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Elaine Patterson Walker

Iowa State University

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Factors that contribute to black students retention and graduation at Iowa State University

Walker, Elaine Patterson, Ph.D.

Iowa State University, 1992

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Factors that contribute to black students
retention and graduation at Iowa State University

by

Elaine Patterson Walker

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 (Higher Education)

Approved:
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For the Education Major
Signature was redacted for privacy.
For the Graduate College

Iowa State University
Ames, Iowa

1992
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CHAPTER I. INTRODUCTION

Low retention and graduation rates of black students attending predominantly white institutions merit great concern. Although there are 1,130,000 black students enrolled in higher education today (Chronicle of Higher Education Almanac, 1991), their retention and graduation rates have sustained the greatest lost among the rates of minority groups. The College Board (1987) predicted that less than half of the black students on predominantly white campuses would graduate. Relative to white students, black students have lower persistence rates, lower academic achievement levels and are less likely to enroll for an advanced degree (Allen, 1988). Black students have a 71% non-completion rate in upper four year institutions compared with a 66% non-completion rate for Hispanics, a 65% rate for Native American Indians, a 55% rate for whites, and a 47% rate for Asian Americans (Arbeiter, 1986).

The number of bachelor's degrees awarded to black and other minority students continues to be far smaller than societal needs and social justice demands (Ikenberry, 1984). The dwindling black presence on many college campuses seems to indicate that despite legislative acts and judicial decisions, the national goal of providing ethnic minorities with equal access to quality institutions of higher education and opportunities for academic success has yet to be accomplished.
These low retention and graduation rates, coupled with high attrition rate, poses a serious threat to the educational gains made over the past decades.

Purpose of the Study

The purpose of this study is to examine why the retention and graduation rates are lower for black students at Iowa State University than other groups. It is necessary that the controllable and uncontrollable factors be identified as a first step toward developing effective activities, methods, and programs to reduce the high rates of withdrawal of black students enrolled at Iowa State University. It can be assumed that if the problem is left unattended, the situation will only worsen.

Historical Background

Historically, blacks have placed a great deal of emphasis on educational attainment. Black leaders, activists and scholars have long advocated that the road to both individual mobility and group competitiveness (if not liberation) was paved with education (Smith, 1989). Blacks have often been excluded from higher education due to the crippling historical burden, peculiar set of attitudes towards learning and lack of confidence about the possibilities of intellectual and
scientific achievement lodged in the emotional core of blacks in pursuit of a postsecondary education.

To better comprehend why it took so long historically for change to occur, one must look at the social values and norms of the majority of society, policies and exclusions, values and goals of academic institutions, all of which were the basis of institutional resistance to efforts to increase black student representation. The following chronology of race relations reflects the evolving degrees of access that blacks have experienced in higher education, starting with the institution of slavery that prescribed the nation's education and social policy towards blacks.

Prior to the Civil War, the southern states did not allow slaves to receive an education. Many southern states established laws prohibiting slaves from being educated. When blacks were provided with schools in the north, terms were often shorter, buildings and facilities were often inferior to those of white schools and teachers were often paid less and were less prepared than white teachers.

During the two year period from 1861-1863, hundreds of schools were established in black regiments and contraband camps. Blacks attended what was then known as private Negro Colleges or public colleges that was established after the Morrill Act of 1890. Although the second Morrill Act in 1890 established schools for blacks, the buildings were often
inferior to their white counterparts (Fleming, 1984). Occasionally, a few institutions such as Berea College in Kentucky and Oberlin College in Ohio admitted blacks on a selective basis. However, northern free blacks and white northern missionaries who comprised the abolitionist movement resulted in the establishment of the first three black colleges by the end of the Civil War. These institutions included Wilberforce University in Ohio and Lincoln University and Cheney College in Pennsylvania (Bowles and Decosta, 1971). According to Blackwell (1981), between 1854 and 1952, some 123 institutions of higher education were established to serve black students who did not have access to white institutions because of *de jure* and *de facto* discrimination.

As Reconstruction began in 1865, attention was given to the responsibility of the federal government to provide educational programs for newly emancipated blacks. The responsibility was implicit in President Lincoln's Emancipation Proclamation of September 22, 1862, the Fourteenth Amendment in 1868 which assured "due process" and the Fifth Amendment in 1870 which extended the franchise to black males (Blackwell, 1981). The government's role in accelerating access to education for blacks was made explicit in 1865 with the establishment of the Freeman's Bureau. The agency used its authority to found Howard University in 1867 as the only federally sponsored college or university for blacks in the United States (Blackwell, 1981).
The majority of black colleges founded during the reconstruction period (1865-1877) were established by or with the assistance of white philanthropists who committed themselves to educational advancement of four million newly freed slaves and about one-half million freed blacks classified as "free men of color" prior to the Civil War (Blackwell, 1981). For many years such facilities were separate, but not equal.

The first ex-slaves were faced with the challenge of learning the value of self worth and economic self sufficiency in separate institutions from their white counterparts (Fleming, 1981). Many whites held the belief that segregated education was "the key to peace and harmony between the races and that blacks should devote themselves to learning agriculture, mechanics, and domestic services" (Fleming, 1981).

A new economic and political approach was taken to the "separate but equal" education following the passing of the Plessy v. Ferguson U.S. Supreme Court ruling of 1896. This case clearly established the principle of separate-but-equal regarding all aspects of American life. Under this ruling, states were not mandated the rudimentary components of an integrated and desegregated society. In fact, they were permitted to rigidify separate structures since they had only to satisfy the mandate of establishing separate facilities that
could be classified equal (Blackwell, 1981). The educational
gains made by blacks were all but eliminated by the *Plessy*
decision.

It was not until the 1930s that the National Association
for the Advancement of Colored People (NAACP) called for the
dismantling of the separate but equal system. Between 1935 and
1954, the NAACP challenged the doctrine in five cases argued
before the Supreme Court. The cases all involved black
plaintiffs who were trying to gain admission to segregated white
schools. The five cases were *Maryland vs Murray*, (1935);
*Missouri ex rel Gaines vs Canada*, (1938); *Sipuels vs. Board of
Regents of the University of Oklahoma*, (1948); *Sweat vs Painter*,
(1950); and *McLauren Oklahoma Regents*, (1950). In winning all
five cases, the NAACP established precedence for the landmark
*Brown vs the Board of Education, Topeka Kansas*, (1954) decision
(Fleming, 1976). The Brown ruling invalidated the famous
*Plessey vs Furgerson* of 1896, mandating the desegregation of the
nation's public and secondary schools created and maintained by

According to Fleming (1981) the Brown decision created
political dilemmas for white proponents of racial segregation
and for blacks who had successfully challenged the separate but
equal doctrine. The Brown decision placed the federal
government on the side of those who saw segregation as evil and
provided them with hope (Fleming, 1976). The illegalization of
segregation in education resulting from the Brown decision prompted some white institutions to adopt such cliches and slogans as "equal educational opportunity" (Anderson, 1988). Nevertheless, by 1964, 60% of the black students in college were still enrolled in Black colleges. As the courts ruled that segregation in public schools was illegal, blacks began to apply and demand admission to exclusive white institutions in large numbers. Equal education opportunity was mandated if not guaranteed by Title VI of the 1964 Civil Act and Title VII, these Acts discouraged all forms of discrimination within public and private institutions; these acts were also mandated in state and local governments as well (Wilson and Melendez, 1988).

In the wake of favorable court decisions, civil rights activities and outreach programs, many colleges began experimenting with minority admission programs, special recruitment programs, and even the adoption of black colleges by white colleges as sister institutions for the purpose of faculty exchanges. Black students across the United States began demand implementation of some, if not all the aforementioned changes.

