36
Hope to earn professional degree	28	30	13	22
Perceive affordability as obstacle to graduate school	55	61	33	62
Perceive tight job market as obstacle to career	60	64	27	47
Perceive lack of advanced degree as obstacle to career	10	11	16	28

Table 19

Respondent Views of Obstacles to Graduate School Plans

Item	All (n=152)		Gifted (n=94)		Non-Gifted (n=58)	
	N	%	N	%	N	%
Affordability	88	58	55	59	33	57
Graduate Exam Scores	51	34	33	35	18	31
Grades	48	32	33	35	15	26
Change of Plans	47	31	30	32	17	29
Location	15	10	9	10	6	10

The results also show that slightly more of the gifted respondents believed their grades might prevent them from attending graduate school (35% to 26%). Both groups were similar in terms of graduate exam scores (35% to 31%) or whether they may have a change in plans (32% to 29%) about graduate school. Centra (1980) found that student grades during the last two undergraduate years and graduate exam scores were good predictors of graduate school enrollment for minorities. Weiler (1993) noted that for minority students another major deterrent to graduate school enrollment was that many students change their minds about graduate school during the course of the undergraduate experience. Lastly, the location of a graduate school did not seem to be perceived as a factor which would prevent the

students from carrying out graduate school plans (10% to 10%). Overall, the results suggest that the majority of the respondents (88%) believe that affording graduate school would prevent them from carrying out their plans.

When items that pertained to a student's motivations to attend graduate school were combined in a factor analysis, more of the non-gifted students were motivated by the financial stability ($\bar{X} = 20.17$ to $\bar{X} = 18.90$) and the prestige ($\bar{X} = 10.63$ to $\bar{X} = 9.37$) graduate school would provide them than the gifted group. On the other hand, students in the gifted group were motivated more by what they believed to be contributions to their communities, or philanthropic motivations ($\bar{X} = 13.07$ to $\bar{X} = 12.39$) (see Table 20).

Table 21 presents the results of the importance the students placed on attending particular types of graduate schools. As the table shows, the gifted students placed significantly greater importance on graduate schools being less competitive than their current institutions ($\bar{X} = 2.01$ to $\bar{X} = 1.68$); and the non-gifted placed greater importance on graduate schools being more competitive ($\bar{X} = 3.22$ to $\bar{X} = 2.56$). These findings were not unexpected, but they raise questions regarding the perceptions students may have about competition. This researcher suspects that the gifted students, having been challenged, for the most part, all of their academic careers, may not be willing to challenge

Table 20

T-Test Results for Gifted and Non-Gifted RespondentsMotivation to Enroll in Graduate School

Item	Gifted (n=94)		Non-Gifted (n=58)		t-Test
	Mean	SD	Mean	SD	
Importance of grad school (a)	25.10	5.42	26.10	5.24	-1.04
Importance of financial stability (b)	18.90	3.33	20.17	3.63	-2.11**
Philanthropic motivations (c)	13.07	1.99	12.39	1.88	2.11**
Motivation is prestige (d)	9.37	3.22	10.63	3.19	-2.36**

Scale Ranges: (a) = 7 to 35; (b) = 6 to 30;
(c) = 3 to 15; (d) = 3 to 15

** $p \leq .01$

themselves at the same level they had in the past.

Table 21 also presents results of the importance the students place on entering particular careers. Again, compared to the gifted students, the non-gifted group placed significantly greater importance on being financially rewarded, being promoted quickly, being nationally or internationally renowned, receiving the prestige a particular career might offer and living a comfortable lifestyle. On the other hand, the gifted students placed greater importance on what family members expected and their

Table 21

t-Test Results of Postgraduate Plans

Item	Gifted (n = 94)		Non-Gifted (n = 58)		t-Value
	Mean	SD	Mean	SD	
1. Graduate school more competitive than undergraduate school	2.56	1.35	3.22	1.10	-3.04*
2. Graduate school less competitive than undergraduate school	2.01	1.11	1.68	.69	2.08*
3. Family member expects a particular career	1.81	1.18	1.46	.66	2.37*
4. Will enter a career that has great financial rewards	3.24	1.05	3.87	1.14	-3.43*
5. Will enter career where I can get promoted quickly	3.15	1.12	3.58	1.02	-2.39*
6. Interested in becoming nationally or internationally renowned	2.55	1.30	3.08	1.31	-2.44*
7. Interested in a prestigious career	3.17	1.33	3.84	1.08	-3.40*
8. Interested in a comfortable life style	4.19	.94	4.50	.80	-2.16*
9. Interested in being a leader in my community	4.13	.94	3.72	1.03	2.47*

* $p \leq .05$

1 = Very Unimportant to 5 = Very Important

interests in the community.

The findings in Table 22 show that more students in the gifted group believed the "tight job market" might hinder their entering a career after college (64% to 47%); and more of the non-gifted group believed that "lacking an advanced degree" would be an obstacle to entering a career (28% to 11%). These results were expected since many more of the non-gifted group had not planned to enroll in graduate school.

Table 22

Respondent Views of Obstacles to Postgraduate Career Plans

Item	All (n=152)		Gifted (n=94)		Non-Gifted (n=58)	
	N	%	N	%	N	%
Tight job market	87	57	60	64	27	47
Lack work-related experience	41	27	31	33	10	17
Race-related issues	25	16	16	17	9	16
Location of work	21	14	11	12	10	17
Lack advanced degree	26	17	10	11	16	28

Also, students were asked if they knew what careers they hoped to enter and, if so, to indicate what those careers would be. Although a wide range of careers in the social and behavioral sciences was distributed across both groups, five career choices had the highest frequencies for both groups. These were careers in Engineering, Law,

Medicine, Education and Business.

Table 23 presents the results of career decisions for the gifted and non-gifted students. Both groups indicated that they knew what career they had hoped to enter. Comparisons of career choices revealed that more of the non-gifted students planned to enter the behavioral and social sciences than the gifted group (63% to 42%). Except in the category of careers in Business, more gifted students, than non-gifted, reported that they would seek careers in Engineering, Law, Medicine and Education. These findings were consistent with recent reports on the career choices of African-American college graduates (National Center for Education Statistics, 1993; Otuya, 1994).

Hypothesis #4. Research Question #8 asks whether there are significant differences in the postgraduate plans between gifted and non-gifted black college students. Chi-Square and T-tests of significance were computed to test Hypothesis #4 that there will be no statistically significant differences between the gifted and non-gifted groups on selected variables related to postgraduate plans.

Combined scaled items that relate to student motivation to attend graduate school revealed statistically significant differences. The results shown in Table 20 indicate that significantly more of the non-gifted than the gifted are motivated to attend graduate school because of financial stability factors such as being financially successful or

Table 23

Summary of Career Choices for Gifted and Non-GiftedRespondents

	Gifted (n=94)		Non-Gifted (n=58)	
	<u>N</u>	%	<u>N</u>	%
Career Interests Known	77	82	48	83
Career				
Social & Behavioral Sciences	40	42	36	63
Engineering	10	11	3	5
Law	8	9	2	3
Education	8	9	3	5
Medicine	7	7	2	3
Business	3	3	4	7
Missing	18	19	8	14

owning a house or property ($\bar{X} = 20.17$ to $\bar{X} = 18.90$, $p \leq .01$). The non-gifted group in contrast to the gifted group places more value on factors such as having a prestigious job or career and being known as an expert in a chosen field ($\bar{X} = 10.63$ to $\bar{X} = 9.37$, $p \leq .01$). On the other hand, statistically significant differences were found for combined factors relevant to philanthropic motivations to attend graduate school. For instance, the gifted group placed greater importance on "making a contribution to society", "being able to give their children better

opportunities" and "working to correct social and economic inequities" than the non-gifted group ($\bar{X} = 13.07$ to $\bar{X} = 12.39$, $p \leq .01$).

Clearly, motivations to enroll in graduate school differ for the two groups. Perhaps gifted students are less attracted to prestige factors because earlier experiences such as participating in gifted and talented programs have been somewhat prestigious for them. Likewise, it is possible that some students may not have experienced a great deal of financial instability in their home lives and thus they may be less likely motivated by the financial rewards of graduate school. Similarly, it is likely that the graduate school plans of the gifted students described in this study might be motivated by factors such as returning to their communities as success stories. Finally, it is possible that factors such as having learned not to stand out among one's peers has taught many African-American gifted children to avoid bringing attention to themselves (Lindstrom & VanSant, 1986; Passow, 1972).

