1987

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Order Number 8826345

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Iowa State University, 1987

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by

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A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF PHILOSOPHY

Department: Professional Studies in Education
Major: Education (Adult and Extension)

Approved:

Signature was redacted for privacy.

Signature was redacted for privacy.
In Charge of Major Work

Signature was redacted for privacy.
For the Major Department

Signature was redacted for privacy.
For the Graduate College

Iowa State University
Ames, Iowa

1987

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CHAPTER I. INTRODUCTION

Higher education is experiencing dramatic changes in its clientele as an increasingly large number of adult students are enrolling in undergraduate programs. For the purposes of this study, nontraditional students will be operationally defined as being age 24 and over. The percentage of older adult students enrolled in colleges and universities has steadily increased within the last decade. In 1970, the enrollment of adult students in undergraduate school increased to 1.7 million which made up 22% of the college enrollment. By 1975, that number had grown to 3.7 million or 34% of the college enrollment. This increase in the percentage of adult students enrolled in undergraduate institutions continues to rise. The National Center for Education Statistics (NCES) estimated that over 40% of the students enrolled in college in 1985 were 25 or older. They predicted that by the early 1990s, nearly half of all college students will be age 25 or older. The Carnegie Council on Policy Studies in Education (1980) revealed that "By the year 2000, the population will be dominated by people in the middle years" with a steady increase in the group between the ages of 45 and 64. The council further predicted that by the year 2000, the enrollment of college students in the traditional age group would decline by 22%.

The U.S. Census Bureau predicts an increase in enrollment of students age 25 to 64 of approximately one million by 1980. With nontraditional students representing over 40% of the undergraduate population in 1985, plus a projected decline in year 2000 of traditional age students by 22%, nontraditional students may become the 'traditional student' for all undergraduate programs.

Many researchers (Cross, 1981; Kasworm, 1980a; Kuh & Ardiaolo, 1979; Hu, 1985; Iovacchini, Hall, & Hengstler, 1985) have addressed this issue through studying the nontraditional student, primarily comparing them with the traditional college student. Such research has resulted in varied profiles of nontraditional students including: groups ranging in ages from 20 to 52; full-time, part-time categories; resident, nonresident classifications; and minorities including blacks, other minorites and women. Stone (1975) pointed out that women working on undergraduate degrees and first careers comprised two-thirds to three-fourths of the total nontraditional enrollment. All minorities comprise 30% of the nontraditional student population. Blacks, however, represent the largest proportion of the minority nontraditional students enrolled in undergraduate institutions. Research studies revealed that "the

proportion of minority group members who enrolled in college was higher among adults than among traditional students" (Solomon & Gordon, 1981; NCES, 1976). Solomon and Gordon (1981) further stated "Black adult freshman slightly outnumbered other adult minorities" (p. 16). Participation by minority group members is greater in metropolitan areas where college tuition is not as high (Bishop & Van Dyk, 1977). Other studies reported that minorities are concerned about the credibility of their education and more frequently enroll for course credit than whites (Cross, 1979; Carp, Peterson, & Roelfs, 1974).

The review of literature relative to adult students in higher education resulted in many definitions of the nontraditional student. Therein lies a problem for many investigators: what specific characteristics can be used to define the nontraditional student or to distinquish them from the traditional college age student?

> Although the number of reentry students has drastically increased in recent times, colleges have generally failed to take the special needs of these people into consideration. Academia is often found to be difficult by the person who has been away from the educational system for years. Fear and doubts, plus other emotional and behavioral problems create hardships in adjusting to the new student role (Lance, Lourie, & Mayo, 1979, p. 480).

> Since new programs may serve different types of adult learners with varying degrees of success, it is critical, as Cross and Jones (1972) have recommended, to develop a better understanding of the characteristics and interests of adult learners (Morstain & Smart, 1977, p. 666).

Educational institutions that are expecting to adequately respond to the needs of the nontraditional students must first attempt to describe the characteristics of those adult learners currently enrolled in colleges and universities (Kuh & Ardiaolo, 1979). The potential value of understanding this population provides a reference point for evaluating how well educational programs are responding to nontraditional students.

Much of the research regarding nontraditional students has been confined to predominantly white, midwestern universities. If educators are going to address the needs of all nontraditional students, it is imperative to understand the characteristics and needs of a broader base of the nontraditional student population. Such an understanding will contribute to defining nontraditional students and addressing their needs.

Purpose of Study

In view of declining enrollments and financial resources, educational institutions have sought larger numbers of nontraditional students who represent opportunities for enrollment stability or expansion. The nontraditional student is purported to be different than the traditional college student. Thus, it is necessary for these institutions to provide themselves with relevant information regarding the differences and similarities between nontraditional students and the traditional students.

When compared to traditional students, nontraditional students are purported to be more highly motivated (Roelfs, 1975), although high school performance does not reflect a comparable degree of achievement (Cross, 1981; Solomon & Gordon, 1981). Nontraditional students were reported to have lower degree aspirations than traditional students (Solomon & Gordon, 1981), to have multiple roles and to have a need for more help in integrating the world of being a student into their lifestyle (Hepsker & Cloud, 1974). Many national studies have been conducted concerning the demographics of older students (Carp, Peterson, & Roelfs, 1974; Kimmel, 1976; NCES, 1976) comparing nontraditional students in undergraduate programs and those enrolled in

continuing education courses. However, such studies do not make a differentiation between the nontraditional students enrolled in undergraduate school and adult learners enrolled in adult education or continuing education classes. The majority of studies that have addressed the needs and concerns of older students enrolled in college have been limited to women exclusively (Brandenburg, 1974; Durcholz & O'Connors, 1973; Roach, 1976), those older students attending predominantly white public universities (Iovacchini, Hall, & Hengstler, 1985; Kuh & Sturgis, 1980; Kuh & Ardiaolo, 1979) and students enrolled in traditional degree programs (Sosdian & Sharp, 1978). Few studies have addressed college performance (Von der Embse & Childs, 1979; Kasworm, 1980a; Kuh & Ardiaolo; 1979) and college experiences (Kuh & Sturgis, 1980; Kasworm, 1980b; Clark, 1980) of nontraditional students, especially those enrolled in historically black colleges. This study, however, will be directed toward the investigation of similarities and differences between black and white nontraditional students enrolled at historically black and at predominantly white colleges. Similarities and differences between black traditional and black nontraditional students enrolled at predominantly white and at historically black colleges will also be investigated.

Rationale

The numbers of nontraditional students entering higher education has been increasing steadily and, consequently, the percentage of adult students enrolled on college campuses has increased. A major question that permeates the literature regarding the nontraditional student is: what are the similarities and differences between nontraditional and traditional students? Research regarding the differences has been primarily limited to predominantly white midwestern universities. To fully understand the nontraditional student population enrolled in undergraduate programs, it is necessary to explore the similarities and differences between nontraditional and traditional students enrolled in historically black colleges. Historically black colleges have been the primary educators for black students enrolled in colleges. Black colleges historically, assumed responsibility for educating the black population (Gurin & Epps, 1975; Jones Associates, 1970).

> Although, the majority of black students in this country are now attending white colleges, a number of authors and researchers express the conviction that a substantial minority of black students will continue to prefer predominantly black colleges for

> 'personal' reasons (Fleming, 1984, p. 9).

Now that nontraditional black students are attending more white colleges and nontraditional white students are attending more historically black colleges, an investigation of the characteristics of the nontraditional student population needs to include both historically black colleges and predominantly white colleges. Recently, Fleming (1984) conducted a comparative study designed to ascertain the differences between black students who attend black colleges and black students who attend white colleges. Nettles, Thoeny, and Gosman (1986) conducted a comparative analysis of black and white students college achievement and experiences. Findings of these studies revealed differences in traditional students according to race and according to the predominant race of the institution at which the student was enrolled. For educational institutions to respond to nontraditional students, efforts must be made to understand the differences and similarities between traditional and nontraditional students enrolled at predominantly white and historically black colleges. Such efforts should also extend to understanding of the similarities and differences between black and white nontraditional students enrolled at black colleges and at predominantly white colleges.

Efforts must also include identifying differences and similarities between those nontraditional students enrolled at both historically black and predominantly white colleges.

Both historically black and predominantly white institutions are developing and refining programs and offerings to serve a diverse adult student population. The potential success of these programs is based on the degree to which these innovative programs serve the needs and interests of the new clientele.

To fully understand the characteristics, similarities and differences between black and white nontraditional and black traditional students enrolled at black colleges and at white colleges, educators need to find answers to the following questions:

1. Are there differences in academic, personal, behavioral, and attitudinal characteristics of black and white nontraditional students enrolled at black and at white colleges?

2. Are there differences in academic, personal, behavioral, and attitudinal characteristics between black traditional and black nontraditional students enrolled at black and at white colleges?

Problem

Much of the research focusing on nontraditional students compares traditional and nontraditional students

on demographic characteristics, academic performance, and perceptions of the college experience at predominantly white midwestern universities (Kuh & Ardiaolo, 1979; Kasworm, 1980b; Holstrom, 1973; Von der Embse & Childs, 1979; Iovacchini, Hall, & Hengstler, 1985). A larger proportion of minorities are nontraditional students than traditional students. However, little has been done to identify the characteristics, attitudes, and needs of black nontraditional students enrolled in traditional undergraduate programs.

In order to fully assess the characteristics of nontraditional students enrolled in colleges and universities, it is necessary to also identify the characteristics of those nontraditional students enrolled at historically black colleges. Thus, this study represents an initial attempt to assess the similarities and differences between black and white nontraditional students, and between black traditional and black nontraditional students enrolled at both black and white colleges on academic, personal, behavioral, and attitudinal characteristics.

Objectives of Study

The primary objectives of this study are:

1. To compare black and white nontraditional students enrolled at selected historically black colleges and at selected predominantly white colleges on academic, personal, behavioral, and attitudinal characteristics.
2. To compare black traditional and black nontraditional students enrolled at historically black colleges and at predominantly white colleges on academic, personal, behavioral, and attitudinal characteristics.

Null Hypotheses

The hypotheses formulated for testing were developed on the basis of general research hypotheses which were deduced from the rationale and objectives of this study. The hypotheses and sub-hypotheses are:

1. There are no significant differences between nontraditional students enrolled at historically black colleges and those at predominantly white colleges on measures of high school grade point average (HSGPA), Scholastic Aptitude Test (SAT) and cumulative college grade point average (CCGPA) ($p=.05$).
   1a. There are no significant differences between black nontraditional students enrolled at historically

black colleges and those at predominantly white colleges on measures of HSGPA, SAT scores and CCGPA (p=.05)

1b. There are no significant differences between white nontraditional students enrolled at black colleges and those at white colleges on measures of HSGPA, SAT scores, and CCGPA.

2. There are no significant differences between black traditional students enrolled at black colleges and at predominantly white colleges on measures of HSGPA, SAT, and CCGPA (p=.05).

3. There are no significant differences between nontraditional students enrolled at black colleges and those at white colleges on factor scores for interfering problems, socioeconomic status, academic integration, academic motivation, social integration, student satisfaction and feelings of racial discrimination factor scales (p=.05).

3a. There are no significant differences between black nontraditional students enrolled at black colleges and those at white colleges on factor scores for interfering problems, socioeconomic status, academic integration, academic motivation, social integration, student satisfaction, and feelings of racial discrimination factor scales (p=.05).

3b. There are no significant differences between white nontraditional students enrolled at black colleges and those at white colleges on factor scores for interfering problems, socioeconomic status, academic integration, academic motivation, social integration, student satisfaction, and feelings of racial discrimination factor scales (p=.05).

4. There are no significant differences between black traditional students enrolled at black and white colleges on factor scores for interfering problems, socioeconomic status, academic integration, academic motivation, social integration, student satisfaction, and feelings of racial discrimination factor scales (p=.05).

Operational Definitions

The definitions presented reflected operational definitions for sample groups (traditional and nontraditional students) and factor scale definitions.

1. Nontraditional student - Those students age 24 or older enrolled in undergraduate programs.
2. Traditional student - Those students younger than age 24 enrolled in undergraduate programs.

The factor scale operational definitions explained aspects of behavior or attitude measured by each factor scale.

1. Academic integration factor scale - a measure of satisfaction with the academic environment, contact with faculty outside the classroom, academic achievement, and intellectual development since entering college.
2. Academic motivation factor scale - a measure of good study habits, and the presence of clear goals and intellectual stimulation.
3. Student satisfaction factor scale - a measure of general satisfaction with student organizations, academic reputation, administration and college life as a whole.
4. Feelings of racial discrimination factor scale - a measure of belief that they or members of minority groups on campus are racially discriminated against on campus by administration, faculty, and/or other students.
5. Interfering problems factor scale - a measure of problems that hamper student's academic achievement or performance.

6. Social integration factor scale - a measure of a student's ability to make friends with other students, and faculty members, and satisfaction with those relations. Measures contact with other student/faculty members outside of the classroom, participation in campus organizations and activities. This factor reflects their ability to make friends with other students and faculty members.
7. Socioeconomic status factor scale - a measure of the income, education, and occupation of head of the household in student's home environment.

Limitations of Study

An existing data set including extensive information regarding black and white students enrolled in both predominantly white and historically black college provided the bases for this study. Tennessee Higher Education Commission (Nettles, Thoeny, & Danridge, 1983) in a study of causes and consequences of college students performance, collected data including demographic, academic, personal, behavioral, and attitudinal characteristics of black and white students enrolled at black colleges and those at white colleges. Personal, behavioral, and attitudinal characteristics factor scales were generated by THEC in analyses of these data, further discussion of these data

set can be found in Chapter III. This researcher was granted permission to use this data by Dr. Michael Nettles. However, such permission was granted, stipulating that the names of the institutions were not to be used. The large amount of information included in this data set; the potential for identifying practical information about nontraditional students enrolled at black colleges and those at white colleges; and the difficulty in collecting such an extensive data set, particularly on historically black college students prompted the researcher to use this existing data set. These data were collected by the Tennessee Higher Education Commission (Nettles, Thoeny, & Danridge, 1983) from thirty colleges and universities located in the southern and eastern regions of the United States. The nontraditional students attending colleges and universities at this time may be different than the present or future nontraditional students attending higher education institutions.

Research by Aslanian and Brickwell (1980) revealed that adults in the South Atlantic states are less likely to engage in learning than those adults in any other region and that blacks supply considerably less than their proportionate share of learners.

These two research findings have a potential for limiting the sample which would also affect the generalizability of the research findings. Findings for this study can be used as being representative of similar groups of traditional and nontraditional students. However, the diversity of the adult student population requires that data relative to the needs and interests be obtained on a local level for purposes of programming.

Organization of Study

The study is composed of five chapters, a bibliography and appendices. Chapter I describes the problems inherent in providing educational services for nontraditional students, the purpose of the study, the rationale, problem and specific objectives of this study, null hypotheses, operational definitions, and limitations of study.