The education that these institutions offered black students was supposed to broaden their minds, liberate them from the shackles of academic and economic poverty, and provide them upward mobility in society. Such promises led many blacks to campuses who were ill prepared and who, in some instances had no idea of the complexities that would face them once they had
arrived. On some campuses, white faculty and staff sought to be accommodating; on other campuses, they stood silently by as the institutions became a revolving door for the many black students who enrolled but failed to graduate.

As a result, administrators in higher education often discuss the need to increase black enrollment, retention and graduation rates, employ additional black faculty and administrators, and add courses to the curriculum that reflect the diversity of the student population (Wilson and Justiz, 1988). However, the irony of this is that little has changed. To judge by the low retention and graduation rates, the status of black students on predominantly white campuses continues to deteriorate by every standard used for measurement.

Contemporary Background

Blacks who enter college experience greater difficulty than any other group completing their studies for a degree. Only 42% of minority students entering college complete their degrees, compared with nearly 60% of white students (Thompson and Fretz, 1991). For many black students who entered an undergraduate program between 1972 and 1982, the combined retention and graduation rate after four years ranged from 41% for the entering class in 1972 down to 15% for the class entering in 1982 (National Center for Educational Statistics,
Since the mid-1970s, the enrollment of all minorities in higher education has increased except for blacks. In fact, college attendance rates and graduation rates actually declined in the early 1980s, despite an increase in the total number of black high school graduates (Keller, 1988). Less than 21% of these first-time, full time students enrolling in college in 1980 actually graduated in 1984. In summary, 80% did not graduate. In 1985, 28% of whites between the ages of 18 and 24 were enrolled full-time in college compared with 19% of 18 to 24 year old black students (U.S. Bureau of Census, 1987). White students, on the other hand, represented 78% of the U.S. population and accounted for 80.3% of the enrollment in higher education (Fleming, 1984). Whereas 50.1% of the white newly enrolled freshman in 1981 continued to be enrolled or had graduated by 1985, only 32.1% of black students had done so.

According to High School and Beyond (1987), a longitudinal study, as cited in 1988 by American Council on Education (ACE) blacks who entered college finished at a much lower rate than did whites. The study examined postsecondary activities for blacks, whites, Hispanics, and Native American Indians. By spring 1986, 44.9% of all black students entering a public four-year college and 51.9% of those entering an independent institution had received a bachelor degree. Six years after entering a public four year institution, only 25.6% of the Hispanics and blacks had received a bachelor's degree. The
equivalent for whites was 48%. The study also found that the corresponding completion rates for independent institutions were slightly higher. Almost 56% of white students entering an independent college or university completed their degree within six years. The completion rate for blacks was 28.5%, which was slightly greater than for Hispanics at 26.8%. According to the American Council on Education (ACE, 1988), from 1976 to 1987 the number of blacks earning bachelor's degrees fell 4.3% overall and 12.2% for black males (ACE, 1988).

The decline in the percentage of black students can be seen most dramatically in the drop of enrollment of black men. Although the total male enrollment increased by slightly more than 90,000 students between 1976 and 1985, enrollment of black men dropped by 7.0% since 1976" (ACE, 1988, p. 3). Mow and Nettles (1990) reported, moreover, that blacks comprised about 9% of the collegiate enrollment in 1987 and received about 6.5% of the bachelor degrees awarded that year. In comparison, white students accounted for 78% of the collegiate population and for 84% of the degrees awarded during that time.

The 1991 Ninth Annual Status Report on Minorities in Higher Education prepared by the American Council on Higher Education trends with respect to degree attainment found:

Blacks made little progress in increasing their degree award between 1987 and 1989. A marginal gain of 2.6 percent in baccalaureate degrees awarded was the largest increase during the two
year period. Although small, these gains are the first blacks have experienced in degree awards at the bachelor's level since the late 1970s. However, these gains did not offset the degree losses the group suffered during the 1980s. The number of bachelor degrees black received remained far below corresponding figures for 1981. Blacks were successful in stopping the downward slides in degrees awarded at this time (p.4).

Despite the low retention and graduation rates, black students continue to attend predominantly white institutions. For many black students a college education is perceived as a status symbol, a measure of academic achievement, and the beginning of professional and monetary opportunity (Smith, 1989). A poll taken in 1991 revealed that 86% of blacks believe that it is important to earn a college degree in order to get a job or advance in a career, compared to 72% of whites and 62% of Hispanics (Robinson, 1990).

Statement of the Problem

Black students on predominantly white campuses continue to represent the population obtaining the fewest number of bachelor degrees. This study will attempt to identify the factors significant in encouraging or hindering retention and graduation at Iowa State University. It will also identify those factors basically uncontrollable by the university, i.e. fixed factors involving the student academic history. Finally it will
identify those factors over which the university might exert some control, i.e. non-fixed factors involving the students' college experience.

Iowa State University, in comparison to similar institutions, may be considered relatively successful given the graduation rates cited for black and white students. However, if the goal is to have black students experience the same level of academic progress, retention and rate of graduation as non-minority students, it has not been successful (Appendix A). A study of the enrollment patterns and persistence of 3,977 students who entered Iowa State University as new freshmen in the fall 1984 revealed that 61% had received a degree from Iowa State University within 6 years and nearly 4% were still enrolled the fall 1990. This same study found that by the fall of 1989 nearly 60% of the 125 black students enrolled at the university in the fall of 1984 left without a degree. Approximately 40% of the black freshmen left the university before the beginning of their second year. Moreover, only 29.8% of blacks had graduated within five years after entry, compared with 67.1% for all freshmen (Institutional Research, 1990). Clearly, black students who enter Iowa State University are less likely to persist and graduate than are others. However, the study from the Office of Institutional Research did not provide any insight into the causes of high black student attrition and thus did not develop solutions for the problem.
To obtain higher retention and graduation rates, factors adversely affecting black students must be identified and controlled. This is particularly important if, as Hodgkinson (1985) predicts, by the year 2000, one in every three people in the United States will be non-white. Hodgkinson maintains further that "the growth in the minority population will change the (education) system faster than anything except a nuclear war" (p.5). Disregard for the aforementioned problem will have serious implications for social and race relations, not only in higher education, but also throughout society (Siggelkow, 1991).

Pascarella (1986) suggests that it is impossible to propose solutions that successfully address the issue of retention and graduation at a particular institution without first understanding the dynamics of student persistence or withdrawal behavior that are unique to the institution. The researcher concurs that before any actions can be taken, the factors contributing to low retention rates and, conversely, successful graduation of black students must be determined. Because of the disparity between black and white students with respect to retention and graduation, there is a need for viable institutional responses to the low retention and graduation rates of black students. If whites continue to enter colleges at an increased rate and blacks continue to make such little progress, the gap for the two groups will further widen.
Research Questions

The research questions for this study emerged from a similar study conducted at Clemson University in 1988 and a comprehensive review of the literature in the area of black students on predominantly white campuses.

1. What student history factors are associated with black students persisting and graduating from Iowa State University?

2. What student history factors are associated with black students not persisting and graduating from Iowa State University?

3. What college experience factors are associated with black students not persisting and graduating from Iowa State University?