Table 21 displays results of factors relevant to the importance placed on selecting a graduate school and a career. As the data illustrate, the non-gifted group placed significantly greater importance on selecting a graduate school more competitive than their current undergraduate institutions than the gifted ($\bar{X} = 3.22$ to $\bar{X} = 2.56$, $p \leq .05$). In contrast, the gifted students placed significantly

greater importance on selecting a graduate school less competitive than their current undergraduate institutions ($\bar{X} = 2.01$ to $\bar{X} = 1.68$, $p \leq .05$). This researcher believes that differences in the competitive attitudes of the groups are associated with their current independent status. As they are now college juniors and seniors, probably separated from the directives of parents, teachers and counselors, the students may feel better qualified to select graduate schools which complement their social, academic and personal interests. On the other hand, the gifted students in this study may also want to select less competitive graduate institutions because of their current grades. Additionally, because the majority of the gifted were attending Research I institutions of higher education, they may perceive the education evident at these institutions as representing the highest level of competitiveness.

Statistically significant differences were found for the importance students placed on factors associated with the careers they hoped to enter. Table 21 also indicates that the gifted students placed significantly greater importance on being leaders in their communities than the non-gifted ($\bar{X} = 4.13$ to $\bar{X} = 3.72$, $p \leq .05$). Although the means for the gifted were higher and statistically significant, both groups placed little importance on entering careers family members expected them to enter ($\bar{X} = 1.81$ to $\bar{X} = 1.46$, $p \leq .05$). However, the non-gifted

students placed significantly greater importance on entering a career for its financial rewards ($\bar{X} = 3.87$ to $\bar{X} = 3.24$, $p \leq .05$); for getting promoted quickly ($\bar{X} = 3.58$ to $\bar{X} = 3.15$, $p \leq .05$); for becoming nationally or internationally renowned ($\bar{X} = 3.08$ to $\bar{X} = 2.55$, $p \leq .05$); for the prestige of the career ($\bar{X} = 3.84$ to $\bar{X} = 3.17$, $p \leq .05$); and for the comfortable lifestyle a particular career would offer ($\bar{X} = 4.50$ to $\bar{X} = 4.19$, $p \leq .05$).

A Chi-square analysis was computed for differences in selected postgraduate plans for the gifted and non-gifted students in the study. As Table 24 reveals, 93% of the students in the gifted group had plans to enroll in graduate school compared to 81% of the non-gifted ($\chi^2 = 4.55$, $p \leq .05$). For the item, "when the decision was made to enroll in graduate school", statistically significant differences were found for the combined choices. Significantly more of the gifted students indicated that the decision to enroll in graduate school was made before college than the non-gifted group (53% to 23%, $\chi^2 = 18.60$, $p \leq .05$). Although both groups planned to enroll in graduate school, perhaps as a result of early academic enrichment opportunities, the gifted students were in a better position to learn early on about graduate school entry requirements and the requirements of entering particular careers. Essentially, the non-gifted group made decisions about whether they will enroll in graduate school much later than the gifted ($\bar{X} =$

3.02 to $\bar{X} = 2.10$, $p \leq .05$).

Statistically significant differences were also found for obstacles that might interfere with career choices. A Chi-square analysis revealed statistically significant differences for variables related to possible career obstacles. As Table 25 indicates, significantly more of the gifted students than the non-gifted indicated a tight job market as an obstacle (64% to 47%, $X^2 = 4.37$, $p \leq .01$). However, more of the non-gifted group than the gifted indicated that lacking an advanced degree would be an obstacle to entering a career (28% to 11%, $X^2 = 7.10$, $p \leq .01$). Previous discussions indicated that many more of the gifted students planned to enroll in graduate school than the non-gifted (53% to 23%). These results show that although the non-gifted hoped to enter particular careers, they also realize that lacking an advanced degree could prevent their entrance. On the other hand, the gifted students hold realistic perceptions regarding possible circumstances, such as a tight job market, that might interfere with their career plans.

In sum, gifted students made decisions about graduate school enrollment much earlier than the non-gifted group. Although both groups hoped to earn doctorates and professional degrees, they both agreed that affordability of graduate education would be an obstacle for them. The postgraduate motivations for the two groups differed. The

Table 24

Chi-Square Test Results for Selected Postgraduate Plans Between Gifted and Non-Gifted Respondents

Item	Gifted (n=94)				Non-Gifted (n=58)				Chi-Square
	Yes	%	No.	%	Yes	%	No.	%	
Plans for graduate school?	87	93	7	7	47	81	11	19	4.55*
<u>When Decision Was Made</u>									
Before college	46	53	41	47	11	23	36	77	18.60*
Freshman year	11	13	76	87	5	11	42	89	
Sophomore year	14	16	73	84	9	19	38	81	
Junior year	7	8	80	92	16	34	31	66	
Senior year	9	10	78	90	6	13	41	87	
<u>Highest Degree Hope to Earn</u>									
Bachelors	3	3	88	97	7	13	48	87	5.19
Masters	26	29	65	71	14	26	41	74	
Doctorate	34	38	57	62	21	38	34	62	
<u>Professional (Medicine, Law, Dentistry)</u>									
	28	31	63	69	13	24	42	76	

* $p \leq .05$

Table 25

Chi-Square Test Results for Variables Related to Obstacles to Career Between Gifted and Non-Gifted Respondents

Item	Yes	Gifted (n=94)		%	%	Non-Gifted (n=58)		%	Chi-Square
		No.	%			Yes	No.		
Tight job market	60	64	34	36	27	47	31	53	4.37**
Lack advanced degree	10	11	83	90	16	28	42	72	7.10**
Lack work-related experience	31	33	62	67	21	36	37	64	.13
Location of work	11	12	83	88	10	17	48	83	.92
College related experience	3	3	90	97	6	10	52	90	3.22
Race-related issues	16	17	77	83	9	16	49	85	.67

**p ≤ .01

gifted seemed motivated by a sense of responsibility to their communities and what the family expected of them. On the other hand, the non-gifted students' motivations for graduate school and careers seemed to be based on the students' insight about economic upward mobility. This finding was expected since the majority of the students come from lower socioeconomic status families. The two groups were about equal in their interest in professional careers. The results obtained on the careers they hope to enter are consistent with research findings related to the graduate school choices of black college students (Brazziel, 1988; National Center for Education Statistics, 1993; Otuya, 1994). A follow-up study that documents comparisons between the groups in terms of when they actually enrolled in graduate school and the careers they entered is suggested. This researcher is in agreement with Weiler (1993) who reported that the direct effects of the undergraduate experience combined with indirect effects such as family socioeconomic status and prior academic experiences may explain the postgraduate choices of black college and university students.

The null Hypothesis #4 that there will be no statistically significant differences between the two groups for postgraduate plans variables is rejected.

Summary

This chapter has presented a profile of two groups of African-American college and university students. One group consists of 94 students identified as gifted and the other consists of 58 students who are academically talented but not identified in this research as gifted. Also presented are results related to four categories of variables that include pre-college academic experiences, family characteristics, undergraduate experiences and postgraduate plans for the two groups. Comparisons were made for differences between the groups and statistically significant differences were found for all four sets of variables. The following chapter presents a summary of the study and its major findings, conclusions based on the findings and recommendations for both future research and policy in institutions of higher education.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter consists of four sections. The first section contains a concise summary of the research questions, hypotheses, methodology and results of the study. The second section presents major conclusions based on the study's findings. The third section discusses the study's limitations; and the final section provides suggested recommendations for institutions of higher education and for future research based on this study.

Summary

Overview of the Study

This study was designed to identify and compare variables related to the pre-college academic experiences, family characteristics, undergraduate experiences and postgraduate plans of gifted and non-gifted African-American college and university students. The four sets of variables chosen for investigation were those identified in a comprehensive review of the literature primarily related to gifted and talented students and the undergraduate experiences of African-Americans.

Eight research questions were developed to assist in identifying and comparing differences between gifted and

non-gifted African American students currently enrolled in six institutions of higher education in the state of Illinois. The first four research questions sought to identify and compare the pre-college academic experiences, family characteristics, undergraduate experiences and postgraduate plans of the two groups under study. The final four research questions sought to identify significant differences between the groups on each of the four major sets of variables.

Four research hypotheses were generated from the research questions. Each hypothesis, expressed in the null form, stated that no statistically significant differences would be found between gifted and non-gifted African-American college and university students on each of the four sets of variables.