Chapter II is an assessment and summary of research studies relevant to nontraditional students enrolled in undergraduate programs. This chapter is divided into three sections, demographic characteristics, academic characteristics, and perceptions of college experiences of nontraditional students.

Chapter III presents detailed information on the methodology and procedures for this study. Chapter IV

presents the findings in both tabular and narrative form. The findings are discussed relative to the null hypotheses presented in the Chapter I.

Chapter V presents a summary of the findings, conclusions, recommendations for adult and higher education, and recommendations for further research.

CHAPTER II. REVIEW OF LITERATURE

In this chapter, literature will be reviewed regarding the characteristics of nontraditional students. Many studies have been conducted regarding demographic, academic, and behavioral characteristics. Studies reviewed will be limited to those studies regarding adults enrolled in undergraduate programs. This review is divided into three sections: 1) demographic characteristics; 2) academic characteristics; and 3) perceptions of college experiences.

Demographic Characteristics of Nontraditional Students

Many research studies have been conducted to characterize nontraditional students demographically. The heterogeniety that exists among nontraditional students causes great difficulty in describing them. Most of these studies compared the traditional and nontraditional student. Holstrom (1973) compared the typical freshman with the older freshman. The typical freshman was identified as 18 years old, white, Christian, and male (Astin, 1973). Older students were identified as those who were 20 years of age or older at the time of matriculation (Holstrom, 1973). Both the typical freshman and the older freshman were full-time freshman entering for the first

time. She found that the proportion of blacks was considerably higher among older students than among typical freshman, particularly in two- and four-year colleges. Holstrom (1973) further revealed that older students tended 1) to come from socioeconomically disadvantaged backgrounds; 2) to have made slighty lower high school grades; 3) to be more concerned about the academic reputation and the institution's enrollment of older students like themselves; 4) to be more concerned about college financing; 5) to perceive college benefits as monetary; 6) to obtain lower grades in their major fields; and 7) to have lower educational aspirations than younger college age students.

Solomon and Gordon (1981) also compared traditional and nontraditional freshman in college settings. They used the Cooperative Institutional Research Program (CIRP) data for 172,400 adults, average age 21, who were freshman between the years of 1966-1978. This study was designed to assess similarities and differences between adult undergraduate students and traditional students. Adult learners were defined by these researchers as: over age 21 enrolled either full-time or part-time in regular courses taught by regular faculty members. They found that 75% of the adults over age 21 were in college for the first time.

In 1971, the number had decreased to 50%, and by 1978, only 28% were enrolled for the first time. This trend revealed that within a decade the proportion of adults returning to college had increased with 80% of the adult freshman having taken courses for credit. Other researchers (Schlaver, 1977; Knox, 1977; Cross, Valley, & Associates, 1974) supported the notion that adults with more education tend to seek additional education.

Solomon and Gordon (1981) reported that "minorities became an increasingly important part of adults in college as compared to the traditional-age student group" (p. 16). "The number of white adult freshman fell from 87% in 1966, to 63% in 1975, and has remained around 70% since then" (Solomon & Gordon, 1981, p. 16). "Black adult freshmen slightly outnumbered other adult minorities" (Solomon & Gordon, 1981, p. 16). They further stated "a much higher proportion of adults of both sexes were nonwhites as compared with traditional age students" (p. 18). However, by 1978, all minority groups reflected higher enrollments in metropolitan areas where tuition was lower. This increased enrollment for minorities was reflected in the size of two- and four-year colleges. "It now looks as though increased financial aid and emphasis on college education may have encouraged some blacks to shift out of

part-time, noncredit adult education courses into full-time degree programs" (Cross, 1981, p. 69).

Solomon and Gordon's findings supported and expanded Holstrom's findings. Nontraditional students were more likely 1) to be female; however, smaller differences in enrollment according to sex were found at black colleges; 2) to be disadvantaged both educationally and economically; 3) to have been less likely to pursue college preparatory classes in high school; and 4) to be more heavily career-oriented. CIRP data, however, were not representative of part-time or evening adult students. Because of this, both traditional and nontraditional student differences were most likely understated.

Other researchers and authors identifed many of the same characteristics of older students as did Holstrom (1973) and Solomon and Gordon (1981). Cross (1981) found socioeconomic differences between older and traditional age students. Shipp and McKenzie (1981) asserted that adult students tended to be better educated and hold better jobs than their peers in the general population. Kuh and Ardiaolo (1979) compared freshman adult learners on both a residential and commuter campuses with traditional students enrolled at the residential campus. Findings revealed that older students 1) were from relatively low socioeconomic

family backgrounds; 2) were more likely to have had lower aspirations for both present and future academic degree plans; 3) were more likely to be employed (43% commuter campus and 27% residential campus); 4) were less likely to participate in extracurricular activities; and 5) were more likely to hope to become prepared for a better job. "A disproportionate number of male adult learners were attending the residential campus 54%, 39% of the adult learners were male at the commuter campus and 37% of the traditional age students were male" (Kuh & Ardiaolo, 1979, p. 209). This was dissimilar from other studies in that the primary adult student clientele were female rather than male. Other such studies reported primary adult student clientele to be female rather than male.

Kuh and Ardiaolo (1979) further revealed that "adult learners enrolled at the residential campus were neither directly comparable to traditional age freshman nor to their counterparts at the commuter campus" (p. 215). However, adult learners on the residential campus were more like the traditional age freshman in their reasons for attending college and more like the commuter campus adult learners with regard to their intended major. Kuh and Aradiolo (1979), Holstrom (1973), and Solomon and Gordon (1981) found that traditional age students reported higher

high school grade point averages than did the adult learners.

Hiltunen (1965) conducted a study designed to identify the characteristics, motivations, and problems of the adults classified as freshman. She identified characteristic profiles of the nontraditional female and of the nontraditional male college student. "The average male was 26 years old, married, had one child six years old, was working either full- or part-time, had been out of school nine years, and carried 10.5 credit hours" (p. 208). She further stated "the average female was 32 years old, married, had two children whose average age was nine years, and had been out of school 13.6 years. Her average academic load was nine credit hours" (p. 208). Hiltunen (1965) also reported that mean grade point average of females for the first semester was higher than that of the males.

Another similar study was conducted by Ferguson (1966), the purpose of this study was to gain a better understanding of adult students in undergraduate institutions and to discover their special needs. Ferguson (1966) presented the following findings: adult students ranged in age from 24 to 52, with 80% of them being over 30. She found that 80% were males and slighty over 50%

were single. Of those who were or who had been married, 33 had at least one child, while nine reported three or more children. Two-thirds of the subjects were employed, either full- or part-time, and they carried lighter academic loads. Hiltunen (1965) and Ferguson (1966) reported different kinds of profiles for adult undergraduate students than do many of the more current studies of nontraditional students. The major differences were male participants and older female participants. Iovacchini, Hall, and Hengstler (1985) conducted a study of the differences between adult and traditional students. The findings of this study illustrate some of the differences in a profile of adult students enrolled in undergraduate institutions after the early eighties.

Iovacchini, Hall, and Hengstler (1985) compared adult students, degree-seeking and nondegree-seeking, with traditional college age students. They obtained demographic information; studied student's motivation to obtain higher education, solicited information about student's present status and their perceptions about aspects of the university. Their findings revealed that the degree-seeking adults were (32 years old) slightly younger than the nondegree-seeking.

Iovacchini, Hall, and Hengstler (1985) reported that black

students represented 3.4% of the degree-seeking adults, and represented 1.8% of the nondegree-seeking adults. This finding can be explained by Carp, Peterson, and Roelfs (1974) and Cross (1978) who found that black adult students were more interested in the credibility of their education and, thus, often enroll for course credit more than their white counterparts.

The older degree-seeking adult had a higher divorce or separation rate (14.3%), than the nondegree-seeking adult and the traditional college student. Over seventy percent of them were employed and over forty percent had at least one child who was dependent on them (Iovacchini, Hall, & Hengstler, 1965). Forty-six percent were male, 53.7% female, 59.2% married, 25.9% single, 95.9% white and 3.4% black.

Some researchers identified nontraditional students by demographic characteristics, age, commuter or non-commuter, and enrollment status. Bean and Metzner (1985), in a study of nontraditional student attrition, used all three in a definition of the nontraditional student "older than 24, does not live in a campus residence, is a part-time student, or some combination of these three factors, is not greatly influenced by the social environment of the

institution, and is chiefly concerned with the academic offerings" (p. 480).

Stewart and Rue (1983) identified nontraditional students by age, as being 25 or older in their essay on commuter students. Kuh and Ardiaolo (1979) also used age as a criteria in their study. The age span was larger, adult learners were between the ages of 23-52 years of age.

Chickering (1974) asserts that the most important distinction between the traditional and the nontraditional student is their college residence. The nontraditional student does not live in a campus residence and commutes a distance to classes. Hence, nontraditional students are not greatly influenced by the social environment of the institution.

In summary, the demographic characteristics presented by these studies are indicative of the heterogeniety of the adult student population enrolled in undergraduate programs. Some of the characteristics of nontraditional students that appear to be common among all studies are: 1) more likely to be first generation college students; 2) more likely to major in business; 3) more likely to have lower academic degree aspirations; 4) more likely to be concerned about monetary benefits; and 5) ranged in age from 20 to 52.

Academic Characteristics of Nontraditional Students

Adult students enrolled in undergraduate school bring significantly different composite backgrounds to the undergraduate environment. Some of the research in the area of academic characteristics has been done in conjunction with identifying other characteristics of nontraditional students. Solomon and Gordon (1981) and Cross (1981) found that adult students have slightly lower high school grade point averages than traditional age college students. In a comparison of traditional and nontraditional students on high school performance and college preparation, Solomon and Gordon (1981) reported that the most common grade point average for both groups was a 3.0 on a four-point system (B average). However, more adult students felt they were poorly prepared for college than traditional students. Follow-up data on the CIRP, in 1977, revealed that

> "although adult students came to college feeling less prepared than their traditional age counterparts, this perceived lack of preparation did not seem to hamper their ability to perform almost as well in their college courses as those who were younger and supposedly better prepared. Perhaps then, adults do lack self-confidence in their facing a new and somewhat threatening environment populated primarily by younger people" (Solomon & Gordon, 1981, p. 116).

Roelfs (1975) found that the older students were academically self-confident, and were more likely to want instructor-centered classes as opposed to student-centered classes. He further found that 40% of the students over age 30 wanted the instructor to assume primary responsibility for determining the course content and learning activities. These findings suggest greater dependence on the instructor by adult students. Other findings from Roelfs' study were that older students were more likely: 1) to know what they wanted out of college; 2) to be challenged rather than bored; 3) to feel confident about their ability to keep up with their studies; 4) to understand what is being taught; 5) to spend more time studying; and 6) to express satisfaction with their classes.

Research supportive of Roelfs' findings was conducted by Clark (1980). In a study of the differences in motivation associated with age among skill-deficient college freshmen, Clark found that "older students return to the college setting 1) more resolved than younger students to avoid delaying an academic task; 2) more approving of the role and purpose of teaching; and 3) more approving of the purpose and established process of higher education than the group of younger students who were enrolled in college

immediately after completing high school study" (1980, p. 98). He further found that adult students appeared to see skill deficiency as a challenge. Remediation opportunities were congruent with their wishes to grow within a formal institution (Clark, 1980). The lack of confidence, as reported by Solomon and Gordon (1981), perhaps impacted upon the adult students receptiveness to remediation.

Iovacchini, Hall, and Hengstler (1985) found that older degree-seeking adults study more hours per week per credit hour than traditional age students.

Wright, Smith, and Burger (1978) compared male traditional and nontraditional students on college level performance. They found older students: 1) took significantly fewer credits per semester; 2) earned fewer credits per semester; and 3) had significantly higher cumulative grade point averages than traditional age students.

Malin, Bray, Dougherty, and Skinner (1980) investigated correlates of adult men and women, performance, satisfaction, and adjustment in college. They found that higher academic performance was associated with being female, older, in a higher income bracket, and out of school longer. Men had a lower GPA and reported less positive intellectual and personal achievement. However,

men were reported to have spent more time in paid work and home maintenance combined than women. This research stated, "the performance and satisfaction of adult college students were affected not only by their background and by aspects of college, but also external responsibilities and their goals" (p. 129). Adult students consistently perform equal to or slightly superior academically when compared to traditional students.

Decrow (1959), Schultz and Ulmer (1966), Stephens and Wheeler (1969), and Halfter (1962), conducted research studies that concluded that older students achieve at a higher level in college than did younger students. Solomon and Gordon (1981) reported that although adult students performed as well in undergraduate institutions, college grade point averages were not as high as traditional age students. Stephens and Wheeler (1969) found that students who were 24 years of age or older earned better grades than those students under 24. They also found that those who were at least 40 had the highest academic performance of all students. Halfter (1962) in a study comparing younger and older women found that mature women 40 and older were significantly superior on academic performance. Ryan (1969) compared both older and younger men and women on academic performance and found that adults had a higher

mean on grade point average than younger students. These researchers compared older and younger students on academic grade point averages. Other studies were conducted to ascertain academic capabilities and other factors that affect academic performance.

Kasworm (1980a) conducted a study designed to explore the effects of differences in intellectual and socioemotional orientations of younger and older undergraduate students in a similar undergraduate university setting. She identified these insights as providing information regarding academic capabilities. Her findings revealed that older students displayed characteristics of maturity, reporting significantly higher scores on statements of self-confidence, well-being, mininal fears, and fewer anxieties (Kasworm, 1980a). She stated, "older adults have had the opportunities to apply and refine their skills and abilities, to experience confrontation and test their abilities to move into new environments seeking out accommodation and integration into a new milieu" (p. 43).

Von der Embse and Childs (1979) conducted a study to examine chronological age and marital status as factors affecting academic performance. Findings revealed significant differences in academic performance between

older and younger students. Older students were more likely to have earned high grade point averages (23.4% had GPA > 3.39 in contrast to 15.5% of the younger students). Marital status was a significant factor for adult women in academic performance, 50% of the married women had GPA > 3.39; compared to 18.5% of the single women. For men, marital status was not a significant factor. They concluded that academic achievement is associated with both age and marital status. "This study suggests that perhaps the problem-solving orientation to learning and a desire to immediately apply new knowledge contributes to higher academic achievement" (Von der Embse & Childs, 1979, p. 497).

In summary, the diversity in the adult student population, the varied experiences which they bring to the classroom, their more individual perception of themselves, and their career goals are only a few of the reasons identified by researchers as contributors to superior academic progress as compared to traditional college students.

Perceptions of the College Experiences

Studies of college, the environment, and experiences have mainly focused on institutional characteristics

(Astin, 1968), demographic characteristics of student populations (Astin & Holland, 1961) and social-structural dimensions of university organization (Baldridge, 1971). Perceptions of college experiences have been used more often to assess student satisfaction. Kuh and Sturgis (1980) conducted a study to assess how older students perceived the college environment. They stated, "It is important to understand how older students perceive tehe environment because congruence between students' perceptions and institutional expectations has been found to be related to student satisfaction" (p. 485).