4. What college experience factors are associated with black students not persisting at Iowa State University?

Significance of the Study

At Iowa State University, little comprehensive institutional research has been conducted to study the problems associated with the low retention and graduation of black students (Jackson, 1991). Statistical compilations and narrative reports have been made on an annual basis. However, no formal effort has been made to identify and understand the evidence in the data.
In 1986 the Board of Regents established a committee to improve the recruitment of minority students at Regents universities. The objective of this committee was to present recommendations for the enrollment and graduation of black and other minority students. This effort involved the increasing of enrollment of minority students from 4.4% to at least 8.5% in the undergraduate, graduate, and professional programs by the year 1991. To accomplish this, the committee recommended:

1. Improving the existing programs for outreach and recruitment by utilizing the services of the community agencies, as well as professional staff in high schools and community colleges, to inform minority students about the opportunities and requirements for admission to the university.

2. Making high-quality video tapes featuring students, for use by admission staff who travel to high and community colleges.

3. Establishing a fund to enable graduate departments and the professional colleges to bring outstanding minority candidates to campus for interviews with faculty in the respective departments.

4. Establishing a campus visitation that will bring high school minority students to each Regents university.

5. Making effective use of our alumni and minority student organizations and recruiting minorities.

6. Producing a brochure for minorities that will assist students to become better prepared for admission to a Regents institution.

7. Making effective use of the media, television, radio and newspaper, could assist in the dissemination of educational information.
8. Providing financial assistance to minority students at all levels, undergraduate, graduate, and professional, to meet their full assessed need.

9. Creating a special affirmative action fund at each university to expand the number of teaching and research assistants available to minority graduate students.

10. Encouraging and rewarding excellence in scholarship by offering full financial academic scholarships to twenty (20) incoming undergraduate students each year at Iowa State University, and the University of Iowa, and to ten (10) students at the University of Northern Iowa.

11. Instituting special transition programs at each university for students whose admission credentials expose academic weaknesses in spite of high potential for success.

12. Making special efforts to ensure that the content of the curriculum as well as the ethnic composition of the faculty reflect the realities of a multicultural society.

Though commendable and comprehensive in scope, the attempts in the aforementioned recommendations for the enrollment, retention and graduation do not provide the kind of research data and information regarding black students that are necessary to address retention programs programmatically. The major significance of this study is to identify factors involving the college experience that contributed to black drop-out or graduation from the perspectives of students themselves. Therefore, the results of this study will be useful to black students, minority recruiters, retention officers, associations
and institutions of higher education in the state of Iowa and throughout the United States. More importantly, this study can be used in developing programs to improve retention and graduation rates of black students in the Iowa higher education system. The potential value for understanding this population provides a reference point for evaluating how well educational programs are responding to the needs of black students. Hopefully, this research will generate more research, more pragmatic strategies, more concern and more serious action to deal with this growing problem.

More importantly, this study will make a contribution to the body of research that has already been completed regarding black students at Iowa State University. Such studies include: A follow-up study of Iowa State University's minority graduate recruitment/advising Program 1979-1985 (Ramsey, 1987); the relationship between black male student athletes retention and graduation rates at a predominantly white institution (Ross, 1991); the effectiveness of summer orientation programs and subsequent academic performance of minority students: a follow-up study (Sanford, 1990); and involvement of black students in the residence halls at Iowa State University (Dawson, 1989).
Operational Definitions

The definitions presented reflected operational constructs for sample groups.

1. Fixed Factors- black students' academic history at Iowa State University.

2. Non-fixed Factors- black students' college experience at Iowa State University.

3. Retention- Students who continue to re-enroll on the same campus and eventually earn a degree from the institution.

4. Attrition- Students who either dropout or transfer to another school voluntarily.

5. Social Adjustment- The extent to which black students successfully adapt to attending a predominantly white institution of higher education.

6. Alienation- Black students' feelings of rejection, displacement and disconnection from the university community.

7. Persistence- Desire and determination of students to attain their educational goals demonstrated by successfully completing a college degree (Although persistence may be thought of as a retention precursor, in this research the two related terms will be interchangeable).

8. Racism- A feeling or belief demonstrated by behavior, conscious or unconscious, that white Americans are inherently superior to other racial groups or that a particular minority group is inferior to others.
9. Institutionalized Racism—A systematic means of perpetuating conscious or unconscious racism through rules, regulations and procedures that promote whites and degrade, omit and oppose other racial groups.

Basic Assumptions

1. The survey instruments and data collection procedures used to obtain black students information are valid and reliable.

2. The data used in this study are accurate.

3. The information collected in this study will contribute to the knowledge base in higher education.

4. The statistical procedures for the analysis of data were appropriate.

5. The sample selected accurately reflected the population.

6. The factors selected for study were appropriate.

Limitations of the Study

1. The data analysis for this study was limited to cases having complete and usable responses.

2. The black student sample included only those who were listed as enrolling at Iowa State in 1984.

3. It should not be assumed that the data collected and analyzed in this study represented the entire black population during the period in question.
4. Because this study was based over a seven year period, extraneous factors such as no forwarding address, lack of information from the Iowa State University database, and death had impacts on data collection.

5. This study was undertaken because of personal interest by the investigator.

Organization of Chapters

This dissertation is organized into five chapters, a bibliography and appendices. Chapter I includes the introduction, the purpose of the study, historical background, contemporary background, the statement of the problem, research questions, significance of the study, operational definitions, basic assumptions, limitations and organization of chapters.

Chapter II provides an assessment and summary review of current and relevant literature related to the study of black students on white campuses. The review of literature was divided into five sections: introduction, precollegiate preparation, institutional factors affecting black students retention and graduation, factors contributing to the success of black students and a summary.

Chapter III presents the methodology used for this study. This chapter includes the setting of the study, subjects of the study, development of the survey, survey procedures, data collection, treatment of the data, data analyses and statistical procedures and human subjects approval.
Chapter IV provides an introduction, analyses and interpretations of the data.

Chapter V includes a summary of the findings, conclusions, and recommendations for the university.
CHAPTER II. REVIEW OF THE LITERATURE

Introduction

A review of literature was conducted to identify information pertaining to retention and graduation of black students on predominantly white campuses. The Education Resource Information Center (ERIC) computer bibliographic database system was used to identify relevant articles. Iowa State University Minority Student Affairs records, Admissions and Registrars records, books, and dissertations were also examined.

This chapter will summarize the major findings of previous research related to the focus of this study and will examine factors that contribute to low retention and graduation rates of blacks students on predominantly white campuses. This chapter is divided into four sections: Precollegiate Factors, Institutional Factors Affecting Black Students Retention and Graduation, and Factors Contributing To The Success of Black Students and a Summary.

Precollegiate Factors

Institutions of higher education typically make admission decisions on the basis of a student's prior performance. Many factors affecting black student retention and graduation exist before arriving on campus. Inasmuch as blacks occupy the lower
rungs of the social ladder, black students tend to fail in higher education because their secondary school experiences were not those instilling the independence, autonomy, self-direction, patience, and tolerance, all characteristics needed for successful functioning at a college or university (Cooks and Nussel, 1990). More than 65% of blacks enrolled at predominantly white institutions are less prepared than their white counterparts for the college experience (Jackson, 1987). These students are more likely to live and to attend school in poor school districts, where less money is spent per student, where teachers are less experienced and sometimes less prepared, and where guidance counselors are in scarce supply (Wilson and Melendez, 1988).

Family characteristics rank highest among precollegiate predictors of success (Astin, 1985). Black students tend to come from low-income, disadvantaged backgrounds, and their socioeconomic background is considered strongly correlated with factors contributing to college retention. Bean (1982) describes these positive factors as academic success in high school, high school class ranking, college preparatory courses, parents with degrees, economic privileged, parental support for the decision to attend college, and high but realistic goals. Compared with white students, not only do black students tend to come from lower economic levels, but also they are less likely to attend college preparatory high schools, to achieve high
grade point averages and high college entrance scores, and to have parents with college degrees. Parents of most black students are typically urban and, have fewer years of education, earn less, and work at lower status jobs than do parents of white students (Blackwell, 1982).