Instrumentation

The Personal and Family Background Questionnaire prepared by the researcher was included to test Hypotheses #1 and #2 and to generate data associated with circumstances regarding each student's family background and pre-college academic experiences. This 25-item self-report questionnaire also assisted the researcher in separating respondents into gifted and non-gifted categories for the purpose of this study.

The Postgraduate Plans and Undergraduate Experience Questionnaire was used in the study to test Hypotheses #3

and #4 and to collect data involving each respondent's postgraduate plans and undergraduate experiences. This 33-item self-report instrument was developed by the researcher and primarily assesses student opinion, attitudes and motivations. Several of the items related to career motivations were modified versions of items from a survey used by the Center for Talent Development at Northwestern University, Evanston, Illinois. Additionally, several items were taken from Jacqueline Fleming's (1985) research on the undergraduate experiences of black college students.

The third instrument used in this study was the widely used Family Environment Scale (FES) developed by Moos and Moos (1981). It was also included to test Hypothesis #2, which relates to family background characteristics of the respondents. The FES is a standardized, 90-item survey which uses a true-false format that identifies perceptions of family environment. The FES manual provides mean scores of a normed sample of 454 African-Americans on 10 subscales: (a) cohesion, (b) expressiveness, (c) conflict, (d) achievement orientation, (e) independence, (f) intellectual-cultural orientation, (g) active-recreational, (h) moral-religious, (i) organization, and (j) control. The FES was used to compare gifted and non-gifted respondents to the normed group and to each other.

Data Collection

This study was conducted during the spring semester of the 1993-1994 academic year. College and university administrators at six Illinois institutions agreed to assist the researcher in identifying currently enrolled African-American juniors and seniors at their respective institutions. A total of 173 African-American, full-time undergraduate students completed and returned a packet of three questionnaires to the administrators at each of the six institutions. Of the 173 returned questionnaires, 152 were usable and included in the study. This study was carried out with 112 female and 40 male respondents. These respondents consisted of 79 juniors and 73 seniors.

The completed questionnaires were returned to the researcher who then separated each into gifted or non-gifted categories using a set of nine criteria established for the purpose of this study. These nine criteria represent indices of giftedness documented and identified in the literature which pertains to gifted and talented students. As an initial basis for classifying students in either the gifted or non-gifted category, respondents meeting one or more of the nine criteria were classified as gifted. Additionally, the researcher's subjective assessment of each respondent was also utilized in finally placing students into either the gifted or non-gifted category. For instance, when apparent discrepancies were present in a

student's self-report on the nine criteria, the researcher would examine the responses more closely before deciding to include him or her in the gifted category. Of the 152 respondents, 94 were classified by the researcher as gifted and 58 as non-gifted. The gifted group consisted of 67 females, 27 males including 48 seniors and 46 juniors. Fifty-eight respondents were placed into the non-gifted category; they consisted of 45 females and 13 males including 27 juniors and 31 seniors.

Data Analysis

An ex-post facto descriptive research design was used in the study. The data from the three questionnaires were statistically analyzed using the Statistical Package for the Social Sciences (SPSS, Inc, 1990). Descriptive statistics were computed for all four of the major types of variables: (a) pre-college academic experiences, (b) family characteristics, (c) undergraduate experiences, and (c) postgraduate plans.

A series of t-tests were used to test the hypotheses regarding differences between gifted and non-gifted respondents for the four major categories of variables. A series of Chi-square tests of statistical significance were also used for categorical variables.

Findings

The results of this study found statistically significant differences for Hypothesis #1, which stated that there will be no statistically significant differences in prior academic achievements for gifted and non-gifted African-American students. The gifted sample had significantly higher high school grade point averages.

Statistically significant differences were also found for Hypothesis #2, which stated that there will be no statistically significant differences between gifted and non-gifted African-American students on family characteristics variables. The results of the study found that compared to the non-gifted respondents, mothers of the gifted were better educated, the student's family income just prior to enrollment in college was higher for the gifted; and significantly more of the gifted were from families with two or more siblings. Additionally, significantly more of the gifted than the non-gifted had father's who were employed either full or part-time and lived with both parents; significantly more of the non-gifted lived only with their mothers.

The study also found statistically significant differences for Hypothesis #3, which stated that there will be no statistically significant differences between gifted and non-gifted students for variables related to undergraduate experiences. Significantly more of the gifted

than the non-gifted respondents reported having faculty and other mentors, and mentors of their own gender.

Additionally, more of the gifted than non-gifted respondents reported that faculty and counselors initiated contact with them when there was a problem.

Significantly more of the gifted than the non-gifted respondents were satisfied with their institution's faculty, yet they were less likely to indicate that having faculty interested in their well being was important to them. The gifted students were less satisfied with student peers at their institutions and placed less importance than the non-gifted on factors such as black student involvement, social acceptance, having friends in their majors, a lack of racial tensions and receiving help in selecting courses.

The gifted respondents placed greater importance than the non-gifted on receiving the grades they deserved and less importance on earning all 'A' grades, or on earning all 'A's in their majors. However, there were statistically significant differences in the respondents' current subject area grades. Compared to the non-gifted respondents, the gifted had higher grades in math, natural sciences, behavioral sciences and music.

And finally, there were statistically significant differences for Hypothesis #4, which stated that there will be no statistically significant differences in postgraduate plans for the gifted and non-gifted students. Significantly

more of the gifted than the non-gifted respondents reported they had plans for graduate school and had made such plans before enrolling in college. The gifted respondents were significantly more likely to say that they would attend a graduate school less competitive than their current institutions, enter careers family members expected them to enter and serve as leaders in their communities. On the other hand, significantly fewer of the non-gifted respondents planned to attend graduate schools less competitive than their current institutions. The non-gifted respondents were significantly more likely to enter careers that had great financial rewards, where they could get promoted quickly and enter a prestigious career. The non-gifted respondents were also significantly more likely to emphasize the importance of becoming nationally or internationally renowned and living a comfortable lifestyle, than the gifted.

Compared to the non-gifted respondents, the gifted were significantly less likely to place importance on financial stability, and they were less motivated by prestige factors in decision making concerning their postgraduate plans. The gifted respondents were motivated more by philanthropic factors, such as giving back to their communities. Finally, compared to the non-gifted, significantly more of the gifted believed that a tight job market might be an obstacle to entering a career; whereas, the non-gifted believed that

lacking an advanced degree would be an obstacle.

Conclusions

Findings from this study revealed that gifted and non-gifted African-American college and university students differ on a number of variables related to their pre-college academic experiences, family characteristics, undergraduate experiences and postgraduate plans. In general, the gifted group in this study exhibited characteristics very similar to other gifted students discussed in the literature on gifted and talented students. Further, the gifted and non-gifted students in this study are characteristically similar to high achieving African-American college and university students studied by other researchers (Allen, 1988a, 1988b, 1992; Arnold, 1993; Fleming, 1984, 1988). For instance, much of the research in the area of African-American college and university students has been intent on ascertaining similarities and differences in the undergraduate experiences of African-Americans enrolled in predominately white institutions to those attending historically black colleges and universities.

Prior Academic Experiences

In this study, students classified as gifted outperformed the non-gifted group on all **pre-college academic achievement** variables related to college board exams and grades. These results were expected and confirm that the prior academic experience variables used as criteria to

classify students as gifted were appropriate. Many of the gifted students in this study met three or more of the multiple criteria established for the purpose of this study. For instance, many had been recommended for gifted and talented programs by their school districts and had also been accelerated one or more grade levels during their early schooling. Although a large percentage of the non-gifted group had also taken high school honors courses, the statistically significant differences between the groups suggest that gifted students are certainly more likely to take such courses.

As stated in Chapter I, the literature on gifted and talented students essentially ends once the students are enrolled in college. Perhaps this study shows that identifying distinctive characteristics relevant to the pre-college academic experiences of black students will further contribute to the literature on undergraduate, graduate and career experiences of gifted black students.

Family Characteristics

The results also revealed that **family background characteristics** of the gifted African-American students in this study are similar to gifted students in general. For instance, in the first study to examine family socioeconomic characteristics of gifted black children, Jenkins (1943) noted that the educational and occupational levels of parents of gifted black and white students were very

similar. In a much later study, Frasier (1987) noted that although parent education and household income levels of the general population of gifted students are higher, black gifted students come from families of all socioeconomic levels. Also, unlike what is reported in the literature for gifted children in general, this study found that the mothers of the gifted black students were better educated than the fathers. On the other hand, similar to the general population of gifted students, the fathers of the gifted black students in this study were employed.