The purposes of their study were: 1) to compare adult learners and traditional students' perceptions of the learning environment; 2) to determine whether adult learners from different institutions differed in their perceptions of their respective environments; and 3) to determine if demographic characteristics related to differences in environmental perceptions among younger students were associated with differences in perceptions for older students. The sample for Kuh and Sturgis (1980) included both traditional and nontraditional students from a major research university and a regional comprehensive university. Findings revealed that adult learners enrolled at the major research institution were more actively

involved in cultural and academic activities than those adult learners enrolled at the regional comprehensive university. Adult learners at both universities reported a variety of reasons for attending college, while traditional students reported primarily "instrumental reasons." At both universities nontraditional students scored lower on Community and Awareness scales. They stated "this result indicates that adult learners perceived less support and emphasis on self-understanding from the environment than did younger students from the respective campuses" (p. 486). Kuh and Sturgis (1980) found that adult learners did not perceive the environment as being particularly supportive or tolerant of individual differences, as compared to traditional students.

Traditional and nontraditional students tended to perceive similar degrees of emphasis on organization, academic achievement, and quality of instruction. Adult learners, however, tended to perceive little emphasis on self-understanding and personal reflection. In addition, Kuh and Sturgis (1980) stated "the differences in environmental perceptions between traditional age students and adult learners suggested that these two groups have different needs and expectations and that these concerns are not being adequately met for older students" (p. 489).

They further stated "given the importance of a support system for student satisfaction and achievement, ways to strengthen this aspect of the campus needs to be explored" (p. 489).

Kasworm (1980b) conducted a study that investigated the similarities and differences between traditional and nontraditional students regarding their use, perception of need, and satisfaction with traditional supportive services at a public university. Younger students reported more significant usage of university orientation program, on-campus housing, health services, student union activities, campus-affiliated religious centers, and remedial courses in mathematics and English. Kasworm also found that nontraditional students reported less usage, and perceived satisfaction with health services, student union activities and academic advisement as compared to traditional students. Personal counseling, vocational/career counseling, financial aid, study skills, tutoring, and job placement services reflected the same levels of usage, perceived need and satisfaction levels for both older and younger students. Bean and Metzner (1985) identified the degree of student participation in extracurricular activities as a measure of social integration. Chickering (1974) and Kuh and Ardiaolo (1979)

supported the finding that nontraditional students exhibit less social integration as compared to traditional students.

Summary

The growing interest in understanding the characteristics of nontraditional students is evident in the studies discussed in this review. Substantial diversity in adult students was revealed by the major findings of these studies. However, national statistics verify that these students will represent the largest undergraduate student population in the eighties.

On the basis of the findings reported in the studies reviewed in this section, the need for identification of characteristics, needs, and expectations of adult students is important to developing and refining programs and offerings to serve this diverse population.

Historically black colleges, according to Gurin and Epps (1975) assumed responsibility for educating the black population. Many adult students are enrolling in undergraduate programs, black and white students at historically black and at predominantly white colleges. These facts provide the basis for identifying the differences and similarities in black and white

nontraditional students to focus on ways to adequately respond to the needs of this new undergraduate subculture.

CHAPTER III. METHODOLOGY

This chapter describes the data collection procedures, instrument, characteristics of the sample, and treatment of data. It concludes with a description of the statistical analyses used.

Survey Procedures

Data for this study were collected as a part of a larger study by the Tennessee Higher Education Commission (THEC) (Nettles, Thoeny, & Danridge, 1983) for use in an empirical study about student attitudes and behavior; attitudes and behavior of black and white faculty; faculty and institutional characteristics upon the student's ability to obtain employment. Permission was granted by Dr. Michael Nettles, Senior Research Associate, Educational Testing Service and Tennessee Higher Education Commission to use these data in an analysis of student characteristics of nontraditional black students and nontraditional white students. However, he stipulated that the names of the institutions were not to be identified. A subset of the above described data was used for this study.

The research methodology for this study incorporated the use of survey research. Survey research as defined by Borg and Gall (1979) "...utilizes a variety of instruments

and methods to study...comparisons between groups" (p. 405).

Thirty colleges and universities in ten southern and border states were selected to participate in this study. Six universities were selected from each of the following categories:

1. Predominantly white, large public universities with a broad array of degree programs through doctoral level;
2. Historically predominantly black, public universities;
3. Predominantly white, regional, public universities with limited graduate programs;
4. Predominantly white, private universities with broad offerings including graduate and professional programs; and
5. Historically predominantly black, private universities.

The criteria used in selecting institutions to represent each of the categories were: type of degree program offered, total undergraduate student enrollment, and the racial composition of that enrollment. The latter was necessary to assure that a sufficient number of blacks and whites were included in the sample and to permit analysis of both races. The 30 colleges and universities selected included 18 predominantly white and 12 historically black colleges and universities. A sample of 300 students was selected from each of these 30

institutions. The sample was stratified by race, so that 50% of the sample were black students and 50% were white. To this end, 50 blacks and 50 whites were selected from the sophomore, junior, and senior classes at each of the 30 universities. All students included in this sample were enrolled during the fall term, 1982 enrollment list at each institution. Institution personnel mailed the questionnaire and had them returned directly to THEC. Follow-up surveys were also mailed by institution personnel and returned to THEC.

The overall response rate was 79.0%. Survey responses were higher (87.5%) at predominantly white, regional public universities, than (73.3%) at predominantly black, public universities.

Instrumentation

The "Student Opinion Survey" (SOS) was developed and used by the Tennessee Higher Education Commission (THEC) to collect the data used in this study. The instrument was designed specifically for their study of black and white students college achievement and experiences (Nettles, Thoeny, & Gosman, 1986).

SOS is a machine readable questionnaire booklet which elicits self-reported information concerning student performance and a wide range of student behaviors and

attitudes. It includes 109 items, the majority are in the Likert format with five response categories, some were write-in numerical responses and the remaining items presented two to eleven optional categories from which the respondents were to choose. These items included demographic characteristics, study habits, attitudes about higher education in general, and the respondent's institution in particular, feelings of student-institutional 'fit' or congruence, socioeconomic status, peer relationships, student faculty relations, personal problems, social activities, educational and career goals, feelings of racial discrimination, length of enrollment in college, number of credit hours earned, academic ability and preparation, and academic performance while in college.

This instrument developed by Nettles, Thoeny & Danridge (1983) and THEC used as references in their development of SOS; the Student Descriptive Questionnaire administered by the college board to SAT examinees, the Educational Testing Services College and University Environment Scale (CUESII) and the Higher Education Evaluation KIT of the Center for the Study of Evaluation at the University of California, Los Angeles. Face validity of this instrument was accomplished through an internal review process with institutional representatives.

Selection and Characteristics of Sample

The sample used in this study represented a subpart of a larger sample. A total of 983 students selected on the basis of age were included in this sample. Four hundred fifty-one students were age 24 and over, nontraditional students, 130 were black and 321 were white. Five hundred and thirty two students were under age 24, traditional students, all of whom were black.

Characteristics used to describe the sample were age, race, sex, predominant race of the institution, college residence, marital status, employment status, transfer status, enrollment status, major, and degree aspirations. The results have been presented in Tables 1-10.

Treatment of Data

Data used in this study were taken from Educational Testing Services Files created by THEC representatives. This data set required the creation of a subset of data that contained only variables derived from the Student Opinion Survey. Frequencies were completed to detect errors in coding or reading. Data were read and prepared for statistical analyses.

Method of Analysis

The factor analysis was carried out by the Tennessee Higher Education Commission (THEC) (Nettles, Thoeny, & Danridge, 1983) to reduce the amount of information contained in the student's file. Many individual items were combined along dimensions with more general meaning. Seventy-two items from the Student Opinion Survey (SOS) were used in computerized factor analyses to develop personal, behavioral and attitudinal factor scales.

Weighting was applied to the analyses because sampling procedures involved oversampling of minorities (blacks at white colleges and whites at black colleges) This weighting scheme was used to make the actual racial composition of the sample more representative of the total student population.

A weighting factor was used by THEC in extracting the factors (as well as in later analyses) so that respondents would contribute to the results according to their actual racial representation at the institution and their institution's actual representation in the total student population, rather than according to their representation in the sample.

The formula used by THEC to weigh individual responses was:

$$\text{Weight} = \frac{\text{\% of students at the institution who are of respondent's race}}{\text{\% of institutional who are of respondent's race}} \times \frac{\text{\% of total student population who attend respondent's institution}}{\text{\% of total sample who attends respondent's institution}}$$

The computerized weighting procedure utilized did not affect degrees of freedom. Tests of significance were not affected by the weighting scheme because they were based on the actual number of cases rather than the weighted number.

Factor derivation

Seven factors were extracted by THEC using principal factoring with iteration (to relax the assumption of orthogonality among factors). The seven factors extracted were used to develop a framework of seven factor scales measuring the following behavioral and attitudinal dimensions: academic integration, student satisfaction, social integration, and interfering problems. Socioeconomic status factor was created through a separate factor analyses of the student scores. Three items for head of household were factor analyzed: total income, education, and occupation. One factor was extracted using principal factoring with iteration, and the same weighting procedure was employed as those discussed with the other

factors. A weighted factor score (based on weighted factor scoring coefficients corresponding to each of the seven scales) were computed for each student respondent for whom data were available on the scale (Nettles, Thoeny, & Danridge, 1983). These factor scores were employed in subsequent analyses in place of the individual items represented by the dimensional framework.

The factor scores for academic integration, social integration, student satisfaction, and academic motivation were multiplied by -1 to reverse the signs allowing the factor name to be stated positively (i.e., the lack of academic integration to academic integration; lack of student social integration to social integration; lack of student satisfaction to student satisfaction, lack of academic motivation to academic motivation).

Factor scales

Factor scales descriptions and interpretations as presented by THEC are as follows:

1. Academic Integration scale measured student integration into satisfaction with the academic environment at their university. High scores represented relatively high academic integration.
2. Student satisfaction scale measured student's general satisfaction with the university as a

whole. High scores represented high student satisfaction.

3. Academic motivation scale measured good study habits. High scores indicated high academic motivation.
4. Feelings of racial discrimination scale measured student's beliefs that they or members of minority groups on campus were racially discriminated against by faculty administration and students. High scores indicated high feelings of racial discrimination.
5. Social integration measured student's contact with other students and faculty outside the classroom. High scores indicated low social integration.
6. Interfering problems scale measured problems which interfered with student's academic achievement or performance. High scores indicated a large number of interfering problems.
7. Socioeconomic status scale measured education, income and occupation of head of the household. High scores indicated relatively high socioeconomic status.

For additional information, a detailed list of items included in each factor, correlation, and reliability coefficients, see Appendix B.

Reliability

Cronbach's Alpha test of reliability was used to measure internal consistency. Reliability coefficients for the seven factors ranged from .66 to .82. Factor items, correlation for the seven factor scales and reliability coefficients are illustrated in Appendix B.

The data were analyzed using the Statistical Package for Social Sciences (SPSS-X) (Nie et al., 1983). There were two steps in data analyses: 1) preliminary and 2) hypothesis testing. The preliminary analysis included frequency counts, and percentages.

The second step hypothesis testing, analyses of covariance with race and predominant race of the institution as independent variables with type of institution as a covariate, tested the following hypotheses:

1. There are no significant differences between nontraditional students enrolled at historically black colleges and those at predominantly white colleges on measures of high school grade point average (HSGPA), Scholastic Aptitude Test (SAT), and cumulative college grade point average (CCGPA) (p=.05).

   1a. There are no significant differences between black nontraditional students enrolled at historically black colleges and those at predominantly white colleges on measures of HSGPA, SAT scores and CCGPA (p=.05)

1b. There are no significant differences between white nontraditional students enrolled at black colleges and those at white colleges on measures of HSGPA, SAT scores, and CCGPA.

2. There are no significant differences between black traditional students enrolled at black colleges on measures of HSGPA, SAT, and CCGPA (p=.05).

3. There are no significant differences between nontraditional students enrolled at black colleges and those at white colleges on factor scores for interfering problems, socioeconomic status, academic integration, academic motivation, social integration, student satisfaction and feelings of racial discrimination factor scales (p=.05).

3a. There are no significant differences between black nontraditional students enrolled at black colleges and those at white colleges on factor scores for interfering problems, socioeconomic status, academic integration, academic motivation, social integration, student satisfaction, and feelings of racial discrimination factor scales (p=.05).

3b. There are no significant differences between white nontraditional students enrolled at black colleges and those at white colleges on factor scores for interfering problems, socioeconomic status, academic integration, academic motivation, social integration, student satisfaction, and feelings of racial discrimination factor scales (p=.05).

4. There are no significant differences between black traditional students enrolled at black and white colleges on factor scores for interfering problems, socioeconomic status, academic integration, academic motivation, social integration, student satisfaction and feelings of racial discrimination factor scales (p=.05).

A single asterisk (*) was used in the tables to denote significant differences at the .05 level, and the double

asterisk (**) was used to denote significant differences at the .01 level.

CHAPTER IV. FINDINGS AND DISCUSSION

The primary purposes of this study were 1) to compare black nontraditional students and white nontraditional students enrolled in historically black college and predominantly white colleges on demographic, academic, personal, behavioral, and attitudinal characteristics; 2) to compare black nontraditional and black traditional students enrolled at historically black and predominantly white colleges on demographic, academic, personal, behavioral, and attitudinal characteristics. Findings relative to these purposes are divided into four major sections; 1) demographic characteristics; 2) academic characteristics; 3) personal, behavioral, and attitudinal factors; and 4) discussion of findings and conclusions. Demographic characteristic findings are further divided by two subsections; 1) nontraditional students and 2) traditional students. The three remaining sections are divided into four subsections: 1) nontraditional students 2) black nontraditional students; 3) white nontraditional students; and 4) black traditional students.

Demographic Characteristics

Demographic data obtained from the Student Opinion Survey were compiled using frequency counts and percentages according to the folowing categories.

Age

Nontraditional students

For this study, students age 24 and over were defined as nontraditional students. The nontraditional student sample included 451 subjects, which was 46% of the total sample for this study. Three hundred and twenty-one of the nontraditional students were white (see Table 1). This group represented (33%) of the total sample.

One hundred and thirty of the nontraditional subjects were black (see Table 1), which was 13% of the total sample. Black nontraditional students comprised 29% of the nontraditional students whereas, white nontraditional students represented 71% of the nontraditional subjects.

Traditional students

For this study those students under age 24 were defined as traditional students. The traditional student sample of 532; was black (see Table 1).

Sex

Nontraditional students

The nontraditional student group had a slightly larger number of males (51.1%) than females (48.9%).