Although some researchers contend that economic background is a significant factor in college retention, others disagree. Nettles et al. (1986 and 1989) and Kohen (1987) found that socioeconomic was not a factor in retention of black students. Another study by Nettles (1989) found a slightly different profile of black students at predominantly white schools. In fact, the black families involved tended to have a surprisingly strong economic background. Sixty-five percent of the students in the study grew up in two-parent households. Only 15% were from families with annual incomes of $8,000 or less. Nearly half were from families with incomes exceeding $21,000 per year (Nettles research had been done in 1982). On today's pay scale, the income sum would be significantly higher.

Thomas (1987) maintains that the student's high school academic performance record was a predictor of college performance. Likewise, Cross and Astin (1981) found that the most significant predictor of academic performance for full-time students was past academic achievement, as reflected by high school grades, SAT scores, and college preparatory curriculum. Research suggests that factors such as gender, reference rating
by high school counselors, college aptitude test scores, and high school math and science grade point averages were contributors to academic performance and retention (Dawkins and Braddock, 1982).

The claim has been made that traditional predictors are less valid for black academic performance than for white student academic performance. For example, Breland (1978) reviewed over 30 relevant studies and concluded that traditional predictors, particularly standardized test scores, tended to overpredict the academic performance of black college students. Other researchers (Pfeiffer and Sedlacek, 1971; Farver, Sedlacek, and Brooks, 1975) found that although high school grade point average was one of the best predictors of white student academic performance, it was relatively ineffective in predicting black students performance, especially black male academic performance. Motivation and the goals of blacks students were better predictors of academic performance than was either past high school performance or standardized test scores.

Some researchers (Nettles, Thoney, and Gosman, 1986; Tracey and Sadlacek, 1987) support the contention that traditional predictors such as SAT or ACT scores do not provide an adequate basis for understanding the academic performance and attrition rates of black students who attend predominantly white institutions.
Institutional Factors Affecting Black Students
Retention and Graduation

The college experience itself is as important as precollegiate predictors. The campus environment can be hostile to blacks at many institutions. According to Fleming (1984), black students at white institutions experience a higher attrition rate than do both white students at predominantly white institutions or black students at historically black institutions. Blacks attending predominantly white campuses have to deal with a system run largely for whites by whites (Sedlacek and Brooks, 1976). These students confront an educational system European in essence, organization, and definition. Black students must typically handle cultural biases and learn how to bridge their own experiences with the prevailing white European culture.

Because most black students come from urban environments, it is not uncommon to find a disproportionate number suffering from paranoia, isolation, alienation, and loneliness when thrust into a predominantly white environment providing few if any support systems (Elam, 1982). It is inevitable that black students would experience four to five years of relative hostility, isolation, alienation, insensitivity and sorrow, and identify less with the institution than would white students (Fleming, 1984; Boyd, 1974).
Black students arrive on predominantly white campuses with developmental issues similar to those of nonminority students (e.g. adjustments to college, separation from family, class selections, relationships, purchasing of supplies, etc.). Chickering (1969) asserts that students are developmentally diverse and reasons that they may attain developmental level at dissimilar times. Further research by Chickering found that students see their college years as times during which to meet their own needs and test their capabilities by interacting with the demands of the institution. Chickering offered seven vectors of development that summarize individual growth by emphasizing differentiation, integration, maturation, and stimulation. The vectors are (1) developing competence, (2) managing competence, (3) developing autonomy, (4) establishing identity, (5) freeing interpersonal relationships, (6) developing purpose, and (7) developing integrity. Other pertinent categories affecting student development included of clarity and consistency of objectives; size of institution; curriculum, teaching and evaluation; residence hall arrangements; faculty and administration; and friends, group, and student culture (Chickering, 1969).

Sanford (1966) suggested that an institution should be a developmental community. He maintains further that it is the institution's responsibility to provide students with challenges, with evaluations of their coping mechanisms, and
with support when challenges presented overwhelm. An important factor in the growth needs of college students involves developing increased tolerance and respect for individuals with different backgrounds (Chickering, 1969).

According to Fleming (1984), black students graduating from predominantly white institutions of higher education derive less intellectual and psychosocial development than do their counterparts graduating from historically black institutions. She suggests that black students persisting at predominantly white campuses tolerate these environments at the risk of forsaking opportunities for growth and development.

The way that black students feel about themselves is directly related to their adjustment to white institutions (Bayer, 1972; and Stikes, 1984). Some researchers (Astin, 1982; Tracey and Sedlacek, 1987) suggest that identification with an institution is a more important correlative of retention for black students than it is for white students. Fleming (1984) asserts that the degree to which a student identifies with a campus is a critical factor. Using both the Thematic Perception Test and a questionnaire to study 874 students at seven postsecondary institutions, Fleming (1984) found that black students at predominantly black colleges showed strong personal relationships with faculty members. In contrast, black students attending predominantly white campuses expressed relative alienation.
A study by Suen (1983) concludes that blacks scored higher than whites and other minorities on an alienation scale. After tracking the attrition rates for three consecutive semesters, Suen found that there was a higher correlation between alienation and attrition for black students than for white students. Students define alienation as feelings of rejection, displacement, and disconnection from the university community. Fleming (1984) found that as a result of alienation, black students experience more severe adjustment problems than do other students on campus and are less likely perform to their academic ability. The lack of affiliation with a college was linked to a decreased desire to remain in school and to a possible decline in academic performance (Fleming, 1984).

In too many instances, black students are treated with indifference at predominantly white institutions and are overwhelmed by unfamiliar demands. Many black students on white campuses witness blatant hostility from white faculty, administrators, and students. Often personnel at white institutions do not recognize that black students' experiences differ greatly from those of the majority of white students. White faculty and staff are either ignorant or unresponsive to the special needs of black students and thus contribute to their maladjustment to college (Fleming, 1984; Gibbs, 1973). Other research found that white administrators and faculty members expect black students to migrate into the white university
setting without substantial alterations of academics or programs, notably when many of them are admitted with known deficiencies (Gibbs, 1987). Because of nonminority lack of awareness, problems and concerns of these students often go unattended. But the way black students adjust to campus, and to the college environment, and the ways in which faculty and staff encourage such adjustment are integral to student success or failure.

Swift (1986) contends that whites on campus often mistakenly believe that black parents and students are unconcerned about the quality of education that black students receive. Because such myths exist about black students on white campuses, some faculty members have lower expectations for black students (Allen, 1985). A frequent complaint of black students is that white teachers ignore them. A (1985) study by Astin found that over a 20-year period, and based on students from 1200 institutions, quality interaction with faculty seemed more important than any other college factor in determining minority student persistence. On the other hand, because minority students tend to be more passive than do their nonminority counterparts, minority student involvement with faculty is considerably less. Elam (1982) protests that whites on campus should not label students as nonperformers, but instead examine the lack of support systems promoting academic persistence. Rather than examining teaching quality, programs,
or student environment interactions, some educators blame the students by saying that they can not achieve, thus causing a stressful relationship for both teacher and student (Stikes, 1984).

White instructors often seem uninterested in black students, give them little encouragement, or use unfair grading practices (Fleming, 1984). In fact, Elam (1982) says that black students have to select professors quite carefully. It is not unusual for black students to indicate that they work twice as hard as their white counterparts do, but receive less compensation. Trujillo (1986) found that classroom interaction between faculty and students clearly favors nonminority class members, (a) to whom more complete answers are given and (b) to whom more complex questions are directed. Duncan (1985) found that black students feel that they are treated unfairly by professors and receive less feedback than nonminorities do.