Since the mid-1960s many educational researchers have confirmed socioeconomic variance within families of gifted black students (Baldwin, Gear & Lucito, 1978; Bruch, 1971; Frasier, 1979; Gay, 1978; Richert, 1987; Sato, 1974; Serwatka, Deering & Stoddard, 1989). Although this study has also demonstrated a wide diversity of family incomes for all African-American respondents, the gifted among the respondents came from families with higher incomes. This study's results regarding family income and parent education for African-American college and university students will add to the literature of earlier findings regarding gifted blacks.

Education scholars have also researched differences in family characteristics related to the gifted student's home life. This study has found that significantly more of the gifted group come from homes in which both parents are

present. However, the assumption that two-parent home environments free up the nonworking mother for homemaking do not seem to be applicable for this sample of African-American gifted students (Van-Tassel-Baska, 1983).

The findings of this study indicate that both mothers and fathers of the gifted are employed outside the home either full or part-time. However, while more of the non-gifted respondents lived only with their mothers this fact does not imply that a strong relationship exists between single-parent homes and not being identified as gifted. What seems to be implied is that family income of students from single parent homes may not be sufficient to provide costly enrichment opportunities which contribute to higher levels of achievement among this study's population.

Undergraduate Experiences

The hypothesis stating that no statistically significant differences will be found for the undergraduate experiences of gifted and non-gifted black college students was not supported in this study. Although this study does not examine the relationship between the respondents' earlier (pre-college) and current satisfaction with faculty, one explanation for the significant differences among the two groups of respondents in undergraduate experiences might be related to this association. It is possible that there is a high correlation between gifted students' satisfaction with pre-college teachers (teachers trained to work with

gifted and talented students) and their satisfaction with their current undergraduate professors. For example, students who have experienced satisfying interactions with pre-college teachers who have been intellectually stimulating, supportive and positive may be more apt to perceive undergraduate professors in a similar manner. Another explanation for the significant differences between the two groups may be that gifted students may have more opportunities to interact with college and university faculty because faculty often gravitate towards academically talented students. Such student-faculty interactions may have positive effects on the experience gifted students have when seeking assistance from their undergraduate professors. On the other hand, students who have not experienced positive one-to-one interactions with their pre-college teachers may unfortunately perceive their undergraduate professors as unapproachable.

Although mentoring was not defined for the respondents in this study and various interpretations may have resulted, many more students among the gifted group believed faculty or others fulfilled mentoring roles. It is possible that gifted college students, because of their prior experiences with teachers of gifted and talented students or teachers of honors courses, will interpret any trusting relationship with faculty as mentoring. However, the literature notes that a major focus of many non-traditional gifted and

talented programs is to encourage students, faculty and counselors to form lasting mentoring relationships (Blackburn & Erickson, 1986; Frederickson, 1986; Kerr, 1986). For these reasons it is likely that faculty, counselors and others have learned to extend themselves to students whom they perceive to be enthusiastic learners and who exhibit higher level intellectual and critical thinking skills.

This study revealed that compared to the non-gifted students, the gifted were less likely to place importance on social acceptance or on whether their institution lacked racial tensions. It is possible that from a social standpoint, gifted black students have developed early habits of prioritizing academic over social concerns quite differently than non-gifted black students. These findings may also be consistent with Arnold's (1993) conclusions that high achieving minority undergraduates choose to cope with such concerns on an individual basis rather than making them central to their academic careers.

The finding that the gifted respondents were not achieving at the same high academic levels experienced before college was unexpected. In fact, the undergraduate gpa's of the gifted in this study were significantly lower than their high school gpa's. Also unexpected was the finding that the gifted respondents were less likely than the non-gifted to be concerned about receiving 'A' grades.

These findings support Allen's (1982) conclusion, that high achieving black students enrolled in predominately white institutions achieve at lower levels. One explanation for the apparent underachievement of gifted students at the undergraduate level may be related to the sudden level of increased competition unlike the pre-college years (Laycock, 1984).

Finally, the combined findings that the gifted students in this study focus less on achieving high grades and are achieving at lower levels as undergraduate students, suggest the need for new contributions to the literature concerning gifted and talented black students. The extensive review of the literature for this study indicates that pivotal in the lives of gifted and talented students are significant others who provided regular direction, attention and guidance. For example, most gifted and talented programs focus on developing the individual potential through individualized attention. Other gifted and talented programs have the means to provide gifted black students with financial assistance, continuous tutoring and one-on-one mentoring. Likewise, as the literature indicates and this study agrees, gifted black college students come from homes where parents are supportive, involved and encouraging of student achievement. However, the most current literature does not discuss the impact such on-going nurturing will have on later experiences of these students. The findings of this

study suggest the possibility that some earlier, although once positive experiences, may have indirect negative affects on the undergraduate experiences of black gifted students.

For instance, now separated from the directives and impositions of devoted and nurturing adults, it is possible that earlier habits such as setting aside time for homework and studying are not practiced by the students at the undergraduate level. Also noted in the study was the unexpected finding that only 1 of the 152 respondents indicated that he or she participated in his or her institution's honors programs. In sum, future research must investigate the direct and indirect affects early dependent relationships have on the undergraduate experiences for gifted black students. These considerations and findings suggest a need for undergraduate level interventions that distinctively focus on encouraging the continual academic excellence and outstanding performance of gifted black college and university students.

Postgraduate Plans

As with the student's undergraduate experiences, many of the statistically significant findings related to postgraduate plans may also involve the student's pre-college experiences. Significantly more of the gifted than the non-gifted students in this study hoped to attend graduate school and had made such decisions before entering

college. A review of the literature for this study discusses the importance of early pre-college and career advisement for gifted and talented students. The present study indicates that the pre-college experiences of a significant portion of the gifted students included exposure to individuals qualified to share information about graduate school options and possibilities. Nonetheless, it is interesting that as undergraduate juniors and seniors, fewer of the gifted than the non-gifted respondents placed a great deal of importance on attending graduate school. This finding raises concerns about whether the black students identified as "gifted" in this study will eventually attend graduate school. This concern also addresses an important issue Weiler (1993) raised in his study on the post-baccalaureate educational plans of minority high school students. Weiler found significant differences in the expected and actual enrollment of minority students into graduate school. Essentially, upon completion of high school, many of the students who had initially expected to attend graduate school changed their minds by the time they were seniors.

The present study also found that motivation to attend graduate school differed for the gifted and non-gifted groups. The motivations of the gifted respondents involved concerns such as making contributions to society, being leaders in their communities, or working to correct social

and economic inequities. This finding, described as philanthropic motivations in the study, is consistent with Arnold's (1993) findings that high achieving minority students perceive that their intellectual talents and abilities are of great value in their communities. In contrast, students not identified as gifted in this study are motivated more by factors such as being nationally or internationally renowned, being financially successful, living a comfortable lifestyle or owning a house or property. These important differences in the motivations to attend graduate school for gifted and non-gifted students emerged as distinguishing characteristics of black students enrolled at predominately white institutions of higher education.

The finding that gifted students in this study are more likely to enter careers that family members expect them to enter was expected and consistent with how they compared to the non-gifted on the FES cohesion subscale. Perhaps gifted students concede to the family's expectations about career choices out of a sense of duty or responsibility. For example, gifted black students may feel somewhat compelled to support the career preferences of parents whom they believe made financial sacrifices so that they could take advantage of educational enrichment opportunities.

Only following an examination of this study's results regarding the respondents' prior academic experiences,

family characteristics and undergraduate experiences was it expected that the gifted and non-gifted students would differ significantly on the type of graduate schools they hoped to enter. While gifted students hoped to attend graduate schools less competitive than their current institutions, the non-gifted hoped to attend more competitive graduate schools. It is possible that in responding to the question that addressed the preferred competitiveness of a graduate school choice, the students took into consideration how they were currently performing and the competitive aspects of their current institutions. Although the gifted students in this study were enrolled in all six of the participating institutions, 55% came from the two institutions with highly selective admissions requirements. It may be that the academic competitiveness qualities of these highly selective institutions played an important part in the gifted group's decision to attend less competitive institutions as graduate students. They may have perceived that these Research I institutions are already the most competitive. On the other hand, the non-gifted group may select more competitive graduate schools because of increased confidence gained from their positive academic experiences as undergraduates.

Also related to the students' postgraduate plans may be the indirect affects of the gifted students' pre-college experiences with teachers, parents and school counselors.

However, students are now more likely to base their decisions on factors relevant to the total undergraduate experience and less on what significant others expect of them.