In the black nontraditional student group, 52.1% were males, with the rest (47.9%) females. A larger percentage of males were in the black nontraditional group (see Table 2) than in the other two groups.

Table 1. Age by group classification

Grouping/ Category	Nontraditional		Traditional
	Black	White	Black
	Number	Number	Number
18-23 years			532
24 & Over	130	321	
Total	130	321	532

The white nontraditional group included 50.8% males and 49.2% females.

Black traditional students

The black traditional group had a larger percentage of females in the sample. More than sixty-five percent of this group were females and 34.9% were males (see Table 2).

Black traditional students included a higher percentage of females than did the nontraditional sample.

Marital Status

Nontraditional students

An examination of the data in Table 3 revealed that 44% of the nontraditional students were married, while thirty-four percent were single and 17% were divorced or separated. Four percent were living together.

Black nontraditional students were more often single than white nontraditional students. Forty-eight percent of the black nontraditional students were single. More than one-third (35.7%) were married, 15% were divorced or separated, and .8% were living together (as indicated in Table 3).

Table 2. Sex by group classification

Grouping/ Category	Nontraditional				Traditional	
	Black		White		Black	
	Number	Percent	Number	Percent	Number	Percent
Males	67	52.1	162	50.8	183	34.9
Females	62	47.9	157	49.2	341	65.1
Total	129	100.0	319	100.0	524	100.0

Of the white nontraditional students, 47.6% were married and 28.5% were single. Almost one-fifth (17.9%) were divorced or separated and 6% were living together. Larger percentages of white nontraditional students were married, divorced or separated, and lived together when compared to black nontraditional students (see Table 3).

Black traditional students

Most of the black traditional students were single (95.8%). Of the remaining 4.2%, 2.6% were married, .9% were living together and .6% were divorced or separated.

Table 3. Marital status by group classification

Grouping/ Category	Nontraditional				Traditional	
	Black		White		Black	
	Number	Percent	Number	Percent	Number	Percent
Single	62	48.0	90	28.5	502	95.8
Living Together	1	.8	19	6.0	5	.9
Married	46	35.7	150	47.6	14	2.6
Divorced/ Separated	20	15.5	57	17.9	3	.6
Total	129	100.0	316	100.0	524	100.0

College Residence

Nontraditional students

As indicated in Table 4, almost seventy percent (69.3%) of the nontraditional subjects lived in a private home or an apartment. Eleven percent lived in campus student housing, while 19.9 % lived with their parents or relatives.

More black nontraditional students (67.4%) lived in a private homes or an apartment than those (9%) who lived in campus student housing. Twenty-four percent lived with parents or relatives.

More than two-thirds (68.7%) of the white nontraditional students lived in private homes or apartments and 14% lived in campus student housing. Fewer white nontraditional students (18.3%) lived with their parents or relatives when compared to black nontraditional students (see Table 4).

Black traditional students

Over one-half (59.8%) of the traditional students lived in campus student housing. Fifteen percent lived in private homes or apartments. More black traditional students (24.6%) lived with their parents or relatives than nontraditional students (see Table 4).

Employment Status

Nontraditional students

Over half (57%) of the nontraditional students worked off campus. More than sixteen (16.9%) percent worked on campus and 27.1% did not work. Sixteen percent worked 40 hours per week; 12% worked 30-39 hours per week and 16% worked 20 to 29 hours per week. Nine percent of the nontraditional students worked 10-19 hours per week; and 27% worked 1-9 hours per week. Twenty percent of the nontraditional students did not work or only worked occasionally.

Table 4. College residence by group classification

Grouping/ Category	Nontraditional				Traditional	
	Black		White		Black	
	Number	Percent	Number	Percent	Number	Percent
Parents or relatives	31	24.0	58	18.3	130	24.6
Private home/ apartment	87	67.4	218	68.7	82	15.6
Campus student housing	11	9.0	41	14.0	316	59.8
Total	129	100.0	311	100.0	528	100.0

Over two-thirds (69%) of the black nontraditional students worked off campus. Twenty-six (15.5%) worked on campus and 15.5% did not work. Almost one-third (32.3%) of the black nontraditional students worked forty hours or more per week. When compared to white nontraditional students, black nontraditional students worked more hours per week (see Table 5). More than seventeen percent (17.2%) did not work or only worked occasionally. Twelve (9.3%) of worked 30-39 hours per week, 13.4% worked 20-29 hours per week and 17.1% worked 10-19 hours per week.

Over-one half (52.2%) of the white nontraditional students worked off campus. Almost one-third (31.7%), 16.1% worked on campus and the rest did not work. Of those white nontraditional students that were employed, 9.9% worked 40 hours or more per week, 13% worked 30-39 hours per week. More than seventeen percent of the white nontraditional students worked 20-29 hours per week, 4.9% worked 10-19 hours per week and 34% worked 1-9 hours per week. The largest percentage of white nontraditional students worked 1-9 hours per week as compared to the largest percentage of black nontraditional students worked 40 or more hours per week. Twenty percent of the white nontraditional students did not work or only worked occasionally.

Black traditional students

Thirty-seven percent of black nontraditional worked on campus as compared to 28.1% who worked off campus. Forty-five percent of the black traditional students did not work or only worked occasionally. Twenty-three percent worked 10-19 hours per week and 12.9% worked 20-29 hours per week. Sixteen black traditional students worked 30-39 hours per week and 22 worked 40 or more hours per week (see Table 5).

Transfer Status

Nontraditional students

Seventy-nine percent of the nontraditional students had taken a course at a university other than the one at which they were presently enrolled and transferred those courses to their university. More white nontraditional students had taken courses at other universities, when compared to black nontraditional students.

Seventy-two (55.7%) of the black nontraditional students had taken courses at other institutions and transferred those courses to the university at which they were enrolled (see Table 6). Over one-third (44.3%) had only taken courses at the university at which they were enrolled.

Eighty-seven percent of the white nontraditional students had taken courses at other universities and transferred those courses to their university (see Table 6). Thirty-nine (12.2%) had only taken courses at the university at which they were enrolled.

Table 5. Employment status by group classification

Grouping/ Category	Nontraditional				Traditional	
	Black		White		Black	
	Number	Percent	Number	Percent	Number	Percent
Where Employed						
On-campus	26	15.5	50	16.1	192	37.0
Off-campus	89	69.0	162	52.2	145	28.1
Do not work	20	15.5	99	31.7	181	34.9
Total	129	100.0	311	100.0	518	100.0
Hours worked per week						
1-9	14	10.8	109	34.0	61	11.6
10-19	22	17.1	16	4.9	123	23.3
20-29	17	13.4	55	17.3	68	12.9
30-39	12	9.3	42	13.0	16	3.0
40+	41	32.3	32	9.9	22	4.1
0 or Occasional	22	17.2	67	20.8	237	45.1

Table 6. Transfer Status by group classification

Grouping/ Category	Nontraditional				Traditional	
	Black		White		Black	
	Number	Percent	Number	Percent	Number	Percent
Transferred Credits						
Yes	72	55.7	280	87.8	156	29.5
No	57	44.3	39	12.2	371	70.5
Total	129	100.0	319	100.0	527	100.0

Black traditional students

Over seventy percent (70.5%) of the black traditional students had only taken courses at the university at which they were enrolled (see Table 6). Twenty-nine percent had taken courses at other universities and transferred them to their university.

Degree Aspirations

Nontraditional students

As indicated in Table 7, 47% of the nontraditional students aspired to a master's degree, as compared to 36% to a bachelor's degree.

Black nontraditional students, results indicated that over one-half (52.3%) aspired to a master's degree as

compared to 14.8% to a bachelor's degree. Eighteen percent aspired to a doctorate and 11.7% to a professional degree (see Table 7).

When compared to black nontraditional students, a higher percentage of white nontraditional students aspired to a bachelor's degree (44.6%), while 44.3% aspired to a master's degree. Almost five percent (4.9%) of white nontraditional students aspired to a professional degree and 5.4% aspired to a doctorate.

Traditional student

Degree aspirations of black traditional students reflected findings similar to those of black nontraditional student. Almost one half (46.5%) aspired to complete the master's degree, while 16% aspired to the doctorate degree. Twenty percent aspired to the bachelor's degree and 16.3% aspired to a professional degree (see Table 7).

Enrollment Status

Black traditional students

More than two-thirds (68%) of the nontraditional students were enrolled in college full-time. Thirty-two percent were enrolled part-time (see Table 8). More black nontraditional students enrolled full-time than white nontraditional students.

Table 7. Degree aspirations by group classification

Grouping/ Category	Nontraditional				Traditional	
	Black		White		Black	
Degrees	Number	Percent	Number	Percent	Number	Percent
Associate	4	3.2	1	.3	2	.3
Bachelor's	19	14.8	143	44.6	109	20.7
Master's	67	52.3	142	44.3	244	46.5
Doctorate	23	18.0	17	5.4	84	16.0
Professional	15	11.7	16	4.9	86	16.3
Total	128	100.0	319	100.0	525	100.0

Table 8. Enrollment by group classification

Grouping/ Category	Nontraditional				Traditional	
	Black		White		Black	
	Number	Percent	Number	Percent	Number	Percent
Full-time	105	81.6	194	61.8	508	96.5
Part-time	24	18.4	120	38.2	18	3.5
Total	129	100.0	314	100.0	526	100.0

Over eighty percent (81.6%) of the black nontraditional students were enrolled full-time, and the rest (18.4%) were enrolled part-time (see Table 8).

Of the white nontraditional students 61.8 % were enrolled full-time. More than thirty-eight percent (38.2%) were enrolled at their university part-time.

Black traditional students

Most of the black traditional students (96.5%) were enrolled full-time. Three and one-half percent were enrolled part-time (see Table 8).

Academic Major

Nontraditional students

Most nontraditional students had business as their academic major.

One-third (33.3%) of the black nontraditional students had business as their major. Almost sixteen percent (15.9%) had education as their major, 13.3% had health-related sciences and 12% had social science as their major. Business, health-related sciences, and social sciences were also reported as a major by a large percentage of white nontraditional students.

More than twenty-seven percent of the white nontraditional students (27.1%) reported business as their major (see Table 9). Sixty-seven (13.8%) reported their major as social sciences, 13.4% had engineering as their major, and 13% had health-related sciences as their major. The top four majors reported by white nontraditional students as their choices were also reported by black traditional students as their top four majors.

Black traditional students

More than twenty-seven percent of the black traditional students majored in business. More than twelve percent (12.8%) had social sciences as their major, 11.7% had engineering, and 12.8% had health-related sciences as their academic major. Black traditional students reflected the same top four majors as did white nontraditional students.

High School Rank

Nontraditional students

High school rank data were self-reported by the students included in this sample. Findings revealed that seventy-four percent of the nontraditional students ranked in the top half of their high school graduating classes.

Table 9. Academic major by group classification

Grouping/ Category	Nontraditional				Traditional	
	Black		White		Black	
	Number	Percent	Number	Percent	Number	Percent
Agriculture	1	.7	16	5.0	5	1.0
Art & Humanities	11	8.7	33	10.5	34	6.5
Biological Science	4	2.7	3	.9	38	7.4
Business	43[a(1)]	33.3	71[1]	22.1	144[1]	27.5
Communication	6	4.6	9	2.7	37	7.0
Education	20[2]	15.9	35	10.8	43	8.3
Engineering	9	7.3	43[3]	13.4	63[3]	11.7
Health Related Science	17[3]	13.3	42[4]	13.0	57[4]	11.0
Physical Sciences	1	.8	16	4.9	8	1.6
Social Science	12[4]	9.7	44[2]	13.8	67[2]	12.8
Other	4	2.9	8	2.6	28	5.3

[a]Superscript number (43^1, 20^2, 17^3, 12^4) denotes top four majors in each group.

Thirty-five percent ranked in the top quarter and 39% in the second quarter.

Of the black nontraditional students 90 (72%) ranked in the top half, 29.8% of whom were in the top quarter. More than forty-two percent ranked in the second quarter. More than twenty-five percent (25.6%) ranked in the third quarter and 2.4% ranked in the low quarter (see Table 10).

Seventy-four percent of the white nontraditional students ranked in the top half of their high school graduating class. More than thirty-seven percent ranked in the top quarter and 37.6% ranked in the second quarter. Sixty-two (19.9%) ranked in the third quarter and 5.2% ranked in the low quarter (see Table 10).

Black traditional students

More than eighty percent (80.7%) of the black traditional students ranked in the top half of their high school graduating class. Almost half (45.3%) of them ranked in the top quarter and 35.3% ranked in the second quarter. Eighty percent ranked in the third quarter and only 1.1% ranked in the low quarter (see Table 10).

Table 10. High school rank by group classification[a]

Grouping/ Category	Nontraditional				Traditional	
	Black		White		Black	
	Number	Percent	Number	Percent	Number	Percent
First Quarter	37	29.8	116	37.3	237	45.3
Second Quarter	53	42.2	118	37.6	185	35.4
Third Quarter	32	25.6	62	19.9	95	18.2
Fourth Quarter	3	2.4	16	5.2	6	1.1
Total	130	100.0	312	100.0	522	100.0

[a]Self-reported data.

Summary of Demographic Characteristics

A review of the demographic data revealed that there were more males than females in the nontraditional sample. More than eighty-five percent of the black nontraditional students were male, and over fifty percent of the white nontraditional students were males.

Almost half (47.7%) of the white nontraditional students were married. However, only 35.7% of the black nontraditional students were married. Almost fifty percent (48%) of the black nontraditional students were single. Most of the nontraditional students resided in private

homes or apartments, very few lived on campus. More than one-half of the nontraditional students worked off campus). However, most of the black traditional students (59.8%) lived in campus housing and (37.0%) worked on campus. Thirty-two percent of the black nontraditional students worked forty or more hours per week, while 9.9% of the white nontraditional students worked forty or more hours per week. However, (34.0%) of the white nontraditional students worked 1 to 9 hours per week as compared to (10.8%) of black nontraditional students. Nontraditional students had more often (55.7% black, 87.8% white) taken courses at other universities and transferred those hours than black traditional students (29.5%). Degree aspirations for black nontraditional students were higher (52%) aspired for a master's degree, as compared to 44.3% of the white nontraditional students. Forty-six percent of the black traditional students aspired for a master's degree. Eighteen percent of the black nontraditional students aspired for the doctorate, 5.4% of the white nontraditional students, and 16.0% of the black traditional student reported the same aspirations. These data indicated that black nontraditional students worked full-time and attended college full-time.

Academic Characteristics

Analyses of covariance were computed on HSGPA, SAT scores, and CCGPA by the predominant race of the institution; controlling for the type of university. These analyses were computed and discussed for the following groups: 1) nontraditional students, 2) black nontraditional students, 3) white nontraditional students, and, 4) black traditional students.