A study by Willie and McCord (1972) found that the quality of the relationship between teachers and students tends to differ between black and white students. Indicators of the quality of the relationship are the kinds of problems with which students turn to teachers for assistance, the kinds of responses that teachers make, and the perception of these responses by students. This study also revealed that the proportion of white students turning to their teachers for guidance regarding problems such as registering for classes or buying books is
always larger than the proportion of black students. For example, 42% of the white students indicated that they sought assistance from faculty members about choosing classes or instructors, whereas only 16% of black students approached faculty for this kind of assistance. Perhaps the most significant finding in this study was the lack of trust that black students have in white teachers. Only 36% of the black students believed that the teacher was the appropriate person with whom to register a complaint about an academic problem such as grades, whereas 59% of the white students believed so. In fact, black students tend to turn to the dean and to other administrative personnel to register a complaint about grades as often as they would turn directly to the teacher. The proportion of white students who would take up the issue of grading with the teacher first is twice as great as the proportion who would be inclined to go to the dean. But black students often refrain from seeking assistance from faculty because they are afraid that they will be viewed as ignorant, or inadequately prepared or that their grades will suffer (Jackson, 1987).

Black students often feel that course materials are inadequate because they ignore the black experience and are oriented towards the educational needs of whites (Willie and McCord, 1972). Other complaints are that white teachers do not understand the black experience and discourage black students
from discussing and researching their racial heritage as an educational exercise. Many white administrators and faculty tend to believe that minority students wish to "melt into" the larger white community, even to the point of abandoning their dress code, their cultural desires, and their values (Turner, 1985). Ultimately, black students are faced with the overwhelming task of conforming to white standards and traditions, and thus relinquishing black speech patterns because they are viewed as symptomatic of an educational deficiency (Victims of Racial Incidents, 1986).

The conflict of being caught between cultures between the ethnic and racial community on one hand and the national social structure on the other--can be traumatic for black students living away from home for the very first time. They may find it difficult to cope with expectations placing them under heavy pressure to betray their heritage (Frank, 1984). Nevertheless, DiCesares, Sedelacek and Brooks (1972) found that blacks bridging these gaps were more likely to stay in school than were other blacks. This finding suggests that there is a need to hire black professionals who can serve as role models or to whom black students can turn for assistance (Elam, 1982).

Today, minorities constitute only 8.5% of the full-time faculty at predominantly white institutions, and just 2.3% are black. Melendez (1988) found that "The dearth of black leadership is painfully clear from the numbers: white males hold
approximately 70% of the collegiate faculty and administrative positions. This is not accidental or the consequences of talent rising to the top. Women and minorities have been systematically excluded from participation in mainstream higher education since colonial times—minorities even more so than white women" (P.7). The majority of black faculty members are found in Black Studies, remedial or compensatory programs, and bilingual education and often rank as assistant professors.

Black faculty and staff are needed to serve as positive role models. When black students see caring black faculty and staff they gain the confidence that they too can achieve and master the higher education environment (Gill, 1987). One researcher argues that due to the absence of black faculty and staff, black students on predominantly white campuses are less well educated than are black students at historically black institutions because nonminority faculty are frequently unable to communicate their knowledge in a manner meaningful to blacks and to other minority students (Nickson, 1982). Black students on historically black campuses are more apt to make self-assessments than are black students on predominantly white campuses, because the former are involved in communication and feedback systems in the schools (Fleming, 1984).

Tinto (1975) suggests that social relationships are an integral part of the college experience and thus social involvement should serve to enhance and to reinforce values and
behaviors learned in the classroom. Research indicates that black students perform best academically when able to maintain positive social relationships on campus (Tinto, 1975; Fleming, 1984). Many blacks emphasize social bonding and group unity. Among such aspects of the social environment are programs and student activities offered at a given institution (Mallincrodt, 1988). In a national sample of college students, Astin (1975) found that nonacademic programs or activities were associated with academic persistence. Findings revealed the importance of participating in the college or the university nonacademic environment as a means of fostering involvement and identification with the college itself, thus enhancing the probability that students would remain enrolled.

Other researchers (Sedelack and Brooks, 1976; Tracey and Sadelack, 1984) attest the importance of the social environment by demonstrating that retention can be predicted by a group of noncognitive variables including involvement in student organizations and support from family for staying in school. Finding a social niche in which students share values and support each other through friendship and mutual concern for each other's well being is typically viewed as central to persistence (Tinto, 1975). Social and academic isolation often accompanying black students on predominantly white campuses can produce apathy, frustration, and academic failure (Elam, 1982). Black students on predominantly white campuses who experience
high levels of social support from other black students interact more frequently with students than do black students with little social support from other black students (Stikes, 1984).

Black students perceive the social climate as more negative than do white or Hispanic students (Pliner and Brown, 1982). Madrazo, Peterson, and Rodriguez (1978) reported that blacks experience a greater feeling of isolation than do either white or Hispanic students. The exclusion of black students from social networks, in conjunction with unsatisfactory interpersonal relationships, can cause black students to experience many psychosocial difficulties and profound feelings of alienation (Allen, 1988; Fleming, 1984).

Pounds (1987) suggested that the low ratio of black students to white students, and low visibility may exacerbate black students' feelings of isolation, alienation, and distrust. The environment of hostile neglect that exists on many white campuses causes many black students to isolate themselves and thus disrupt the educational experience (Williams 1987). Research has shown that black students on predominantly white campuses often socialize little with their white counterparts and are generally isolated from the mainstream of campus activities (Elam, 1982). Several researchers maintain that black students attending predominantly white institutions are minimally involved in on-campus activities (Thomas, 1987; Allen, 1985).
The Southern Regional Educational Board (SRED) interview with 148 students found that 90% felt isolated and expressed the desire for more opportunities to become involved in campus life (Institute for the Study of Education Policy, 1976). Black and other minority students, however, feel more comfortable participating in activities within their own groups and are therefore not as active in campus wide activities and organizations.

Willie and McCord (1973) found that almost one-half (43%) of the black students in their study reported not having been in a racially mixed social group for the six months preceding the survey. Three-fourths of the students in the study indicated that their participation in interracial parties was rare occasional. Black and white students often build two worlds on most historically white campuses, even when no separate facilities exist (Crawford, 1986). Ironically, whites tend to be more tolerant of blacks in situations involving little or no personal contact (Patterson, Sedlacek, and Perry, 1984). They pursue separate social lives revolving around separate parties, pageants, and, most notably fraternities and sororities. Black student membership and participation in activities are often less than for whites, and black facilities are often inferior, but the camaraderie provides the black students with a "sense of belonging" (Is the Dream Over, 1987). Both black and white students indicate that in social settings they feel more
comfortable with members of their own race (Patterson, Sedlacek and Perry, 1984).

A variety of opinions exist about the importance of minority student organizations. Boyer (1982) maintains that students in these organizations should support the larger purposes of the institution; otherwise, they have no place in higher education. Some researchers argue that minority organizations are germane and make substantial contribution to retention. McGhee (1990) argues that black student organizations give students a sense of belonging, purpose, security and heritage and an avenue of rejuvenation. For the campus, they depict the traditions of another culture and they reassure that campus official respect individual and ethnic differences (p.72). Involved students expressed more of a feeling of being a part of the campus than do uninvolved students (Rooney, 1985).