Limitations of the Study

An important limitation of this study relates to the self-reported responses. Although the students were asked to provide accurate responses to all items from the three questionnaires, the researcher found discrepant information reported in a few of the individual cases. For example, in a few cases the SAT Verbal and Math scores did not total the reported combined SAT score. However, the employment of cross-checking the self-reported information improved the likelihood of entering accurate data that would lead to reliable analyses. Another limitation may involve some limited misclassification of students as gifted or non-gifted. However, the researchers's use of multiple "gifted" criteria to classify students into the gifted and non-gifted groups helped to improve the accuracy of categorizing students in one of the two categories.

Another limitation of this study is that the conclusions cannot be generalized to the population of all gifted black college and university students. This study was conducted with 152 African-American college and university junior and senior students who volunteered to complete the three questionnaires under unsupervised

conditions. Additionally, the results are based on self-reports which the researcher did not verify with school or other institutional officials. However, many of the results were statistically significant and perhaps with a much larger sample size, the findings could be generalized to all gifted black college and university students. Overall, this study's findings were important and highly consistent with the literature on gifted students in general, gifted black students, high achieving black college and university students, and the family background characteristics of gifted black students.

Recommendations for Future Research

This study is the first to include in one investigation, the pre-college academic experiences, family characteristics, undergraduate experiences and postgraduate plans of African-American gifted college and university students. The findings suggest that future research is needed to further explore how each of the four areas may predict actual graduate school enrollment among gifted black college and university students. The findings of this study also demonstrate that within institutions of higher education are black students who possess the potential to perform at exceptionally high levels and to enter careers that will utilize their talents and abilities to the fullest.

While basic research is important to collecting data

that will help to identify inherent characteristics of the population under study, applied research efforts that recommend direct interventions with gifted black students are needed at the undergraduate level. Also needed are longitudinal studies and databases for following gifted black students from the time they exhibit gifted characteristics or identified as gifted on into the postgraduate stages of their education and career choices. For example, it should be important for the higher education community to know that the academic performances of black gifted college and university students may decline during the undergraduate experience. This study demonstrated that as high school students the gifted students achieved higher gpa's than as undergraduate students; and, they also placed less importance on earning 'A' grades than the non-gifted group.

In sum, future research areas related to gifted African-American college and university students should include the following:

1. Educational researchers in higher education should consider submitting grant proposals to private and public foundations that support research on black gifted and talented students. Such efforts might incorporate strategies that identify gifted black undergraduates based on the prior academic experiences and achievements substantiated in the literature and documented in this

study.

2. Longitudinal research studies that utilize baseline data acquired from black gifted and talented students at the pre-college level are needed in higher education. Such data will allow researchers to (1) follow black gifted students throughout the undergraduate and graduate school years, (2) make contributions to the body of literature on gifted black college and university students, (3) collect data useful for prediction studies involving graduate school enrollment and career choices for gifted black students, and (4) provide their institutions with data to justify the creation of new programs or the modification of existing programs that support furthering the postgraduate aspirations of gifted black college and university students.

3. Qualitative research efforts that are based on principles of ethnography, grounded theory or naturalistic inquiries are needed to further understand underlying educational, social and cultural meanings of the academic aspirations of black gifted college and university students. For example, research methods such as in-depth interviews with gifted students and their parents; teachers, college professors, administrators and counselors might reveal realities not considered with quantitative research methods.

4. Finally, an important finding of this research concerns the competitive attributes among the gifted respondents: essentially, the gifted students indicated they

would consider less competitive graduate schools; and, compared to their non-gifted counterparts, they seemed less motivated to continue achieving at high academic levels. This researcher strongly suggests research that focuses on identifying factors relevant to competitive issues involving black gifted undergraduate students. For example, are there differences in the competitive behaviors of early-identified gifted and non-gifted black and non-black students? What changes occur in the competitive behaviors of gifted black students from the pre-college to the undergraduate years? What factors in the pre-college experiences, family background or undergraduate experiences contribute to increases or decreases in competitiveness among black gifted undergraduate students? Finally, do early-identified gifted and high achieving black students only compete during the pre-college years for reasons related to entering highly competitive institutions of higher education?

Recommendations for Institutions of Higher Education

The following recommendations are based on this research regarding gifted black college and university students.

1. In their efforts to establish a method of identifying and tracking first-year black gifted students, college and university administrators should incorporate (with other methods already in place), the multiple "gifted" criteria introduced in this study. Such efforts might

involve working with institutional research units in efforts to establish databases which will document baseline data on gifted black students' prior and current academic records.

2. Administrators should set aside funds or request budget lines for hiring trained counselors and advisors to work specifically with black gifted undergraduate students.

3. College and university faculty should organize and develop collaborative linkages with state agencies for the purpose of tracking gifted black students beyond high school.

4. Colleges and universities should implement policies which ensure that all students from exceptional educational backgrounds are included in honors programs. These efforts might involve creating opportunities for gifted black students to meet, socialize, collaborate and work on special projects with other high achieving students and faculty who are experienced with students of exceptionally high ability.

5. College and university departments should recruit faculty whose research and teaching interests include black/minority gifted and talented undergraduate students.

6. College and university counseling departments should monitor the academic progress and establish interventions that will encourage gifted black students to maintain high grade point averages and interest in graduate school and careers. Such interventions might include the following: (1) monitoring academic progress, (2) peer

counseling, (3) locating financial aid and graduate school fellowships, (4) providing assistance with developing coping strategies for confronting and overcoming obstacles (financial, home, community), and (5) providing assistance with clarifying, identifying and setting career and educational goals.

Gifted students do not cease being gifted once they are enrolled in institutions of higher education. This study has been an effort to identify inherent characteristics of a population of black students both prior to their becoming undergraduate students and as undergraduates. It has demonstrated that many black college and university students take with them to their campuses an array of similar personal, academic and familial experiences which would qualify them as gifted. The many variables examined in this study will provide the higher education community with much new information that relates to positive aspects of the African-American experience as achievers. While African-Americans make up only 10% (Otuya, 1994) of the total population of college and university students, this study reveals that many of these students possess qualities that should ensure their success throughout college and beyond. Unlike majority students, most African-American undergraduates, gifted and non-gifted alike, come from backgrounds that are socioeconomically lower. For this reason, much of the success of African-Americans beyond the

high school years will come from caring and focused teaching, research and service efforts of the higher education community.

APPENDIX A
POSTGRADUATE PLANS AND UNDERGRADUATE EXPERIENCE
QUESTIONNAIRE

Postgraduate Plans and Undergraduate
Experience Questionnaire

This questionnaire is designed to obtain data from African American college juniors and seniors regarding their undergraduate experiences and plans after college. Please answer all of the following questions truthfully as this will help determine the study's reliability. The questionnaire can be completed in thirty minutes. Thank you for your participation.

I. POSTGRADUATE and FUTURE PLANS:

The following questions pertain to your graduate/professional school and future plans. (Circle unless otherwise indicated)

1. Are you planning to enroll in graduate school or professional school (i.e. Law, Medicine)?

1 = yes 2 =no

- 1a. If your answer to the above is YES, when did you decide you were going to graduate school (circle one)?

- 1 before college
2 freshman year in college
3 sophomore year in college
4 junior year in college
5 senior year in college

2. What is the highest degree you hope to earn? (circle one).

- 1 Bachelors
2 Masters
3 Doctoral (Ph.D./Ed.D.)
4 Professional (medicine, law, dentistry, etc.)