The measures of HSGPA and CCGPA were self-reported on a nine-point ordinal variable (A, A-, B+, B, B-, C+, C, C-, D+ or less). The mean was not a measure of actual gradepoint average, but a letter grade average according to the above described scale. For interpretation of the data, the smaller the mean, the higher the gradepoint average (e.g., A=1.00, A-= 2.00, B+= 3.00, B=4.00, B-=5.00, C+= 6.00, C=7.00, C-=8.00, D+=9.00). The mean was used to report grade point averages. However, the discussion interprets the average using the above letter grade scale.

The discussion of academic characteristics will be organized according to the dependent variables, HSGPA, SAT Scores, and CCGPA. Each dependent variable will be discussed by the independent variables, the student groups.

High School Grade Point Average

Nontraditional students

Analyses of covariance comparing nontraditional students on HSGPA revealed no significant differences in Mean HSGPA (Table A1, Appendix A). Mean HSGPA was lower (3.92, B) for white nontraditional students than for black nontraditional students (4.12, B). Both groups had a B average or better.

Black nontraditional students

When comparing black nontraditional students enrolled at historically black and predominantly white colleges on HSGPA, no significant difference was found in mean HSGPA. The mean average for both groups was a B. However, mean HSGPA for black nontraditional students enrolled at predominantly white colleges were lower 3.62 (B) than that of black nontraditional students (4.13, B) enrolled at white colleges (Table A2, Appendix A).

White nontraditional students

When comparing white nontraditional students enrolled at historically black and predominantly white colleges on HSGPA, no significant difference was found. The mean average for both groups was a B gradepoint. However, mean HSGPA was lower (3.92, B) for those enrolled at white

colleges than for those enrolled at black colleges 4.12 (B), as indicated in Table A3, Appendix A.

Table 11. Analysis of covariance - HSGPA (black traditional students)

Grouping	Number	Mean	F Value	F Prob.
Black Traditional				
Predominant Race (Institution)			38.258**	.000
White College	163	3.03		
Black College	360	3.94		

**Significant at the .01 level.

Black traditional students

When comparing black traditional students enrolled at black colleges and those enrolled at white colleges on HSGPA, a significant difference was found at the .01 level. The mean average for traditional student was a B average or better. Mean HSGPA was lower for black traditional students enrolled at white college (3.03, B+) than for those enrolled at black colleges (3.94, B) as indicated in Table 11. The covariate, type of institution, was not significant. Differences in mean HSGPA were not due

directly to differences in type of institution, but rather to the predominant race of the institution.

Scholastic Aptitude Test Scores

Nontraditional students

Analyses of covariance on SAT scores for nontraditional students revealed a significant difference at the .01 level. The covariate, type of university, was also significant at the .01 level. Mean SAT score was higher (1010.96) for nontraditional students enrolled at white colleges than for nontraditional students (839.98) enrolled at black colleges as shown in Table 12.

Table 12. Analysis of covariance-SAT scores (nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race			1	127.398**	.000
Black Colleges	146	839.38			
White Colleges	296	1010.96			

**Significant at the .01 level.

Black nontraditional students

When comparing black nontraditional students enrolled at historically black college and those enrolled at

predominantly white colleges on SAT scores, a significant difference was found in Mean SAT scores at the .01 level (Table 13). Black nontraditional students attending white

Table 13. Analysis of Covariance- SAT scores (black nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	13.893**	.000
Black Colleges	108	802.81			
White Colleges	20	891.80			

**Significant at the .01 level.

colleges had a higher mean SAT score (891.80) than those attending black colleges (802.81). The covariate, type of institution, was not significant.

White nontraditional students

When comparing white nontraditional students enrolled at historically black colleges and predominantly white colleges on mean SAT scores, the analysis of covariance results revealed a significant difference in mean SAT scores at the .01 level. Mean SAT score was higher (1019.61) for white nontraditional students enrolled at predominantly white colleges than for those (941.51) enrolled at black colleges (Table 14). The covariate, type

of institution was significant at the .01 level. The difference in the groups mean can be attributed to the difference in types of institutions and the difference in the predominant race of the institution.

Table 14. Analysis of covariance-SAT scores (white nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	6.869**	.000
Black Colleges	37	941.51			
White Colleges	276	1019.61			

**Significant at the .01 level.

Black traditional students

An analysis of covariance computed for black nontraditional students enrolled at black and white college on SAT scores revealed a significant difference at the .01 level (Table 15). Mean SAT score was higher for black traditional students enrolled at white colleges (897.03) than for those enrolled at black colleges (784.53). The covariate, type of institution, was not significant. The difference in the mean of the groups can be attributed to the predominant race of the institution.

Table 15. Analysis of covariance-SAT scores (black traditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	119.038**	.000
Black Colleges	360	784.53			
White Colleges	163	897.03			

**Significant at the .01 level.

Cumulative College Grade Point Average

Cumulative college gradepoint average (CCGPA) was self-reported on a nine-point ordinal scale, as described earlier. Mean scores for this variable are not representative of actual four-point scale measure, but of a letter grade point average.

Nontraditional students

When comparing nontraditional students enrolled at black colleges with those enrolled at predominantly white colleges on CCGPA, no significant difference was found (Table A4, Appendix A). Mean CCGPA was similar for both groups, a B- gradepoint average.

Black nontraditional students

The results of the analysis of covariance for black nontraditional students on CCGPA, revealed a significant difference at the .05 level in mean CCGPA (Table 16). Black nontraditional students enrolled at black colleges had higher (B) grade point averages than those enrolled at white colleges (B-). The covariate was not significant. The difference in mean CCGPA was due directly to the difference in predominant race of the institution.

White nontraditional students

When comparing white nontraditional students enrolled at black and white colleges, no significant difference was found in mean CCGPA (Table A5, Appendix A).

Black traditional students

A significant difference was found in mean CCGPA when comparing black traditional students enrolled at black colleges with those enrolled at white colleges (Table 17). Mean CCGPA was higher (B-) for those enrolled at black colleges than those (C+) enrolled at white colleges. The covariate, type of institution, was significant at the .01 level. These data suggest that the differences in mean score are due to the difference in the type of institution and in the predominant race of the institution.

Table 16. Analysis of covariance-CCGPA (black nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race(Institution)			1	10.432**	.000
Black Colleges	108	4.38			
White Colleges	20	5.83			

**Significant at the .01 level.

Table 17. Analysis of covariance-CCGPA (black traditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	4.770*	.029
Black Colleges	360	5.33			
White Colleges	163	5.90			

*Significant at the .05 level.

Behavioral and Attitudinal Factors

Behavioral and attitudinal factor scales included interfering problems, socioeconomic status, academic motivation, academic integration, social integration, student satisfaction, and feelings of racial discrimination. For each of these factors, findings and

discussion will be divided into the following subsections: 1) nontraditional; 2) black nontraditional; 2) white nontraditional students, and 4) black traditional students.

Interfering Problems Factor

Nontraditional students

The results of an analysis of covariance for the interfering problems factor comparing nontraditional students revealed no significant difference in mean interfering problems factor scores. No difference was found in mean scores of nontraditional students enrolled at black colleges and those enrolled at white colleges (Table A6, Appendix A).

Black nontraditional students

On the basis of the analysis of covariance, comparing black nontraditional students enrolled at black colleges and those enrolled at white colleges, no significant difference was found in mean interfering problems factor scores for the two groups. Results are shown in Table A7, Appendix A.

White nontraditional students

A significant difference was found in mean interfering problems factor scores at the .05 level, when comparing

white nontraditional students enrolled at black colleges with those enrolled at predominantly white colleges (Table 18). The covariate, type of institution, was not significant. These data suggest that differences in mean scores were not due to differences in type of institution but due directly to differences in predominant race of the institution. Mean interfering problems factor score was found to be higher for white nontraditional students enrolled at white colleges than those enrolled at black colleges. This finding suggests that white nontraditional students enrolled at white colleges had more problems that interfered with their academic performance and achievement.

Table 18. Analysis of covariance-interfering problems factor (white nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	4.295*	.039
Black Colleges	43	-0.42			
White Colleges	279	-0.16			

*Significant at the .05 level.

Black traditional students

On the basis of an analysis of covariance a significant difference at the .01 level was found between black traditional students enrolled at black colleges and those enrolled at white colleges on mean interfering problems factor (Table 19). The mean score of black traditional students enrolled at black colleges was lower (.08) than those attending white colleges (.38). The higher mean score for black traditional students enrolled at white colleges indicated a larger number of problems that interfered with academic performance and achievement when compared to those at black colleges.

Table 19. Analysis of covariance-interfering problems factor (black traditional)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	8.463**	.004
Black College	366	.08			
White College	166	.38			

**Significant at the .01 level.

Socioeconomic Status Factor

Nontraditional students

An analysis of covariance computed for nontraditional students enrolled at black colleges and at white colleges revealed no significant difference in mean socioeconomic status factor (Table A8, Appendix A).

Black nontraditional students

On the basis of an analysis of covariance, comparing black nontraditional students enrolled at black colleges and at white colleges, no significant difference was found in mean socioeconomic factor scores. Mean SES factor score was higher for black nontraditional students (-1.99) enrolled at black colleges than those enrolled (-2.24) at white colleges (Table A9, Appendix A).

White nontraditional students

An analysis of covariance computed to compare white nontraditional students on SES factor revealed no significant difference in mean SES factor scores (Table A10, Appendix A). Mean SES factor score for white nontraditional students enrolled at white colleges was higher (-0.45) than those (-0.64) enrolled at black colleges.

Black traditional students

Based on the results of an analysis of covariance comparing black traditional students enrolled at black college and at white colleges, no significant difference was found in mean SES factor scores as shown in Table A11, and Appendix A. The covariate was significant at the .01 level. The socioeconomic factor was not significant for black traditional students when comparing the mean socioeconomic factor score for those enrolled at black colleges and those at white colleges as indicated in Table A11. Black traditional students enrolled at white colleges had a higher mean SES factor score than those at black colleges.

Academic Integration Factor

Nontraditional students

An analysis of covariance for mean academic integration factor score was computed comparing nontraditional students enrolled at black and white colleges with type of institution as a covariate. The results revealed a significant difference at the .01 level for mean academic integration factor score for nontraditional students enrolled at black colleges and those enrolled at white colleges. The mean academic

integration factor score was higher (-0.05) for those enrolled at white colleges than those (-2.37) enrolled at black colleges (Table 20).

Table 20. Analysis of covariance - academic integration factor (nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	11.539**	.001
Black College	14	-2.37			
White College	287	-0.05			

**Significant at the .01 level.

Black nontraditional students

A significant difference was found when comparing mean academic integration factor scores for black nontraditional students enrolled at black colleges and at predominantly white colleges (Table 21). The covariate, type of institution, was significant at the .05 level. The mean academic integration factor score for black nontraditional students enrolled at white colleges was higher (.58) than for those enrolled at black colleges (-3.17). The higher mean score represented relatively higher academic integration for black nontraditional students enrolled at

white colleges. The covariate, type of institution, was significant at the .05 level. This difference in scores can be attributed to both the difference in type of institution and difference in the predominant race of the institution.

White nontraditional students

No significant difference was found when comparing mean academic integration for white nontraditional students enrolled at white colleges and those enrolled at black colleges. Mean academic integration factor score was higher for those enrolled at white colleges (-0.09) than that of (-0.35) those enrolled at black colleges (Table A12, Appendix A).

Black traditional students

Analysis of covariance computed for black traditional students revealed a significant difference at .01 level between black traditional students enrolled at black colleges and those enrolled at white colleges on mean academic integration factor score. Mean academic integration factor score was higher (1.71) for black traditional students enrolled at white colleges than those enrolled at black colleges (-2.61). This higher mean score represented higher academic integration for black students

enrolled at white colleges when compared to those enrolled at black colleges (Table 22).

Academic Motivation

Nontraditional students

A significant difference at the .01 level was found when comparing the mean academic motivation factor scores for nontraditional students enrolled in black colleges and those enrolled at white colleges. The covariate, type of institution, was not significant. The mean academic motivation factor score for those nontraditional students enrolled at white colleges was higher (-0.68) than those enrolled at black colleges (-1.52), as indicated in Table 23. This finding suggests that nontraditional students

Table 21. Analysis of covariance-academic integration factor scale (black nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race(Institution)			1	7.596**	.007
Black College	101	-3.17			
White College	19	.58			

**Significant at the .01 level.

Table 22. Analysis of covariance - academic integration factor (black traditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race(Institution)			1	55.132**	.000
Black College	341	-2.61			
White College	157	1.71			

**Significant at the .01 level.

enrolled at white colleges have higher academic motivation than nontraditional students enrolled at black colleges.

Black nontraditional students

The results of an analysis of covariance, comparing black nontraditional students on academic motivation factor revealed a significant difference at the .05 level. The covariate, type of institution, was not significant. Difference in the mean is directly due to the differences in the predominant race of the institution (Table 24). The mean academic motivation factor score was higher for black nontraditional students enrolled at white colleges (-0.46) than those enrolled at black colleges (-1.48). These findings revealed higher academic motivation for black nontraditional students enrolled at white colleges when

compared to black nontraditional students enrolled at black colleges.

White nontraditional students

The analysis of covariance computed for white nontraditional students revealed a significant difference at .05 level in mean academic motivation factor scores of white nontraditional students enrolled at black and at white colleges. The mean academic motivation factor score was higher (-0.70) for white nontraditional students enrolled at white colleges than those enrolled at black colleges (-1.61). The results indicated higher academic motivation for white nontraditional students enrolled at white colleges than those enrolled at black colleges (Table 25).

Table 23. Analysis of covariance - academic motivation factor (nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race(Institution)			1	10.464**	.001
Black Colleges	141	-1.52			
White Colleges	287	-0.68			

**Significant at the .01 level.

Table 24. Analysis of covariance - academic motivation factor (black nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	3.781*	0.054
Black College	101	-1.48			
White College	19	-0.46			

*Significant at the .05 level.

Table 25. Analysis of covariance - academic motivation factor (white nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	4.609*	.033
Black College	40	-1.61			
White College	267	-0.70			

*Significant at the .05 level.

As indicated in Table 26, a significant difference at the .05 was revealed for mean academic motivation factor scores for black traditional students. The covariate was not significant for black traditional students. The mean academic motivation factor score was higher (-0.05) for black traditional students enrolled at white colleges than

for those enrolled at black colleges (-0.67). Black traditional students enrolled at white colleges had higher academic motivation, when compared to those at black colleges.

Table 26. Analysis of covariance - academic motivation factor (black traditional)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	5.587*	.018
Black Colleges	341	-0.67			
White Colleges	157	-0.05			

*Significant at the .05 level.

Social Integration Factor

Nontraditional students

When comparing nontraditional students enrolled at black and at white colleges, no significant differences were found in mean social integration factor score. Mean social integration factor scores were approximately the same for the two groups (Table A13, Appendix A).