Although many blacks experience social isolation on predominantly white campuses, the issue is particularly sensitive for black females. Black women more often than black males are concerned about the number of black students on campus for social purposes, though black males too, feel that they would derive social benefits from an enlarged black student population (Willie and McCord, 1972). An increase of black students on campus increases the range of personalities available for social interaction. When the number of black
students on white campuses is small, dating can become a serious problem for black students. The chance of a black person finding another person with whom he or she is compatible is more limited on a white campus than on a black campus (Willie and McCord, 1972). Crawford (1986) reported that black women, who in most instances outnumber their male counterparts to begin with, feel an acute sense of rejection when the limited number of black males on campus choose the company of white females over theirs. For many black women, there is an unspoken taboo against interracial dating, and thus black females often have to "share" the companionship of the available black men on campus with other black females (Elam, 1982). However, black men are less limited in their ability to find companionship in the opposite sex. Indeed, there is some interracial dating, but primarily between black men and white women (Willie and McCord, 1972). Notwithstanding, a large percentage of black students refrain from interracial dating as a result of racist attitudes prevailing on white campuses.

Racism runs as deep through college campuses as it does through society (Is The Dream Over, 1987; Victims of Racial Incidents, 1986) and creates perceived and real limitations for black students attending white colleges and universities. Black students are more likely to be victims of racism and discrimination than are Asians, Hispanics, or white students (Webster, Sedlacek, and Miyares, 1979). One of the most
publicized incidents supporting this contention occurred at the University of Massachusetts in Amherst when 40 black students were attacked by approximately 100 white males following the 1986 World Series game. Black students find themselves exposed to cross burnings, hate mail, harassment, and graffiti epithets appearing on walls and other visible places on campuses. These students also face racism and prejudice that is not always verbalized or obvious.

Unconscious racism is rampant amongst white faculty and staff members (Smith, 1989). Institutionalized racism is also a very real problem for many black students. Universities have an obligation to provide an environment conducive to the well-being of blacks and to diminish institutional racism. Sedlacek (1987) maintains that blacks on predominantly white campuses perceive greater levels of hostility and racism on campus, are more likely to experience feelings of alienation and dissatisfaction, and indicate less commitment to their respective institutions than do whites.

The complacency of higher education when faced with the issue of racism has resulted in an increase in the number of racial incidents on predominantly white campuses. Under the Bush and Reagan administrations, racist attitudes have flourished, as have racist activities. As a result of the continued evidence of racial, political, and social discrimination in this country, for the purposes of adaptation
and survival many blacks have adopted attitudes of mistrust toward whites. (Thompson and Frezell, 1991). Seldacek and Brooks (1976) found in their model of racism that the first stage of avoiding the pitfall is understanding of cultural and racial differences. Programs on racism and cultural diversity are often incorporated into residential hall activities (Smith, 1989).

Aitken (1982) found that a factor often overlooked in studying retention is satisfaction with the residential living experience, which is one of the best indicators of student performance and persistence. On campuses where separate housing does not exist, however, blacks tend to congregate in certain areas or to have special meeting places (Is the Dream Over, 1987). Willie and McCord (1972), researching the housing of black students on predominantly white campuses found that living arrangements of black students on white campuses, 66% of the black students lived with other black students all or most of the time that they were enrolled in college. About 20% of the black students indicated that they had had only white roommates. Toupin's (1975) study of room sharing indicated that most black students preferred not having a roommate at all, whereas only about a fourth of the white students expressed such a preference.
Later research by Bennett (1974) at Indiana University found through a survey of 94 black students (20% of the black student population) and 432 white students (5% of the white student population) that 17% or less of the black students would have felt uncomfortable with a 50-50 racial mix of black and white students sharing their floor. Ironically, most indicated preference for a 50-50 mix of blacks and whites and desired a larger percentage of blacks in their house. White students participating in the study indicated that a 50-50 ratio mix of black and white students would have made them very quite uncomfortable. The comfort zone for white students in the house would necessitate a larger ratio of white students.

Another factor affecting retention and graduation is financial aid. As more blacks are realizing that a college degree is the key to getting a job and to upward mobility, their dreams of of higher education are often diminished as a result of economic realities. Financial problems are great contributors to the small number of black students on white campuses. Pounds (1987) contends that even the middle class find it difficult to support a student in college and many times find it impossible. A study by Brown and Saks (1985) found that one-half of the blacks attending college came from families with incomes below the poverty level. This study indicated, moreover, that minority students were less able to pay for college in 1985 than they were in 1980.
The drop-out rate for blacks not receiving financial aid was 46% compared to 29% for whites (Cole, 1982). According to Newsweek (1987) black parents are paying their children's education the same way in which they purchase a house; by borrowing the money. Grants no longer constitute the vast majority of federal assistance, of all monies is in the form of repayable loans (Williams, 1987). Research by Turner (1985) indicates that loans have become a negative incentive to pay for college. For a large percentage of black students, the notion of having to repay a $15,000 to $20,000 loan after graduation is frightening, especially considering the socioeconomic backgrounds. Thus, more than 43% of black and Asian students attend community colleges, compared with 36% of white students (Wilson and Justiz, 1988).

As a result of financial difficulties and lack of resources, some black students must limit themselves to certain academic experiences. They must restrict themselves from majors that require additional charges in lab fees or other student financed resources (Smith, 1986). Black often find themselves unable to join outside academic clubs where learning may on many occasions take place in a bar, at lunch, or under circumstances beyond their financial means.
Factors Contributing to the Success of Black Students

Despite the visible difficulties that many black students experience on white campuses, only a minute fraction make the necessary adjustments and are academically successful. Bean (1982) and Mallinckrodt (1988) described such students as those who were academically successful in high school, ranked high in their classes, took college preparatory courses, were involved with peers, had high but realistic educational goals, and had parents who also had gone to college, and were well off financially, and supported their children's decision to attend a postsecondary institution. Traditional predictors have been called less valid regarding black student academic performance than for white student academic performance. Nettles, Thoeney, and Gosman (1986) found that SAT or ACT scores do not provide an adequate basis on which to understand the academic performance and attrition of black students attending predominantly white institutions.

Success on a predominantly white campus encompasses intellectual ability, belonging, or integration with an institution's academic and social communities (Boyer, 1984). Tinto (1987) added that students usually persist at institutions providing quality educational programs in an atmosphere of friendliness and sincere concern. Black students who attend historically black institutions have less difficulty attaining
a sense of membership or integration within an academic community than do their peers at predominantly white institution. This may explain why black students, who are not experiencing academic difficulty opt to leave white campuses (Fleming, 1984; Allen, 1987; and Tinto, 1988). Historically, black institutions have been responsible for producing 75% of all blacks holding Ph.D degrees, 75% of black army officers, 80% of all black judges, and 80% of all black doctors (Jordan, 1975).

Bean (1982) stressed that for all students, the curriculum itself probably has more to do with attrition than does any other organizational factor. Such aspects of the curriculum include courses offered, the time at which they are offered, and which ones and how many are required for graduation. Toy (1987) asserted that advising made a strong contribution towards black students decision to leave or to remain in college. Students tend to drop out if they feel a lack of academic support, such as in academic advising, career counseling, instruction in the use of institutional resources, e.g. library, or computer. Student health and counseling services are organizational factors also affecting retention decisions (Bean, 1982). Mallinckrodt and Seldacek (1987) found that certain facilities such as the campus library, or recreational center and certain student union programs promoted social interaction and student retention.
Academic success is different for black and white students. For black students, two very important predictors of educational attainment are educational aspiration and self-esteem. Researchers (Tinto, 1975; Allen, 1981; and Allen, 1982) theorize that aspects of both the student and the school structure must be taken into account to understand why students succeed or fail in higher education. These models concentrate on the interaction between individual and environment. Applying Durkheim's notions of social structures, these models argue that students are more likely to succeed in higher education when they are integrated well into normative, social, and academic structures of the university. Conversely, when students are insufficiently integrated, they are likely not to succeed. Each model argues that a student arrives at an institution with a set of background characteristics (e.g. personalities traits, academic aptitudes, and family characteristics), which in part determines how well the student will fit into the academic environment.