3. For the following statements, please indicate the importance of each to you (circle).

- 1 = very unimportant (VU)
2 = somewhat unimportant (SU)
3 = important (I)
4 = somewhat important (SI)
5 = very important (VI)

VU	SU	I	SI	VI
1	2	3	4	5
(circle)				

- | | | | | | | |
|------|---|---|---|---|---|---|
| 3.1 | Enrolling in graduate school immediately after undergraduate school | 1 | 2 | 3 | 4 | 5 |
| 3.2 | Enrolling in graduate school within one year after undergraduate school | 1 | 2 | 3 | 4 | 5 |
| 3.3 | Enrolling in graduate school within two years after undergraduate school | 1 | 2 | 3 | 4 | 5 |
| 3.4 | Attending graduate school as a full-time student | 1 | 2 | 3 | 4 | 5 |
| 3.5 | Attending graduate school as a part-time student | 1 | 2 | 3 | 4 | 5 |
| 3.6 | Completing graduate school before I get married | 1 | 2 | 3 | 4 | 5 |
| 3.7 | Completing graduate school before I start a family | 1 | 2 | 3 | 4 | 5 |
| 3.8 | Applying to a graduate school more competitive than my undergraduate school | 1 | 2 | 3 | 4 | 5 |
| 3.9 | Applying to a graduate school less competitive than my undergraduate school | 1 | 2 | 3 | 4 | 5 |
| 3.10 | Applying to graduate school after I've saved money | 1 | 2 | 3 | 4 | 5 |
| 3.11 | Financing graduate school without student loans | 1 | 2 | 3 | 4 | 5 |
| 3.12 | Financing graduate school with employment | 1 | 2 | 3 | 4 | 5 |

4. Have you taken any of the following graduate exams (circle all that apply)?

- | | |
|---|-----------------------------|
| 1 | GRE |
| 2 | GMA |
| 3 | LSAT |
| 4 | MCAT |
| 5 | other, please specify _____ |
| 6 | none of the above |

5. Have you been accepted into graduate school?

1 = yes 2 = no

5a. If your answer to the above is YES, what degree and course of study will you pursue? _____

6. Which of the following obstacles might prevent you from carrying out a plan to attend graduate school? (Circle ALL that apply)

- 1 grades
- 2 affordability
- 3 location of graduate school
- 4 graduate exam scores
- 5 change in plans
- 6 other, please specify _____

II. CAREER PLANS:

The following questions pertain to your career plans. (circle one choice unless otherwise indicated):

7. Do you know what career you will enter?
1 = yes 2 = no

7a. If your answer to the above is YES, what career will you enter? _____

8. Which of the following obstacles might prevent you from carrying out your plans to enter this career (circle ALL that apply)?

- 1 tight job market
- 2 need advanced degree
- 3 lack work-related experience
- 4 location
- 5 lack college-related experience
- 6 race-related issues
- 7 other, please specify _____

9. For the following statements, please indicate the importance of each to you: (circle one choice for each statement)

- 1 = very unimportant (VU)
 2 = somewhat unimportant (SU)
 3 = important (I)
 4 = somewhat important (SI)
 5 = very important (VI)

	VU	SU	I	SI	VI
	1	2	3	4	5
		(circle)			
9.1 entering a career closely related to my under-graduate major	1	2	3	4	5
9.2 entering a career that has been my career interests all along	1	2	3	4	5
9.3 entering a career that a family member expects me to enter	1	2	3	4	5
9.4 entering a career that has great financial rewards	1	2	3	4	5
9.5 entering a career that gives me personal satisfaction	1	2	3	4	5
9.6 entering a career where I can get promoted quickly	1	2	3	4	5
9.7 entering a career that will not require graduate school	1	2	3	4	5
9.8 entering a career that will finance my graduate school education	1	2	3	4	5
9.9 Having a full-time career, marry and have no children	1	2	3	4	5
9.10 Having a full-time career and remain unmarried	1	2	3	4	5

III. MOTIVATIONS RELATED TO POSTGRADUATE PLANS:

10. For the following statements, please indicate the importance of each to you:(circle)

- 1 = very unimportant (VU)
 2 = somewhat unimportant (SU)
 3 = important (I)
 4 = somewhat important (SI)
 5 = very important (VI)

	VU	SU	I	SI	VI
	1	2	3	4	5
	(circle)				
10.1 Making a contribution to society	1	2	3	4	5
10.2 Being known as an expert in your chosen field	1	2	3	4	5
10.3 Being nationally internationally renowned	1	2	3	4	5
10.4 Having a prestigious job or career	1	2	3	4	5
10.5 Being financially successful	1	2	3	4	5
10.6 Having a secure job	1	2	3	4	5
10.7 Having a comfortable lifestyle	1	2	3	4	5
10.8 Owning my own house and property	1	2	3	4	5
10.9 Being a leader in my community	1	2	3	4	5
10.10 Being able to give my children better opportunities than I've had	1	2	3	4	5
10.11 Working to correct social and economic inequities	1	2	3	4	5

IV. COLLEGE INVOLVEMENT AND EXPERIENCES:

11. What is your college year classification (circle one)?

- 1 junior
 2 senior
 3 other, please specify _____

12. For each of the following subject areas, what is your average grade in college (use letter grades provided)?

00 =F 01 =D 02 =C 03 =B 04 =A

Subject	Grade Code
Mathematics	_____
Natural Sciences	_____
Humanities	_____
Behavioral/Social Science	_____
Foreign Language	_____

13. Using a standard 4.0 grading scale what is your current GPA (circle only one)?

- 1 below 2.8
 2 2.8 to 3.0
 3 3.0 to 3.5
 4 3.5 to 4.0
 5 4.0 or above

14. What is your undergraduate major?

15. Does your college or university have an honors program?

- 1 = yes 2 = no

16. Are you enrolled in your college's honors program?

- 1 = yes 2 = no

16a. If your answer to the above is YES, who recommended you for the college's honors program?

- 1 = high school counselor/teacher
 2 = college counselor/advisor
 3 = college friend
 4 = college professor
 5 = other

A Mentor is someone who is usually successfully employed in the career you hope to enter. He or she will have a special interest in your career objectives while sharing his or her knowledge, expertise, guidance and experience.

17. I have a faculty member as a mentor?

1 = yes 2 = no

18. Someone other than a college faculty member is my mentor?

1 = yes 2 = no

18a. If your answer to either 5 or 6 above is YES, what is your mentor's professional title? _____

19. My mentor is someone of my own racial background?

1 = yes 2 = no

20. My mentor is someone of my own gender?

1 = yes 2 = no

21. I initiate contact with faculty when I experience problems in a course?

1 = yes 2 = no

22. Faculty have initiated appointments with me if they were aware that I am having problems in a course?

1 = yes 2 = no

23. I initiate contact with my counselor/adviser when I am experiencing personal or academic problems?

1= yes 2 = no

24. Counselors initiate appointments with me if they are aware that I am having personal problems or my grades are slipping?

1= yes 2 = no

25. To what extent were you satisfied or dissatisfied with the following?

- 1 = Very Dissatisfied (VD)
 2 = Dissatisfied (D)
 3 = Neither Satisfied nor Dissatisfied (NDD)
 4 = Satisfied (S)
 5 = Very Satisfied (VS)

	VD	D	NDD	S	VS
	1	2	3	4	5
		(circle)			
25.1 the college's administration	1	2	3	4	5
25.2 the college's faculty	1	2	3	4	5
25.3 the quality of instruction at the college	1	2	3	4	5
25.4 other students at your college	1	2	3	4	5

V. COLLEGE EXPERIENCE:

26. Please rate the extent to which the following typical college experiences are important to you.

- 1 = very unimportant (VU)
 2 = somewhat unimportant (SU)
 3 = important (I)
 4 = somewhat important (SI)
 5 = very important (VI)

	VU	SU	I	SI	VI
	1	2	3	4	5
		(circle)			
26.1 learning, studying, class participation	1	2	3	4	5
26.2 studying in my major	1	2	3	4	5
26.3 black student involvement/organization	1	2	3	4	5
26.4 financial assistance	1	2	3	4	5
26.5 social acceptance	1	2	3	4	5
26.6 doing well in my courses	1	2	3	4	5
26.7 having friends in my major	1	2	3	4	5

26.8	lack of racial tensions	1	2	3	4	5
26.9	receiving the grades I deserve	1	2	3	4	5
26.10	faculty are competent, highly intellectual	1	2	3	4	5
26.11	faculty teaching styles	1	2	3	4	5
26.12	black students are encouraged	1	2	3	4	5
26.13	faculty interested in my welfare and provide encouragement	1	2	3	4	5
26.14	help I received in selecting courses	1	2	3	4	5

VI. ACADEMIC EFFORT

27. In what extracurricular activities do you actively participate?

_____	_____	_____
_____	_____	_____
_____	_____	_____

28. How many hours a week do you spend studying when it is not during final exam time (circle one)?

- 1 = 0-5 2 = 5-10 3 = 10-20 4 = 20-30
 5 = 30-40 6 = 40 or more

29. Where do you think you stand in relation to your fellow black students in general ability (circle one)?

- 1 same as them
 2 better than them
 3 below them

30. Where do you think you stand in relation to your fellow white students in general ability (circle one)?

- 1 same as them
 2 better than them
 3 below them

31. During the week of final exams, how many hours a week do you spend studying (circle one)?

1 = 0-5 2 = 5-10 3 = 10-20 4 = 20-30
5 = 30-40 6 = 40 or more

32. How important are the following to you (circle)?

1 = very unimportant (VU)
2 = somewhat unimportant (SU)
3 = important (I)
4 = somewhat important (SI)
5 = very important (VI)

	VU	SU	I	SI	VI
	(circle one)				
32.1 earning all A's	1	2	3	4	5
32.2 maintaining good grades	1	2	3	4	5
32.3 earning all A's in my major	1	2	3	4	5

33. Please briefly describe the college experiences you feel contributed most toward your postgraduate plans regarding a career or postgraduate education.