Black nontraditional students

An analysis of covariance comparing black nontraditional students enrolled at black colleges and those at white colleges on social integration factor revealed no significant difference (Table A14, Appendix A). Mean scores for both groups were similar.

White nontraditional students

An analysis of covariance was computed to compare mean social integration factor scores for white nontraditional students. The results revealed a significant difference at the .01 level in mean social integration for white nontraditional students enrolled at black colleges and those enrolled at white colleges. The mean social integration factor score was higher for those enrolled at black colleges (1.17) than those enrolled at white colleges (.66) as indicated in Table 27. As presented in Chapter III, high scores on social integration represented low social integration. White nontraditional students enrolled at white colleges had higher social integration than those at black colleges.

Black traditional students

No significant difference was found when comparing mean social integration factor scores for black traditional

students enrolled at black and those at white colleges (Table A15, Appendix A).

Table 27. Analysis of covariance - social integration factor (white nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	13.016**	.000
Black College	40	1.17			
White College	267	.66			

**Significant at the .01 level.

Student Satisfaction

Nontraditional students

When comparing nontraditional students enrolled at black and at white colleges on student satisfaction a significant difference was found at the .01 level (Table 28). The mean student satisfaction factor score for nontraditional students enrolled at black colleges was higher (.44) when compared to that of nontraditional students enrolled at white colleges (.12). These results indicate that nontraditional students enrolled at black colleges were more satisfied with their universities than those enrolled at white colleges (see Table 28). The

covariate, type of institution, was not significant. Difference in the mean scores was directly due to the difference in the predominant race of the institution.

Table 28. Analysis of covariance - student satisfaction factor (nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race(Institution)			1	14.541**	.000
Black College	152	.44			
White College	300	.12			

**Significant at the .01 level.

Black nontraditional students

On the basis of an analysis of covariance, no significant difference was found in mean student satisfaction factor scores for black nontraditional students enrolled at black and white colleges. The mean student satisfaction factor score for black nontraditional students enrolled in black colleges was higher (.31) than those enrolled in white colleges (.20). As indicated in Table A16, Appendix A, little difference existed in the mean scores. White nontraditional students enrolled in black colleges reported more satisfaction with their institutions than those enrolled at white colleges.

White nontraditional students

The results of an analysis of covariance, comparing white nontraditional students enrolled at black colleges and at white colleges on student satisfaction factor scores, revealed a significant difference at the .01 level. The mean student satisfaction factor score for white nontraditional students enrolled at black colleges was higher (.76) than that of those (.11) enrolled at white colleges (Table 29). White nontraditional students enrolled at black colleges are more satisfied with their institutions than those enrolled at white colleges.

Table 29. Analysis of covariance- student satisfaction factor (white nontraditional)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	21.446**	.000
Black College	43	.76			
White College	279	.11			

**Significant at .01 level.

Black traditional students

Analysis of covariance revealed a significant difference for black traditional students on mean student

satisfaction factor at the .01 level. The covariate, type of institution was not significant. Mean scores for this factor were higher for black traditional students enrolled at black colleges (.34) than for those enrolled at white colleges (-0.09), as indicated in Table 30. These findings suggest that black traditional students at black colleges are more satisfied with their institution than black traditional students at white colleges.

Table 30. Analysis of covariance - student satisfaction factor (black traditional)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	29.771**	.000
Black College	336	.34			
White College	166	-0.09			

**Significant at the .01 level.

Feelings of Racial Discrimination

Nontraditional students

No significant difference was found when comparing nontraditional students enrolled at black colleges and those at white colleges on mean feelings of racial discrimination factor (Table A17, Appendix A).

Black nontraditional students

The feelings of racial discrimination factor was significant when comparing black nontraditional students enrolled at black colleges and at white colleges at the .01 level (Table 31). The covariate, type of institution, was also significant. Mean feelings of racial discrimination factor score was higher for black nontraditional students enrolled in black colleges (.33) than for those enrolled at white colleges (-0.71), as indicated in Table 31.

White nontraditional students

An analysis of covariance revealed a significant difference in mean feelings of racial discrimination for white nontraditional students enrolled at black and white colleges at the .01 level. Mean feelings of discrimination factor score for those enrolled at white colleges was higher (.19) than for those enrolled at black colleges (-0.60), as shown in Table 32. This finding indicated that white nontraditional students enrolled at white colleges had higher feelings of racial discrimination than those enrolled at black colleges. The covariate, type of institution, was not significant.

Black traditional students

On the basis of analysis of covariance, results comparing the mean feelings of racial discrimination factor score for black traditional students enrolled at black and white colleges revealed significant differences at the .01 level. The mean feeling of racial discrimination for black traditional students at black colleges was higher (.56) than those enrolled at white colleges (-0.85) (Table 33). The results reveal that black traditional students enrolled at black colleges reported higher feelings of racial discrimination than those enrolled at white colleges.

Table 31. Analysis of covariance - feelings of racial discrimination factor (black nontraditional)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	29.010**	.000
Black College	101	.33			
White College	19	-0.71			

**Significant at the .01 level.

These finding revealed that black nontraditional students enrolled in black colleges reported higher feelings of racial discrimination than those enrolled at white colleges. They further suggest that the differences in

scores can be attributed to the differences in the type of institution at which they are enrolled as well as differences in the predominant race of the institution.

Table 32. Analysis of covariance - feelings of racial discrimination factor (white nontraditional)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	53.726**	.000
Black College	40	-.60			
White College	267	.19			

**Significant at the .01 level.

Table 33. Analysis of covariance - feelings of racial discrimination factor (black traditional)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	300.533**	.000
Black College	341	.56			
White College	157	-0.85			

**Significant at the .01 level.

General Discussion of Findings

Findings of this study are discussed in the following order: black nontraditional students, white nontraditional students, and black traditional students.

Demographic Characteristics

Demographic characteristics identified for black and white nontraditional students in this study provided additional support for characteristics previously reported in the literature. Black and white nontraditional students were similar on some of the characteristics identified in the findings of this study. Both groups were primarily employed off campus, did not reside on campus, attended college full-time, had taken courses at other universities, ranked in the top quarter of their high school graduating classes, and usually had business as their major. Differences identified between the two groups were in marital status, employment status, and degree aspirations.

Based on the findings of this study, a profile of a black nontraditional student may be age 24 and over, male, single, does not reside on campus, is employed off campus, is employed full-time, have taken courses at other universities, ranked in the top half of their high school graduating class, aspires to obtain a master's degree, is

enrolled full-time, and usually has business or education as a major.

Few researchers have identified characteristics of black nontraditional students, particularly those enrolled at historically black colleges. Solomon and Gordon (1981) included historically black colleges in their work. Some findings in this study support their study. Solomon and Gordon reported more black nontraditional students to be single when compared to white nontraditional students. Findings of this study did not support lower educational aspirations as cited in the review of Kuh and Ardialo (1979); Holstrom (1973), and Solomon and Gordon (1981). Black nontraditional students more often aspired to obtain a master's degree. These findings supported those of Gurin and Epps' (1975) work that the majority of the black students enrolled at historically black colleges aspired for a graduate or professional degree.

Findings of this study also revealed a profile of a white nontraditional student; the student may be age 24 or over, male, married, does not reside on campus; is employed off campus, employed part-time, has taken courses at other universities, ranked in the top half of their high school graduating class, aspires to obtain a bachelor's degree, is enrolled full-time, and usually has business or social

sciences as a major. For white nontraditional students, little difference existed in the percentage of those who aspired for a bachelor's degree (44.6) and those who aspired for a master's degree (44.3). These findings support those of Kuh and Ardialo (1979) and Solomon and Gordon (1981). The black traditional students profile may be primarily female, reside in campus housing, is not employed, is enrolled full-time, has only taken courses at their university, aspires to obtain a master's degree, ranked in the top half of their high school graduating class, and has business as a major.

Findings in this study supported those of Solomon and Gordon (1981) in that business was often the major of of traditional and adult students. They also support the work Kuh and Ardialo (1979) in that both groups of nontraditional students were primarily male.

The differences in the findings of this study relative to full-time employment, full-time enrollment, and higher degree aspirations are demographic characteristics that should be identified and used to develop innovative programs for black and white nontraditional students. Such programs should be developed at both historically black and predominantly white colleges as adult and higher educators discover avenues to not only attract the nontraditional

student, but provide educational experiences so that the student can benefit as much as possible from the college experience. Special consideration must be given to the needs of adult students as this population continues to grow and becomes a subculture on college campuses.

Academic Characteristics

This study assessed self-reported academic characteristics using college entrance academic measures, high school rank, HSGPA, and SAT scores.

Most traditional and nontraditional students indicated that they were in the top half of their graduating class. Solomon and Gordon (1981) and Holstrom (1973) reported that nontraditional students made slightly lower grades in high school when compared to traditional students. Findings of this study did not support those findings. No significant differences were found in high school grade point averages when comparing black and white nontraditional or black traditional and black nontraditional students. However, the HSGPA for both the nontraditional and the traditional students was a B average. This finding supports the work of Solomon and Gordon (1981) that the average high school grade for both traditional and adult students was a B average.

Cumulative college grade point averages for black nontraditional students were higher for those enrolled at white colleges than those enrolled at black colleges. These differences between nontraditional and traditional students were assessed as they related to the predominant race of the university. Similar studies addressed demographic characteristic comparisons. Researchers reported that adult students perform equal to or slightly superior academically when compared to traditional students in undergraduate programs. The mean CCGPA of nontraditional students was (B to B-) and (B- to C+) for traditional students. These findings support those of Decrow (1959), Stephens and Wheeler (1969), Malin, Bray, Dougherty and Skinner (1980), and Halfter (1962).

Mean SAT scores for nontraditional and traditional students enrolled in white colleges were higher than those enrolled in black colleges; and for nontraditional students overall (954) than traditional students (820). This finding can be attributed to the minority recruitment programs for those top academic black students at predominantly white colleges. The financial situation of many historically black colleges has made it very difficult for them to be competitive with larger predominantly white

colleges and the educational and financial opportunities offered to black students through recruitment

Academic characteristic findings identified in this study revealed no need for development of special admission standards, or modification in course or degree requirements. Although the need for scheduling modifications was indicated by demographic characteristic findings. Academic capabilities as revealed in these findings substantiate that black nontraditional students, white nontraditional students, and traditional students have similar academic capabilities, academic performance, and academic achievement.

Behavioral and Attitudinal Factors

Student groups were compared on the following behavioral and attitudinal factors: interfering problems, socioeconomic status, academic integration, academic motivation, social integration, student satisfaction, and feelings of discrimination. Discussion will be organized according to each factor.

The interfering problems factor is a measure of external responsibilities and problems that affect academic achievement and academic performance. Items used to develop this factor scale were related to financial difficulties, outside problems, emotional problems and

academic difficulties. Malin, Bray, Dougherty, and Skinner (1980) stated "the performance and satisfaction of adult college students were affected not only by their background and environmental aspects, but also their external responsibilities and their goals" (p. 129). Solomon and Gordon (1981) reported that adult students expressed concern about their financial situation. They further reported that black adults reported the most concerns (Solomon & Gordon, 1981). The findings for this study did not support their work. However, no significant differences in mean interfering problems factor scores were found when comparing nontraditional students enrolled at black and at white colleges. For white nontraditional students enrolled at black colleges, the interfering problems factor scores revealed significant differences from those enrolled at white colleges.

The mean interfering problems factor scores for black traditional students enrolled at black and at white colleges revealed lower interfering problems for those enrolled at black colleges. Those enrolled at white colleges reported a large number of interfering problems that affected academic performance and achievement. Black students in white colleges have special problems that are not shared by white students (Fleming, 1984). These

findings support Fleming's assessment of problems encountered by students in black and white colleges.

The socioeconomic status factor scale includes head of household income, educational level, and occupation. Researchers reported that most nontraditional students were from low socioeconomic backgrounds (Solomon & Gordon, 1981; Cross, 1981; Kuh & Ardialo, 1979). Solomon and Gordon (1981) asserted that adult students have many financial concerns. When comparing the mean socioeconomic status (SES) factor score for white nontraditional students, no differences were found for those enrolled at white colleges or at black colleges.

Mean SES factor scores for black nontraditional students revealed no significant differences for those at black or at white colleges. The lack of significant difference in SES factor means for black nontraditional students may be attributed to the high percentage of students who work full-time and are enrolled in school full-time.

No significant difference was found between the mean SES factor scores for black traditional students enrolled at black colleges when compared to those enrolled at white colleges. The mean SES factor score was higher for black traditional students enrolled at white colleges than those

enrolled at historically black colleges. Gurin and Epps (1975) also reported differences in socioeconomic status in their study of historically black colleges.

The academic integration factor scale includes items about contact with professors, faculty member interest and relationships. A significant difference was found between mean academic integration factor scores for black traditional students enrolled at black and white colleges; and black nontraditional and white nontraditional students enrolled at black and white colleges.

Black traditional students enrolled at white colleges reported more contact with professors, felt they were more sensitive to their needs, discussed personal problems, and were satisfied with their relationship with faculty members.

Black nontraditional students enrolled at white colleges had a higher mean academic integration factor score than white nontraditional students enrolled at white colleges.

The academic motivation factor scale includes items about carefully planned and organized schoolwork, keeping assignments up-to-date and whether students work as they should in a course they do not like. This factor includes only minimal measures of academic motivation. These

measures were primarily classroom preparation or the ability to keep up. However, a significant difference was found for black and white nontraditional students enrolled at black and white colleges. Black nontraditional students enrolled at white colleges were found to have higher mean academic motivation than those enrolled at black colleges. Black nontraditional students enrolled at white colleges had higher mean academic motivation scores than those at black colleges. Mean academic motivation was higher for white nontraditional students enrolled at white colleges than those enrolled at black colleges. Overall results for nontraditional students showed those enrolled at white colleges to have higher mean academic motivation.

The social integration factor scale measures student's relationships with their peers, participation in campus organizations, extracurricular activities, and study groups. Chickering (1974) and Bean and Metzner (1985) reported low social integration for nontraditional students.

Nontraditional students enrolled at black colleges and at white colleges had similar mean scores for the social integration factor.

Black nontraditional students enrolled at white colleges and those enrolled at black colleges had similar

mean social integration factor scores. No significant difference was found when comparing black nontraditional students on social integration.

White nontraditional students enrolled at white colleges had a low mean social integration when compared to those enrolled at black colleges. This scale interpretation was reversed, low mean scores represented high social integration. This finding suggests that white nontraditional students enrolled at white colleges had higher social integration, when compared to those enrolled at historically black colleges.

Black traditional students also reported lower mean social integration factor scores than black nontraditional students. However, when comparing black traditional students enrolled at black colleges with those enrolled at white colleges, no significant difference was found in the mean social integration factor scores. Nontraditional student's mean score was (.66) when compared to black traditional students mean score (-.05).