For both black and white students, factors such as past academic achievement, type of college attended, the expectations with which he/she enters college and the number of hours per week employed are factors related to persistence and retention (Elam, 1982). But for most black students attending a predominantly white institution, success is positively correlated with the social and academic systems of the university (Pascarella and Terenzini, 1976). Pollard (1982)
points out that minority retention may be increased through interventions designed to develop high quality interactions. A study by Stewart, Jackson, and Jackson (1990) found that successful blacks on predominantly white campuses felt that interaction campus was critical because it was in this setting that the interaction of information related to academic and professional development most often occurred. For many black students on predominantly white campuses, educational success is problematic because grades carry much less significance for future educational decisions than for white students. This process is contingent upon certain depositions such as personal ambition and aspirations, self-esteem, and self-reliance of both parents and students (Cooks and Nussel, 1990).

Students with positive attitudes toward their respective institutions of higher education are relatively likely to remain in college. Astin (1985) maintains that involvement and retention have major impacts on students success. The theory of involvement explains that anything increasing student involvement or student commitment increases retention (Turnbill, 1986). Turnbill also maintains that involvement is a key factor in retention. In fact, the longer that students remain in college, the greater their chances are obtaining a degree (Bynum and Thompson, 1983).
Astin (1985) and Turnbull (1986) found that the more time and effort students put into the learning process and the more intensely they pursue their own education, the greater will be their growth and achievement, their satisfaction with educational experiences, and their persistence in college.

Tracey and Sedlacek (1984) specified eight noncognitive variables affecting black student academic success and contributed to persistence. These variables are:


2. Realistic self-appraisal. Recognizes and accepts deficiencies and works hard at self-development. Recognizes need to broaden his or her individuality; especially important in academic areas.

3. Understand and deals with racism. Is realistic based on personal experience of racism. Not submissive to existing wrongs, nor a "cop-out." Able to handle a racist system. Asserts school role to fight racism.

4. Demonstrated community service. Is involved in his or her cultural community.

5. Prefers long-range goals to short-term or immediate needs. Able to respond to deferred gratification.

6. Availability of strong support person. Individual has someone to turn to in crises.

7. Successful leadership experience. Has experience in any area pertinent to his or her background (e.g., gang leader, sports, noneducational groups).
8. Knowledge acquired in the field. Has unusual or culturally related ways of obtaining information and demonstrating knowledge. The field itself may be nontraditional (p.484).

Pounds (1989) contends that black students on white campuses can be successful if aware of their strengths, weaknesses and resources. This includes being aware of the personal value system, beliefs, abilities, skills, opportunities and roadblocks, being knowledgeable of the availability of institutional and community resources, being involved in nonacademic activities, and spending time developing relationships within support groups and with faculty and staff. Arbetier (1986) maintained that to produce a higher level of persistence, the institution should provide a support system including an Office of Minority student Affairs, and black faculty and staff. Such channels, however should not be the only avenue via which black students can receive assistance.

Summary

Many predominantly white institutions are witnessing an abysmal attrition rate among black students. As a result of the complex internal process, most black students leave predominantly white institutions in the first year. Understandably, black students drop out of college if they fail to perform academically. Three main reasons account for this failure: poor elementary and secondary education preparation,
individual background, and social characteristics of the institution. Tinto (1987) found that students withdraw from an institution in two basic ways: academic dismissal or voluntary withdrawal. He maintains further that students withdrawing for academic reasons comprise approximately 10% to 15% of the total number of students withdrawing from college; the remainder leave on a voluntary basis.

For many black students the institutional climate produces cultural shock that negatively affects their ability to obtain a degree. For example, Allen (1986) examined black students' ratings of campus life and extra-curricular activities, and reported three common sorts of difficulties they face at white universities: problems of racism (18%), academic problems (21%), and problems of cultural adjustments, or feelings of social isolation (28%). There are also differences in both the perceptions of stressors and problems experienced amongst white and black students, with the latter displaying a greater concern regarding ethnic trust, more academic difficulties, minimal support services, and lack of black role models among faculty and staff (Suen, 1983).

These students are often expected to blend into the sociocultural life of campus and worship the gratitude of the institution for giving them an opportunity to obtain an integrated education. Issues of roommate conflict, loneliness, alienation, nostalgia, unhappiness, feelings of unfair
treatment, and lack of motivation and motivators are factors working against black students on white campuses. When seeking black faculty and staff to aid in adjusting, black students encounter seeing very few. The degree of interaction into academic life is said to have significant impact on the students' sense of commitment to the institution. Finding a social niche in which students share values and support each others' through friendship and mutual concerns is viewed as a detrimental retention factor. Despite social and economic disadvantages, black students have the same, or higher aspirations than white students.

Because research suggests that black students can be successful on predominantly white campuses, the purpose of this study is to identify controllable and uncontrollable factors as a first step toward developing effective activities, methods, and programs to reduce the rates of retention and graduation. It is obvious that if the problem is left unattended, the situation will only worsen, causing many black students to enter revolving doors. It is not enough for black students to enroll in colleges and universities, since enrollment does not necessarily equate to retention and graduation.
CHAPTER III. METHODOLOGY

This chapter describes the methods utilized in this study. The six major sections are: Setting of the Study, Subjects of the Study, Development of the Survey, Survey Procedures, Data Collection, Treatment of the Data, Data Analyses and Statistical Procedures and Human Subjects Approval

Setting of the Study

Iowa State University is located in Ames, Iowa, which is approximately 30 miles north of Des Moines, the state's capital. Ames has a population of 45,000, 25,000 of whom are students at Iowa State University.

In 1959 Iowa State College was given the name of Iowa State University. The primary missions of this university are teaching, research, and service. The institution seeks to benefit people of the state of Iowa, whose tax monies are the major source of funding for the university. It is accredited by the North Central Association of Colleges and Secondary Schools and is a member of the Association of American Universities, a prestigious organization of 53 major universities in the United States and in Canada.

Iowa State University is composed of the Graduate College, and the Colleges of Agriculture, Business Administration, Design, Education, Engineering, Family and Consumer Sciences, Liberal Arts and Sciences and Veterinary Medicine. The
university offers more than 120 major and professional programs, more than 400 student-run organizations, and numerous professional programs. There are also residence halls providing students of all races, religion, and cultures the opportunity to live and interact together.

**Subjects of the Study**

All participants were black and former Iowa State University students having been enrolled as freshmen in 1984. This provided a seven-year period that student history would be available from the Iowa State University database. Only undergraduates were included. Students were identified from a computerized list provided by the Office of the Registrar.

In 1984, 3,977 students were enrolled at Iowa State University as freshmen. Of that number, 125 were black, 69 were Asian, 26 were Hispanic and 1 was Native American Indian. All former students identified as black Americans were mailed letters explaining the study and time and date they would be contacted for a telephone interview. Because the number of black students that enrolled as freshmen in 1984 was so small, the investigator did not randomly select subjects to interview. Calls were attempted for the entire group. Ninety-five former students participated in the study.
Table 1. Characteristics of Iowa State University black students who entered during the 1984 academic year and participated in the study.