34. Please briefly describe the family background experiences during your precollege educational years that you feel contributed most toward your career or postgraduate educational plans.

APPENDIX B
PERSONAL AND FAMILY BACKGROUND QUESTIONNAIRE

Personal and Family Background Questionnaire

ID Code: _____

This questionnaire is deigned to obtain data from successful African American college juniors and seniors who may share similar educational and demographic backgrounds. Please answer all of the following questions truthfully as this will help determine the study's reliability. The questionnaire can be completed within five to ten minutes. Thank you for your participation.

Name of college or university:

I. PERSONAL DEMOGRAPHIC INFORMATION (Circle numbers unless otherwise indicated)

1. Birthdate _____ 19_____
 month day year
2. Where were you born? _____ / _____ / _____
 city state country
3. Gender(circle) 1 = male 2 = female
4. 1a Number of sisters living in your home? _____
- 2b Number of brothers living in your home? _____
- 3c What is your birth order (1 means first born of
 siblings)?
 (circle one) 1 2 3 4 5 6

II. PARENT DEMOGRAPHICS: Please answer the following for BOTH father, mother or guardian. A guardian is someone with whom you lived legally just prior to entering college.

5. Parents education level just prior to your entering college:

Check one (x) for both father and mother, whether present or absent in your home. A guardian is someone with whom you lived legally just prior to entering college.

Father	Mother	Guardian		
_____	_____	_____	1	Elementary School
_____	_____	_____	2	High School (diploma, GED)
_____	_____	_____	3	Two years of college or technical schl.
_____	_____	_____	4	Bachelors degree
_____	_____	_____	5	Masters or equivalent
_____	_____	_____	6	Advanced/profession (J.D./M.D./D.D./ etc.)
_____	_____	_____	7	Doctoral degree (Ph.D./Ed.D. etc.)

6. Parent employment status just prior to your entering college:

Check one (x) for (both father and mother), whether present or absent in your home. A guardian is someone with whom you lived legally just prior to entering college.

Father	Mother	Guardian		
_____	_____	_____	1	Employed full-time
_____	_____	_____	2	Employed part-time
_____	_____	_____	3	No work outside of home
_____	_____	_____	4	Retired

7. Your family living arrangement just prior to your entering college (circle one):

1 lived with mother and father (either biological or adopted)
 2 lived with mother only
 3 lived with father only
 4 lived with legal guardian
 5 lived with other, please specify _____

8. Annual family household income (family with whom you lived or guardian) just prior to your entering college (circle one):

- 1 less than \$20,000
- 2 20,000 to 30,000
- 3 30,000 to 40,000
- 4 40,000 to 50,000
- 5 50,000 to 60,000
- 6 over \$60,000

III. PRIMARY AND SECONDARY EDUCATION BACKGROUND:

9. In what year did you graduate from high school? 19_____

10. Using a standard 4.0 grading scale what was your high school GPA (circle one)?

- 1 below 2.8
- 2 2.8 to 3.0
- 3 3.0 to 3.5
- 4 3.5 to 4.0
- 5 4.0 or above

11. Was your high school (circle one):

1 = public 2 = private/independent

12. Where was your high school located?

_____ / _____ / _____
 city state country

13. Were you enrolled in honors courses in high school?

1 = yes 2 = no, go to question 14.

13a. If you answered YES to the above, please respond to the following (circle all that apply):

- 1 I was enrolled in all honors courses
- 2 I was enrolled in honors courses in science
- 3 I was enrolled in honors courses in math
- 4 I was enrolled in honors courses in English
- 5 I was enrolled in honors courses in history
- 6 Other, please specify _____

13b. If you answered YES to the above, please respond to the following (circle only one):

- 1 In my honors courses I was usually the only black/minority student
- 2 There were usually no more than five black/minority students in my honors courses
- 3 My honors courses were about 50/50 . . . black/minority to white students

14. Do you know your IQ score?

1 = yes 2 = no, go to question #15

14a. If your answer to the above is YES, please respond to the following:

- 1 What is your IQ score? _____
- 2 How did you come to know your IQ score? _____

15. Were you ever accelerated one or more grade levels in elementary or high school?

1 = yes 2 = no

16. Were you ever demoted a grade level in elementary or high school?

1 = yes 2 = no

17. Did you ever fail a course in high school?

1 = yes 2 = no, go to question 18.

17a. If your answer to the above is YES, was the course failed in any of the following areas? (circle ALL that apply)

- 1 math
- 2 science
- 3 humanities (e.g., English, Social Science, etc.)
- 4 physical education
- 5 other, please specify _____

18. Did your school or school district ever recommend that you participate in a gifted and talented program?

1 = yes 2 = no

19. Have you ever participated in a local, national or internationally recognized gifted or talented program or received recognition for your abilities and/or talent?

1 = yes 2 = no, go to question 20.

- 19a. If your answer to the above is YES, what was the name, location of the program and what criteria qualified you? _____

20. Have you ever participated in a program for artistically or creatively talented students?

1 = yes 2 = no, go to question 21.

- 20a. If your answer to the above is YES, please describe the program and your particular talent.

21. If your answer to either 19 or 20 above is YES, how long did you participate in the gifted program? (circle ONE)

1 less than one year
 2 1-2 years
 3 more than 2 years
 4 never participated

22. Were you designated a national merit scholar upon completing high school?

1 = yes 2 = no

23. Which college entrance exam(s) did you complete? (circle ONE)

1 Both SAT and ACT, continue with questions 24 and 25.
 2 SAT only, go to question 24.
 3 ACT only, go to question 25.

24. What was your overall college entrance SAT composite score?

24a. In what range was your Verbal SAT score (circle one)?

- 1 Above 750
- 2 Verbal 700 to 750
- 3 Verbal 650 to 700
- 4 Verbal 600 to 650
- 5 Verbal 550 to 600
- 6 Verbal 500 to 550
- 7 Verbal 450 to 500
- 8 Below 450

24b. In what range was your Math SAT score (circle one)?

- 1 Above 750
- 2 Math 700 to 750
- 3 Math 650 to 700
- 4 Math 600 to 650
- 5 Math 550 to 600
- 6 Math 500 to 550
- 7 Math 450 to 500
- 8 Below 450

25. What was your overall college entrance ACT composite score?

25a. In what range was your English ACT score (circle one)?

- 1 English 33-36
- 2 English 30-33
- 3 English 27-30
- 4 English 24-27
- 5 English 20-24
- 6 English 18-20
- 7 English below 18

25b. In what range was your Reading ACT score (circle one)?

- 1 Reading 33-36
- 2 Reading 30-33
- 3 Reading 27-30
- 4 Reading 24-27
- 5 Reading 20-24
- 6 Reading 18-20
- 7 Reading below 18

25c. In what range was your Math ACT score (circle one)?

- 1 Math 33-36
- 2 Math 30-33
- 3 Math 27-30
- 4 Math 24-27
- 5 Math 20-24
- 6 Math 18-20
- 7 Math below 18

APPENDIX C
FAMILY ENVIRONMENT SCALE (FES)

FAMILY ENVIRONMENT SCALE (FES)

There are 90 statements in this questionnaire. You are to decide which of these statements are true of your family and which are false. Circle the T if the statement is True or mostly true of the family with whom you lived just before you entered college. Circle the F if you think the statement is False or mostly false of the family with whom you lived just before you entered college.

You may feel statements are true for some family members and false for others. Mark T if the statement is True for most members. Mark F if the statement is False for most members. If the members are evenly divided, decide what is the stronger overall impression and answer accordingly.