These findings suggest that campus organizations, and extracurricular activities are not of great importance in developing programs for nontraditional students. However, in developing programs for traditional students, campus organizations and extracurricular activities are important.

The student satisfaction factor scale items includes those relative to student housing, employment, student organizations, libraries, and university's academic reputation. Solomon and Gordon (1981) reported that academic reputation was important for adult students and usually was given as the most popular reason for college choice. These researchers also reported that adult students were more satisfied than traditional students with their college experiences (Solomon & Gordon, 1981). Findings from this study revealed higher student satisfaction for white nontraditional students enrolled at black colleges and black nontraditional students enrolled at black colleges.

The feelings of racial discrimination factor scale includes items concerning recruitment efforts of minorities, sensitivity to race issues, discussion of race issues, and one item on actual feeling of being discriminated against. Mean feelings of racial discrimination were higher for black nontraditional students enrolled at black colleges, for black traditional students enrolled at black colleges, and white nontraditional students enrolled at white colleges. These findings reveal that the feelings of discrimination factor scale reflect a student's sensitivity to racial

discrimination issues, rather than feelings of being discriminated against.

Discussion of Hypotheses

Analyses of covariance with type of university as a covariate were used to test the hypotheses and sub-hypotheses in this study. All hypotheses were tested at the .05 level of significance. A brief discussion of the findings related to each hypothesis follows.

Hypothesis 1. There are no significant differences between nontraditional students enrolled at historically black colleges and those at predominantly white colleges on measures of high school grade point average (HSGPA), Scholastic Aptitude Test (SAT), and cumulative college grade point average (CCGPA) (p=.05).

No significant difference was found in mean HSGPA when comparing nontraditional students enrolled at black colleges and those at white colleges. Mean HSGPA was higher (2.92) for nontraditional students enrolled at white colleges than for those (3.12) enrolled at black colleges. Both groups mean score, however, represented a B average.

When comparing the two groups on SAT scores, a significant difference was found in mean SAT scores. The mean SAT score was higher (1010.96for nontraditional

students enrolled in white colleges, than those (839.98) enrolled in black colleges.

No significant difference was found in mean CCGPA, when comparing nontraditional students enrolled at black and white colleges. Mean CCGPA was similar for both groups. Average grade point was a B.

Based on the data, the hypothesis was accepted for HSGPA and CCGPA. However, the hypothesis was rejected for SAT scores, as a significant difference was found between mean SAT scores when comparing nontraditional students enrolled at black colleges and those at white colleges.

> 1a. There are no significant differences between black nontraditional students enrolled at historically black colleges and those at predominantly white colleges on measures of HSGPA, SAT scores, and CCGPA (p=.05)

On the basis of findings presented in this study, no significant difference was found in mean HSGPA when comparing black nontraditional students enrolled in black colleges with those enrolled at white colleges. The mean average for both groups represented a B average.

When comparing black nontraditional students on mean SAT scores, a significant difference was found. Mean SAT

scores were higher for those students enrolled at white colleges than those enrolled at black colleges.

A significant difference was found in mean CCGPA when comparing black nontraditional students enrolled at white colleges with those enrolled at black colleges. Black nontraditional students enrolled at black colleges had higher CCGPA than those enrolled at white colleges.

Therefore, the hypothesis was accepted for HSGPA. However, it was rejected for both SAT scores and CCGPA, since a significant difference was found when comparing black nontraditional students on these two measures.

1b. There are no significant differences between white nontraditional students enrolled at black colleges and those at white colleges on measures of HSGPA, SAT scores, and CCGPA.

No significant difference was found in mean HSGPA, when comparing white nontraditional students enrolled at white colleges with those enrolled at black colleges. The mean average for both groups was a B average.

On the basis of findings for this study, a significant difference in mean SAT scores for white nontraditional students was identified. White nontraditional students

enrolled at white colleges reported higher SAT scores than those enrolled at black colleges.

When comparing white nontraditional students on CCGPA, no significant difference was found. Therefore, the hypothesis was rejected for SAT scores, as a significant difference was found. However, it was accepted for HSGPA and CCGPA.

Hypothesis 2. There are no significant differences between black traditional students enrolled at black colleges and at white colleges on measures of HSGPA, SAT, and CCGPA ($p=.05$).

On the basis of findings presented in this study, a significant difference was found in mean HSGPA when comparing black traditional students enrolled in black colleges with those enrolled at white colleges. Mean HSGPA was higher for black traditional students enrolled at white colleges than those enrolled at black colleges. Mean HSGPA for both groups was a B or above.

When comparing black traditional students enrolled at black colleges and those at white colleges on SAT scores, a significant difference was found. Mean SAT scores were higher for those black traditional students enrolled at white colleges than those enrolled at black colleges.

Black traditional students enrolled at white colleges compared to those enrolled at black colleges reported higher CCGPA. Mean CCGPA was a B- for those enrolled at white colleges and a C+ for those enrolled at black colleges.

Therefore, the hypothesis was rejected for HSGPA, SAT scores, and CCGPA, as a significant difference was found in all three measures when comparing these groups.

Hypothesis 3. There are no significant differences between nontraditional students enrolled at black colleges and those at white colleges on factor scores for interfering problems, socioeconomic status, academic integration, academic motivation, social integration, student satisfaction, and feelings of racial discrimination factor scales (p=.05).

When comparing nontraditional students enrolled at black colleges and those at white colleges, a significant difference was found on the following scales: interfering problems, SES, social integration, and feelings of racial discrimination. A significant difference was found in academic integration and academic motivation when comparing nontraditional students enrolled at black colleges and those enrolled at white colleges. Mean academic

integration and academic motivation factor scores were higher for those enrolled at white colleges than compared to those enrolled at black colleges. Therefore, the hypothesis was accepted for interfering problems, SES, social integration, and feelings of racial discrimination factors. However, it was rejected for both academic motivation and academic integration factors, as a significant difference was found between nontraditional students enrolled at black colleges and those enrolled at white colleges.

Hypothesis 3a. There are no significant differences between black nontraditional students enrolled at black colleges and those at white colleges on factor scores for interfering problems, socioeconomic status, academic integration, academic motivation, social integration, student satisfaction, and feelings of racial discrimination factor scores ($p=.05$).

When comparing black nontraditional students enrolled at black colleges and those enrolled at white colleges, a significant difference was found in interfering problems, SES, social integration, and student satisfaction factor scores. A significant difference was found in academic motivation, academic integration and feelings of racial

discrimination factor scores. Mean academic integration and academic motivation factor scores were higher for black nontraditional students enrolled at white colleges when compared to those enrolled at black colleges. Mean feelings of discrimination factor score was higher for black nontraditional students enrolled at black colleges than those enrolled at white colleges. Therefore, the hypothesis was accepted for interfering problems, SES, social integration, and student satisfaction factors. However, it was rejected for academic integration, academic motivation, and feelings of racial discrimination factors as there were significant differences when comparing the two groups.

> Hypothesis 3b. There are no significant differences between white nontraditional students enrolled at black colleges and those at white colleges on mean factor scores for interfering problems, socioeconomic status, academic integration, academic motivation, social integration, student satisfaction, and feelings of racial discrimination factor scales ($p=.05$).

When comparing white nontraditional students enrolled at black and white colleges, no significant difference was

found for SES and academic integration factor scales. A significant difference was found in interfering problems, academic motivation, social integration, student satisfaction and feelings of racial discrimination factors. Mean interfering problems factor was higher for white nontraditional students enrolled at white colleges when compared to white nontraditional students enrolled at black colleges. Mean academic motivation and feelings of racial discrimination factors were higher for white nontraditional students enrolled at white colleges when compared to those enrolled at black colleges. However, mean social integration and student satisfaction were higher for white nontraditional students enrolled at black colleges when compared to those enrolled at white colleges. Therefore, the hypothesis was accepted for SES and academic integration factor scales. It was rejected for interfering problems, academic motivation, social integration, student satisfaction, and feelings of racial discrimination.

4. There are no significant differences between black traditional students enrolled at black and at white colleges on factor scores for interfering problems, socioeconomic status, academic integration, academic motivation, social integration, student satisfaction,

and feelings of racial discrimination factor scales ($p=.05$).

When comparing black traditional students enrolled at black colleges and those at white colleges, no significant difference was found for SES and social integration factors. A significant difference was found in mean interfering problems, academic integration, academic motivation, student satisfaction factors, and feelings of racial discrimination factor scores. Mean interfering problems, academic integration, and academic motivation factors were higher for those enrolled at white colleges when compared to those enrolled at black colleges. Mean student satisfaction and feelings of racial discrimination factors were higher for those students enrolled at black colleges when compared to those enrolled at white colleges. Therefore, this hypothesis was accepted for SES and social integration factors. However, it was rejected for interfering problems, academic integration, academic motivation, student satisfaction, and feelings of racial discrimination factors.

Conclusions

Findings in this study demonstrate differences in demographic, academic, behavioral, and attitudinal

characteristics between black and white nontraditional students and black traditional students who attend white colleges and those who attend black colleges. More importantly, the predominant race of the institution the nontraditional student attends has an affect on their academic, behavioral, and attitudinal characteristics. These findings contribute to the body of knowledge on characteristics of black nontraditional students. Characteristics of black nontraditional students identified by this study did not parallel those of white nontraditional students. Based on these data, it would be difficult to develop one profile of the nontraditional student. Any profile developed for adult students should be used cautiously, as it is likely to mask the diversity that exists within this student group. These data, however, are important in helping develop programs to meet the needs and expectations of this student population.

The differences found in personal, behavioral, and attitudinal characteristics suggest different needs and expectations that are not being adequately met by traditional undergraduate programs. Adult and higher education institutions need to develop programs that strengthen student satisfaction and achievement. Programs must go beyond degree requirements and typical student

service programs. They need to focus on helping adult students participate in developing of their own interests, and creating realistic expectations not only from classroom activities but from other campus activities that facilitate continuous growth.

CHAPTER V. SUMMARY AND RECOMMENDATIONS

The primary purpose of this study was to investigate the similarities and differences between black and white nontraditional students and black traditional students enrolled in predominantly white and historically black colleges on demographic, academic, personal, behavioral, and attitudinal characteristics. More specifically, an attempt was made to accomplish the following objectives: 1) to compare black and white nontraditional students enrolled in black and in white colleges on academic, personal, behavioral and attitudinal characteristics; 2) to compare black traditional and black nontraditional students enrolled in black and white colleges on academic, personal, behavioral, and attitudinal characteristics.

The 'Student Opinion Survey' was developed and used to collect data by the Tennessee Higher Education Commission comparing black and white student's college achievement and experiences. The questionnaire contained 109 items concerning student performance, behavior and attitudes, study habits, socioeconomic status, demographic characteristics, personal problems, educational goals, feelings of discrimination, academic ability, preparation and academic performance.

Subjects for this study were selected from a larger sample of college students, whose name appeared on the Fall 1982 enrollment list at one of the selected colleges and universities located in ten southern and eastern states. Six institutions were selected from each of the following categories: 1) predominantly white large, public universities; 2) historically predominantly black, public universities; 3) predominantly white, regional, public universities; 4) predominantly white, private universities; and 5) historically predominantly black, private universities.

The nontraditional sample group included those students over age 24. They were divided into smaller groups according to race and the predominant race of the institution they attended. The traditional student group included all black students under age 24, and divided into smaller groups according to the predominant race of the institution they attended. These two groups included 451 and 532, respectively.

Data from the Student Opinion Survey were analyzed as follows: 1) factor analysis was computed by THEC to develop seven factor scales with Cronbach's Alpha Reliability Coefficients; 2) frequencies and percentages

were obtained for all items; 3) Analysis of Covariance were computed for all factor scales.

An analysis of the demographic data indicated that two-thirds (66%) of the sample were age 24 and older. Fifty-one percent of the nontraditional student sample were male. The black traditional student group, however were nearly two-thirds (65.1%) female. Nearly one-half of the nontraditional students (43%) were married. Forty-seven percent of the black nontraditional student were single as compared to 28.4% of the white nontraditional students. These differences resulted in one-third (34%) of the total group being single. Ninety-five percent of the black traditional students were single. Over two-thirds (68%) of the nontraditional student group lived in private homes or apartments, as compared to (59%) of the black traditional students who lived on campus. More than one-half (56%) of the nontraditional students worked off campus. However, 20.8% of the white nontraditonal students worked 40 or more hour per week as compared to 32.3% of the black nontraditional students. Thirty-four percent of the white nontraditional students did not work or only worked occasional jobs, as compared to 45.1% of the black traditional students, and only 17.2% of the black nontraditional students.

Degree aspirations for nontraditional students, although reported by researchers as lower than traditional students, were indicated by the results of this study as being higher. Forty-four percent of the white students reported they aspired to a bachelor's degree and a master's degree. Black nontraditional students reported they aspired for a master's degree. Black traditional students aspirations were similar to those of black nontraditional students, as 45.9% aspired to a master's degree and 20.4% a bachelor's degree. Two-thirds (66) of the nontraditional students were enrolled full-time. Ninety-six percent of the black traditional students were enrolled full-time.

Rank in high school graduating class revealed that 72 of the nontraditional students were in the top half of their graduating class, as compared to 80.7% of the black traditional students.

Academic characteristics were compared. An analysis of covariance controlling for type of institution by predominant race of the institution revealed significant differences in mean SAT scores, HSGPA, and CCGPA. Nontraditional students enrolled at black colleges and those at white colleges were compared on the three academic variables.

SAT scores were significantly different; higher mean SAT scores were reported for those enrolled at white colleges when compared to those enrolled at black colleges. Significant differences were also found in mean SAT scores for black nontraditional students enrolled at black colleges and those at white colleges. Those enrolled at white colleges had higher SAT scores when compared to those at black colleges. When comparing white nontraditonal students enrolled at black colleges with those enrolled at white colleges, significant differences were also found. Mean SAT scores were higher for those enrolled at white colleges than those enrolled at black colleges. Black traditional students enrolled at white colleges also reported higher SAT scores than those enrolled at black colleges.

Significant differences were revealed in mean CCGPA for black nontraditional and black traditional students enrolled at black colleges and those at white colleges. Black nontraditional and black traditional students enrolled at white colleges had higher CCGPA when compared to those at black colleges.

Significant differences were revealed for nontraditional students on the following factor scales:

1) academic integration and 2) academic motivation. These findings revealed higher mean factor scores on these two factors for those enrolled at white colleges than those enrolled at black colleges.

Black nontraditional students were significantly different on the following factors: 1) academic motivation, 2) academic integration, and 3) feelings of racial discrimination. Mean academic integration and academic motivation factor scores were higher for black nontraditional students enrolled at white colleges than for those enrolled at black colleges. Mean feelings of discrimination were higher for those enrolled at black colleges than for those at white colleges.