We would like to know what your family seems like to you. So do not try to figure out how other members see your family, but do give your general impression of your family for each statement. (Moos & Moos, 1974)

- | | True | False | |
|-----|------|-------|---|
| 1. | T | F | Family members really help and support one another. |
| 2. | T | F | Family members often keep their feelings to themselves. |
| 3. | T | F | We fight a lot in our family. |
| 4. | T | F | We don't do things on our own very often in our family. |
| 5. | T | F | We feel it is important to be the best at whatever you do. |
| 6. | T | F | We often talk about political and social problems. |
| 7. | T | F | We spend most weekends and evenings at home. |
| 8. | T | F | Family members attend church, synagogue, or Sunday school fairly often. |
| 9. | T | F | Activities in our family are pretty carefully planned. |
| 10. | T | F | Family members are rarely ordered around. |
| 11. | T | F | We often seem to be killing time at home. |
| 12. | T | F | We say anything we want to around home. |
| 13. | T | F | Family members rarely become openly angry. |
| 14. | T | F | In our family, we are strongly encouraged to be independent. |
| 15. | T | F | Getting ahead in life is very important in our family. |
| 16. | T | F | We rarely go to lectures, plays or concerts. |

17. T F Friends often come over for dinner or to visit.
18. T F We don't say prayers in our family.
19. T F We are generally very neat and orderly.
20. T F There are few rules to follow in our family.
21. t F We put a lot of energy into what we do at home.
22. T F It's hard to "blow off steam" at home without upsetting somebody.
23. T F Family members sometimes get so angry they throw things around.
24. T F We think things out for ourselves in our family.
25. T F How much money a person makes is not very important to us.
26. T F Learning about new and different things is very important in our family.
27. T F Nobody in our family is active in sports, Little League, bowling, etc.
28. T F We often talk about the religious meaning of Christmas, Passover, or other holidays.
29. T F It's often hard to find things when you need them in our home.
30. T F There is one family member who makes most of the decisions.
31. T F There is a feeling of togetherness in our family.
32. T F We tell each other about our personal problems.
33. T F Family members hardly ever lose their tempers.
34. T F We come and go as we want to in our family.
35. T F We believe in competition and "may the best man win."
36. T F We are not that interested in cultural activities.
37. T F We often go to movies, sports, events, camping, etc.
38. T F We don't believe in heaven or hell.
39. T F Being on time is very important in our family.
40. T F There are set ways of doing things at home.
41. T F We rarely volunteer when something has to be done at home.
42. T F If we feel like doing something on the spur of the moment we often just pick up and go.
43. T F Family members often criticize each other.

44. T F There is very little privacy in our family.
45. T F We always strive to do things just a little better the next time.
46. T F We rarely have intellectual discussions.
47. T F Everyone in our family has a hobby or two.
48. T F Family members have strict ideas about what is right and wrong.
49. T F People change their minds often in our family.
50. T F There is a strong emphasis on following rules in our family.
51. T F Family members really back each other up.
52. T F Someone usually gets upset if you complain in our family.
53. T F Family members sometimes hit each other.
54. T F Family members almost always rely on themselves when a problem comes up.
55. T F Family members rarely worry about job promotion, school grades, etc.
56. T F Someone in our family plays a musical instrument.
57. T F Family members are not very involved in recreational activities outside work or school.
58. T F We believe there are some things you just have to take on faith.
59. T F Family members make sure their rooms are neat.
60. T F Everyone has an equal say in family decisions.
61. T F There is very little group spirit in our family.
62. T F Money and paying bills is openly talked about in our family.
63. T F If there's a disagreement in our family, we try hard to smooth things over and keep the peace.
64. T F Family members strongly encourage each other to stand up for their rights.
65. T F In our family, we don't try that hard to succeed.
66. T F Family members often go to the library.
67. T F Family members sometimes attend courses or take lessons for some hobby or interest (outside of school).
68. T F In our family each person has different ideas about what is right and wrong.
69. T F Each person's duties are clearly defined in our family.
70. T F We can do whatever we want to in our family.

71. T F We really get along well with each other.
72. T F We are usually careful about what we say to each other.
73. T F Family members often try to one-up or out-do each other.
74. T F It's hard to be by yourself without hurting someone's feelings in our household.
75. T F "Work before play" is the rule in our family.
76. T F Watching T.V. is more important than reading in our family.
77. T F Family members go out a lot.
78. T F The Bible is an important book in our home.
79. T F Money is not handled very carefully in our family.
80. T F Rules are pretty inflexible in our household.
81. T F There is plenty of time and attention for everyone in our family.
82. T F There are lots of spontaneous discussions in our family.
83. T F In our family, we believe you don't ever get anywhere by raising your voice.
84. T F We are not really encouraged to speak up for ourselves in our family.
85. T F Family members are often compared with others as to how well they are doing at work or school.
86. T F Family members really like music, art, and literature.
87. T F Our main form of entertainment is watching T.V. or listening to the radio.
88. T F Family members believe that if you sin you will be punished.
89. T F Dishes are usually done immediately after eating.
90. T F You can't get away with much in our family.

APPENDIX D
COVER LETTER

April, 1994

Dear Student:

As a doctoral candidate in the department of Educational Leadership and Policy Studies at Loyola University Chicago, I am currently working on my dissertation. My research study involves investigating the postgraduate plans of gifted black college students. The overall purpose of the research is to ascertain how family characteristics and college experience variables influence postgraduate plans.

While numerous studies have focused on gifted students in general, in 1935, a scholar by the name of Martin D. Jenkins, was the first African American to publish on the identification of gifted blacks. Since then, other scholars have looked at identification issues and problems related to program enrichment opportunities for gifted black students. However, the literature on gifted blacks essentially ends once the students complete their secondary education and enter institutions of higher education. Thus, another purpose of my study is to contribute to the body of literature on gifted blacks.

I invite you to participate in this study by completing the enclosed questionnaire and returning it to the designated individual at your institution. As a subject in this study, your participation is completely voluntary, confidential and names will not be used. Completion of the questionnaires should take approximately 35-40 minutes.

As an added incentive for your participation, a drawing will be held among those responding to the questionnaire. The winner will receive a \$100.00 dinner gifted certificate for two, at a restaurant of his/her choice. If you are interested, please remove and keep the Identification Code that is located on the back of the questionnaire. The drawing will be held on May 15, 1994, and winners will be notified by mail at the address provided on the last page of this survey. To ensure your eligibility for the drawing, please be sure you have returned your questionnaire to the designated individual at your institutions by this date.

I am thanking you in advance for your participation and wishing you well in your postgraduate endeavors.

Sincerely,
Joy M. Scott
229 Elmwood Ave.
Evanston, Illinois 60202

APPENDIX E
FACTOR ANALYSIS

FACTOR ANALYSIS

A principal components factor analysis was used to distinguish between items that clustered together. A varimax orthogonal rotation with item loadings $> .35$ was the criterion used for inclusion as a factor. The four scales and rotated factor matrix values are listed below.

Factor I: IMPORTANCE OF POSTGRADUATE PLANS	Value
(7 items out of 12)	
1. Enrolling in graduate school immediately after undergraduate school	.69
2. Enrolling in graduate school within one year after undergraduate school	.67
3. Enrolling in graduate school within two years after undergraduate school	.45
4. Attending graduate school as a full-time student	.63
5. Attending graduate school as a part-time student	.65
6. Completing graduate school before I get married	.57
7. Completing graduate school before I start a family	.67
 Factor II: IMPORTANCE OF FINANCIAL STABILITY	
(6 items out of 23)	
1. Applying to graduate school after I've saved money	.55
2. Financing graduate school without student loans	.67
3. Financing graduate school with employment	.60
4. Entering a career that has great financial rewards	.78
5. Being financially successful	.61
6. Having a secure job	.43

	Value
Factor III: PHILANTHROPIC MOTIVATIONS (3 items out of 11)	
1. Making a contribution to society	.65
2. Being a leader in my community	.63
3. Working to correct social and economic inequities	.58
Factor IV: PRESTIGE MOTIVATIONS (3 items out of 11)	
1. Being known as an expert in your chosen field	.64
2. Being nationally or internationally renowned	.71
3. Having a prestigious job or career	.69

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VITA

Joy[ce] Maria Scott is one of five daughters born to Oscar and Ruth Scott of Chicago, Illinois. Her formal education includes a Bachelor of Arts degree in Psychology from Creighton University, Omaha, Nebraska in 1976; a Master of Science degree in Counseling, with emphasis in college counseling from the University of Wisconsin-Platteville in 1979. Her masters's thesis is entitled The Usage of the Sixteen Personality Factor Questionnaire in College Counseling.

After completing her bachelors and masters degrees Joyce moved to Seattle, Washington and worked for eight years in various counseling positions. She returned to her home state in 1987 and soon thereafter, worked under Dr. Paula-Olszewski-Kubilius at the Center for Talent Development at Northwestern University in research involving economically disadvantaged, gifted minority college-bound students. In 1991 she co-authored the article An Investigation of the College and Career Counseling Needs of Economically Disadvantaged Minority Gifted College Bound Students.

Inspired by the research out of the Center for Talent Development and her interest in research involving college

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The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

November 30, 1995
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