Analyses of covariance comparing white nontraditional students on behavioral and attitudinal characteristics revealed significant differences on the following factors: 1) interfering problems, 2) academic motivation, 3) social integration, 4) student satisfaction, and 5) feelings of racial discrimination. Mean interfering problems, academic motivation and feelings of discrimination factor scores were higher for those enrolled at white colleges when compared to those enrolled at black colleges. Social integration and student satisfaction factor scores were

higher for those enrolled at black colleges when compared to those enrolled at white colleges.

Black traditional students enrolled at white colleges, when compared with those at black colleges, revealed significant differences in 1) interfering problems, 2) academic integration, 3) academic motivation, 4) student satisfaction and feelings of racial discrimination factor scales. Mean academic motivation, academic integration, and interfering problems were higher for black traditional students enrolled in white colleges than those enrolled in black colleges. Student satisfaction and feelings of discrimination were higher for black traditional students enrolled at black colleges when compared to those enrolled at white colleges.

When the hypotheses for this study were tested, findings indicated that:

(1) There were significant differences in SAT scores with respect to nontraditional student and predominant race of the institution they attended. Therefore, the hypothesis was rejected for SAT scores. The hypothesis were not rejected for CCGPA and HSGPA, as no significant differences were found for nontraditional students attending either black or white colleges.

(1a) There were significant differences in SAT scores and CCGPA with respect to the race of the nontraditional student and the predominant race of the institution. Therefore, the hypothesis was rejected for SAT scores and CCGPA, and was not rejected for HSGPA, as no significant difference was found in mean HSGPA for either group.

(1b) No significant difference was found in mean CCGPA and HSGPA, when comparing white nontraditional students enrolled at black colleges and those at white colleges. Significant differences were found in mean SAT scores for white nontraditional students. Therefore, the hypothesis was rejected for SAT scores and not rejected for CCGPA and HSGPA.

(2) There were significant differences in mean SAT scores, CCGPA, and HSGPA when comparing black traditional students enrolled at black colleges and those at white colleges. Therefore, the hypothesis was rejected for all measures.

(3) When comparing nontraditional students enrolled at black colleges and at white colleges, significant differences in mean factor scores were found for the following factor scales: 1) academic integration and 2)

academic motivation. Therefore, the hypothesis was not rejected for academic motivation and academic integration.

(3a) There were significant differences between black nontraditional students enrolled at black and white colleges on the following factor scales: 1) academic integration, 2) academic motivation, and 3) feelings of racial discrimination. Therefore, the hypothesis was rejected for academic integration, academic motivation, and feelings of racial discrimination.

(3b) There were significant differences revealed when comparing white nontraditional students enrolled at black colleges and those at white colleges. Significant differences were found in 1) interfering problems, 2) academic motivation, 3) social integration, 4) student satisfaction, and 5) feelings of racial discrimination. Therefore, the hypothesis was rejected for interfering problems, academic motivation, social integration, student satisfaction, and feelings of racial discrimination.

(4) There were significant differences revealed when comparing black traditional students enrolled at black colleges and those at white colleges. Significant differences were found in 1) interfering problems, 2)

academic motivation, 3) academic integration, 4) student satisfaction, and 5) feelings of racial discrimination. Therefore, the hypothesis was rejected for interfering problems, academic motivation, social integration, student satisfaction and feelings of racial discrimination.

Recommendations

Based on this study, the following recommendations are being made for nontraditional students enrolled in undergraduate programs:

(1) Develop undergraduate programs for black nontraditional students at historically black and predominantly white universities that meet their needs and experiences. Make use of weekend college format and creative scheduling programs. Even though some alternative formats are available, an increased sensitivity to work schedule, single parent persons and other time demands suggest the need for other opportunities.

(2) Conduct local characteristic and need studies to adjust programs to circumstances and conditions surrounding the students environment and responsibilities. These data will provide significant information when educators are modifying programs and developing creative formats, e.g., credit for life experiences. Only when there is a complete

understanding of the nontraditional clientele can programs developed for them be effective.

(3) Data such as these create an awareness of available opportunities available for nontraditional students presented in this study can be of potential value in attracting the nontraditional clientele to colleges.These data can be used to describe successful experiences for nontraditional students who have completed degree programs.

(4) Consider redefining and creating new services and resources for this undergraduate subculture that appropriately meet their needs.

(5) Initiate seminars and publications for faculty and staff to develop a better understanding of nontraditional students enrolled in undergraduate school and to help them gain a better knowledge about academic characteristics and academic performance and achievement.

Recommendations for Further Research

(1) Since these data are based on 1982 data, a 1987 study should be conducted to identify characteristics of nontraditional students presently enrolled at undergraduate institutions.

(2) Factor scales were constructed and defined as representations of feelings of discrimination and academic

motivation factors that measured other aspects different than those identified. Therefore, factor scales should be reconstructed to identify sensitivity to racial discrimination of minorities and classroom preparation if this study is replicated.

(3) Because demographic differences were found between black and white nontraditional students, campus-based research studies should be conducted to enable local programs to address the needs and expectations of currently enrolled nontraditional and potential nontraditional students.

(4) Further research needs to be conducted to develop more consistent data regarding characteristics, academic performance, academic attitudes, school, and career aspirations of different populations of nontraditional students enrolled at historically black and predominantly white colleges.

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ACKNOWLEDGMENTS

The completion of this research and degree was made possible by the wonderful blessings of our Father, Jesus Christ, and the assistance and support of so many people. This study is dedicated to my daughter, whose patience, encouragement, understanding, and love were so important through every step of my degree program. Her many sacrifices and 'tomorrows' will always be appreciated. My most sincere thanks and love for being my inspiration.

The writer is deeply indebted to Drs. Larry Ebbers, and Irene Beavers as co-major professors for their guidance, tolerance, support, and encouragement throughout every stage of this research and the degree program. Sincere appreciation is expressed to Drs. Nettles, Netusil, Ralston, and Mulford for their invaluable assistance throughout this research and degree program.

My sincere appreciation is expressed to my family for their support, love, and financial assistance. Special thanks to my parents, Mr. and Mrs. Willie J. White, Jr. My sincere gratitude to my brothers and sisters for the love and encouragement shared with both my daughter and I during this degree program.

Special thanks are also due to Darlette Meekins and Charles Ramsey for their undying faith, encouragement,

guidance, and friendship. They have had an immeasurable impact on my studies.

Others deserving the writer's gratitude are: Drs. Fred Gilbert, Barbara Woods, Audrey Anderson, Daniel Robinson, John Wilson, John Rickicki, Mr. Hinfred McDuffie, Scott Mitchell, Michael Boatwright, and Ms. Daphanne Thomas.

In conclusion, the writer expresses love and many thanks to Jeff Beamon, who stood by her through good and bad and continued to push, encourage, and support her throughout this research.

APPENDIX A: TABLES

Table A1. Analysis of covariance for high school grade point average (nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	1.263	.262
Black College	146	4.12			
White College	296	3.92			

Table A2. Analysis of covariance for high school grade point average (black nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	.310	.579
Black College	108	3.62			
White College	20	4.13			

Table A3. Analysis of covariance for high school grade point average (white nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	0.369	.544
Black College	37	4.23			
White College	276	3.92			

Table A4. Analysis of covariance for cumulative college grade point average (nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	.755	.385
Black College	146	4.25			
White College	296	4.41			

Table A5. Analysis of covariance for cumulative college grade point average (white nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	1.937	.165
Black College	37	3.87			
White College	276	4.30			

Table A6. Analysis of covariance for interfering problems factor (nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	1.084	.176
Black College	300	-.1283			
White College	152	-.0269			

Table A7. Analysis of covariance for interfering problems factor (black nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	.803	.372
Black College	109	.3099			
White College	21	.1257			

Table A8. Analysis of covariance for socioeconomic status factor (nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	.554	.457
Black College	106	-.59			
White College	280	-0.55			

Table A9. Analysis of covariance for socioeconomic status factor (black nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	.098	.755
Black College	17	-2.24			
White College	71	-1.99			

Table A10. Analysis of covariance for socioeconomic status factor (white nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	.463	.497
Black College	35	-0.64			
White College	263	-0.45			

Table A11. Analysis of covariance for socioeconomic status factor (black traditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	3.703	.055
Black College	289	-1.12			
White College	139	-0.94			

Table A12. Analysis of covariance for academic integration factor (white nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	.009	.926
Black College	40	-0.35			
White College	267	-0.09			

Table A13. Analysis of covariance for social integration factor (nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	.005	.945
Black College	141	0.65			
White College	287	0.66			

Table A14. Analysis of covariance for social integration factor (black nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	.408	.534
Black College	101	0.45			
White College	19	0.64			

Table A15. Analysis of covariance for social integration factor (white nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	.369	.544
Black College	37	4.12			
White College	276	3.92			

Table A16. Analysis of covariance for student satisfaction factor (black nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	.098	.755
Black College	71	0.199			

Table A17. Analysis of covariance for feelings of racial discrimination factor (nontraditional students)

Grouping	Number	Mean	Df	F Value	F Prob.
Predominant Race (Institution)			1	1.478	.225
Black College	141	0.06			
White College	287	0.13			

APPENDIX B: INSTRUMENT

Student Opinion Survey

We need your help! Your university has agreed to participate in our study of how students are affected by their college experiences. The administration provided us with your name as one of 300 randomly selected undergraduate students at your school. The study is being conducted by the Tennessee Higher Education Commission, and is funded by grants from the Ford Foundation and Southern Education Foundation. Your responses will help us identify ways that faculty and administrators can make college a more meaningful and satisfying experience for students.

It is important that you answer each question in a straightforward and honest way. Your responses will be held in the strictest professional confidence, and all results will be presented in group form only. NO STUDENT WILL BE INDIVIDUALLY IDENTIFIED. We need to receive input from as many students as possible, and your responses are crucial.

We appreciate your cooperation in completing the questionnaire.

THANKS!

APPENDIX C: FACTOR ANALYSIS

	Correlation with Factor	Cronbach's Alpha Reliability
Academic Motivation		
1. I see to it that my schoolwork is carefully planned and organized. (1=almost always, 5=rarely)	-0.62	
2. Unless I really like a course, I don't work as I should. (1= almost always, 5=rarely)	0.49	
3. I keep my assignments up to date. (1 = almost always, 5=rarely)	-0.57	0.66
Academic Integration		
1. There is very little contact between professors and students outside the classroom. (1=strongly agree, 5= strongly disagree)	0.61	0.83
2. Most faculty members here are sensitive to the interests, needs, and aspirations of students. (1= strongly agree, 5=strongly disagree)	-0.61	
3. At least one faculty member here has a strong impact on my intellectual development. (1=strongly agree, 5=strongly disagree)	-0.45	
4. Faculty members here are good teachers. (1=strongly agree, 5=strongly disagree)	-0.48	
5. If a student seems to be doing poorly, this university goes out of its way to help the student stay in school. (1=strongly agree, 5= strongly disagree)	-0.52	

	Correlation with Factor	Cronbach's Alpha Reliability
6. It is easy to develop close relationships with faculty members on this campus. (1=strongly agree, 5=strongly disagree)	-0.77	
7. How often have you socialized informally with a faculty member? (1=very often, 5=almost never)	-0.46	
8. How often have you discussed career plans and ambitions with a faculty member? (1=very often, 5=almost never)	-0.48	
9. How often have you discussed personal problems and concerns with a faculty member? (1=very often, 5=almost never)	-0.48	
10. Are you satisfied with the faculty-student relations? (1=very satisfied, 5=very dissatisfied)	-0.71	
Feelings of Racial Discrimination		
1. This institution makes an effort to attract students of diverse ethnic backgrounds. (1=strongly agree, 5=strongly disagree)	0.35	0.70
2. I often feel discriminated against because of my race by faculty members on this campus. (1=strongly agree, 5=strongly disagree)	-0.75	
3. There is administrative support of minority group organizations and programs on this campus (1=strongly agree, 5=strongly disagree)		
4. There is little or no racial discrimination on this campus. (1=strongly agree, 5=strongly disagree)	0.74	

	Correlation with Factor	Cronbach's Alpha Reliability
5. Faculty members on this campus are sensitive to issues that are important to my race. (1=strongly agree, 5=strongly disagree)	0.57	
6. I often feel discriminated against by students on this campus whose race is different than my own. (1= strongly agree, 5=strongly disagree)	0.65	
7. There is open discussion of racial issues on this campus. (1=strongly agree, 5=strongly disagree)	0.36	
8. The administration on this campus discriminates against students of race. (1=strongly agree, 5=strongly disagree)	-0.75	
Student Satisfaction		
1. Are you satisfied with the student housing at your university? (1= very satisfied, 5=very dissatisfied)	-0.43	0.74
2. Are you satisfied with your university's academic reputation? (1=very satisfied, 5=very dissaatisfied)	-0.58	
3. Are you satisfied with the quality of classroom instruction at your university? (1=very satisfied, 5=very dissatisfied)	-0.42	
4. Are you satisfied with the variety of courses offered at your university? (1=very satisfied, 5=very dissatisfied)	-0.58	
5. Are you satisfied with the employment services at your university? (1=very satisfied, 5=very dissatisfied)	-0.40	

	Correlation with Factor	Cronbach's Alpha Reliability
6. Are you satisfied with the student organizations at your university? (1=very satisfied, 5=very dissatisfied)	-0.42	
7. Are you satisfied with the administration at your university? (1=very satisfied, 5=very dissatisfied)	-0.49	
Interfering Problems		
1. I have done as well academically at this university as I thought I would. (1=strongly agree, 5= strongly disagree)	-0.41	
2. Have you experienced emotional problems since enrolling in college? (yes or no)	0.42	
3. Have you experienced academic difficulty since enrolling in college? (yes or no)	0.55	
4. Have you experienced financial difficulties since enrolling in college? (yes or no)	0.56	0.61
5. Problems outside of school cause me to neglect my schoolwork? (yes or no)	0.43	
6. How difficult is it for you to finance your college education? (1=not difficult, 5=very difficult)	0.47	
Socioeconomic Status (SES)		
1. Parents' education	0.71	0.85
2. Parents' income	0.73	
3. Parents' occupation	0.86	

	Correlation with Factor	Cronbach's Alpha Reliability
Social Integration		
1. It has been difficult for me to meet and make friends with other students. (1=strongly agree, 5=strongly disagree)	0.40	
2. How often have you participated in activities with other students since enrolling in college? (1=very often, 5=almost never)	-0.71	
3. How often have you attended a meeting of a club, organization, or student government group since enrolling in college? (1=very often, 5=almost never)	-0.63	
4. How often have you studied with other students since enrolling in college? (1=very often, 5=almost never)	-0.41	0.65
5. How often have you participated in some art, drama, or music activity on campus since enrolling in college? (1=very often, 5=almost never)	0.38	
6. How often have you sat around in the student center talking with other students since enrolling in college? (1=very often, 5= almost never)	-0.36	