<table>
<thead>
<tr>
<th>Number of subjects contacted</th>
<th>95</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduation status</td>
<td></td>
</tr>
<tr>
<td>Graduated</td>
<td>45.26%</td>
</tr>
<tr>
<td>Withdrew</td>
<td>54.78%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>40.0%</td>
</tr>
<tr>
<td>Female</td>
<td>60.0%</td>
</tr>
<tr>
<td>Residency</td>
<td></td>
</tr>
<tr>
<td>Iowa</td>
<td>14.73%</td>
</tr>
<tr>
<td>Out-of-state</td>
<td>85.26%</td>
</tr>
<tr>
<td>ACT score</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>16.84</td>
</tr>
<tr>
<td>Std Dev</td>
<td>5.08</td>
</tr>
<tr>
<td>Number</td>
<td>95.00</td>
</tr>
<tr>
<td>High school rank</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>63.89</td>
</tr>
<tr>
<td>Std Dev</td>
<td>20.122</td>
</tr>
<tr>
<td>Number</td>
<td>95.00</td>
</tr>
</tbody>
</table>

The ratio for this study was 40% male and 60% female. The overall graduation rate for black females was 29% compared to 17% for black males (Table 2). Students who resided within the state consist of about 70% of the university's student enrollment. However, for the sample population of this study, the number of out-of-state students was high at 85%, and the overall graduation rates were higher for students residing outside the state of Iowa.
Table 2. Graduation rates by sex and residence of sample population of black students who graduated or withdrew

<table>
<thead>
<tr>
<th></th>
<th>Overall</th>
<th>Graduated</th>
<th>Withdrew</th>
<th>X2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Percent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>38</td>
<td>40.0%</td>
<td>16.84</td>
<td>23.15</td>
</tr>
<tr>
<td>Female</td>
<td>57</td>
<td>60.0%</td>
<td>26.31</td>
<td>33.68</td>
</tr>
<tr>
<td>In-state</td>
<td>14</td>
<td>14.73%</td>
<td>6.31</td>
<td>8.42</td>
</tr>
<tr>
<td>Out-of-state</td>
<td>81</td>
<td>85.26%</td>
<td>36.84</td>
<td>48.42</td>
</tr>
</tbody>
</table>

**Significant at the 0.05 level
***Significant at the 0.01 level.

Development of the Survey

A questionnaire was selected as the most appropriate method for gathering data from former students. The questionnaires used in this study was obtained from a 1988 study entitled "A Study to Identify Factors That Contribute to Black Student Withdrawal at Clemson University." By Jacquetta A. McLung, Gerald L. Waddle and Carmen V. Harris (Appendix B and C). To determine reliability of the instrument administered, a standardized item alpha was computed on the individual items for both the conflict (.93) and the help variables. The size of the alphas indicated that former black students responded in a relatively consistent manner to each part of the questionnaire. The validity of the survey was accepted on the basis of a review by three experts in the field.

The questionnaire was revised by the investigator, with assistance from the program of study committee. Some items were
reworded, and three open-ended questions were added to improve understanding of the situation rather than the predicted value of one variable given the known values of the others. The opened questions were based on guidelines by Khan and Cannell (1957), *The Dynamics of Interviewing*, which outlined the interview as communication, provided the psychological basis of an interview, techniques for motivating the respondents, and suggestions for formulation of objectives and questions.

This study involved identifying academic factors of the student's history (fixed factors) and factors of the college experience (non-fixed factors) associated with persistence. Six academic characteristics were compared by sex and residency in terms of their relations to the persistence of these two groups of students (those who graduated and those who withdrew).

Part 1 of the questionnaire consisted of items designed to gather information regarding participant experience. Part II consisted of six questions examining student interactions with faculty and staff. Part III consisted of questions about university support services. Part IV asked respondents about how they were affected by the university environment. Part V outlined respondents expectations for higher education. Part VI focused on race relations. Part VII requested recommendations for improving retention and graduation rates of black students at Iowa State University.
Survey Procedures

Initially, a letter explaining the study was mailed to former Iowa State University students who enrolled in 1984. The letter mailed December 12, 1991, explained the scope of the project, identified its purpose, encouraged participation, and provided a date and a time at which subjects would be contacted by telephone for an interview. The questionnaire was mailed along with the letter to give participants time to think about their answers and to recall significant events that might contribute the project. Beginning December 20, 1991, subjects living in the state of Iowa were contacted. Over the following weeks an attempt was made to contact all identified 125 former black students that enrolled in 1984. A second attempted was made to contact each participant that was not home during the first attempt or indicted that it was not a convenient time to participate in the study. This was about one week after the first contact.

The student history information (fixed factors) was obtained from the Iowa State University database; the questionnaire was used to obtain nonfixed information about the college experience. The questionnaire used to obtain "nonfixed" information from the former Iowa State University students was based on retention characteristics identified in the literature. Telephone numbers for subjects were obtained from the Alumni Affairs, the Minority Student Affairs, and the Registrar's
Offices at Iowa State University. Others sources for telephone numbers included fraternity and sorority records and mutual acquaintances.

The questionnaire used to obtain non-fixed factors included questions about social isolation, alienation, loneliness, racial prejudice, faculty-student relations, academic preparation, and curricula. With the exception of one short section, the questionnaire was the same for students who had graduated and withdrew. Students who had graduated were asked if they had attended graduate school, where, or if they had future plans to attend...The students who had withdrawn were asked if they had transferred to another university, whether or not they graduated, and what factors helped them succeed at their new college.

Data Collection

Data collection involved two phases. The first phase involved assessing student history information from the Iowa State University databases. The information sought included six characteristics: gender, residency, college of major, date enrolled, ACT scores, and high school class rank. The second phase of this study entailed telephone interviews with each former student (who had graduated or had withdrawn) to obtain information about his or her college experience at Iowa
State University. This stage involved assessing information from each participant regarding his/her feelings towards Iowa State University. Certain types of information can be secured only by direct contact with the subjects, for example, intimate facts of personal history or personal habits and characteristics (Myares, 1987). The use of audiotape recording permitted repeated observation by the researcher.

Non-fixed factors about college experience covered 14 related topic areas, including reasons for attending Iowa State University such as housing and living arrangements; social life, campus activities, curricula, interactions with faculty, staff, and students, support services, racial discrimination, and personal feelings, opinions on race relations; precollege experience, perceived explanation for the university's high drop-out rate among black students, other educational experiences, and recommendations to improve the university's environment.

Treatment of the Data

Four steps were followed in the data treatment 1) a coding scheme was devised to give the variables names and to describe the variables, column format, and numerical codes; 2) responses from the 95 questionnaires were coded numerically; 3) information was key punched into the Wylbur system. and 4)
verbatim transcripts of the telephone interview were prepared and then analyzed to obtain description of events that were both routine and regular, as well as unexpected.

Data Analyses And Statistical Procedures

The first phase of analysis examined history factors of the sample population. Chi square analyses were used for the categorical variables involving student history. A one way analyses of variance was used for the interval variables involving student academic histories; an analysis of both gender and residency was made to compare students who had graduated with those who had withdrawn. In addition, academic characteristics of the respondents were compared with those of the sample population.

The second phase of the analyses examined the college experiences of respondents. To evaluate the effect of non-fixed factors on student persistence Chi-square analyses compared those students who graduated and those who withdrew in terms of categorical variables.

Human Subjects

The Iowa State University Committee on the use of Human Subjects in Research reviewed the study and concluded that the rights and the welfare of human subjects had been adequately
protected, that risks were outweighed by potential benefits and expected value of knowledge sought, that confidentiality of data was assured, and that informed consent was obtained by means of appropriate procedures (see Appendix D).
CHAPTER IV. RESULTS AND DISCUSSION

Introduction

This research was designed to investigate the factors contributing to persistence and attrition of black students entering Iowa State University in the 1984 academic year. This chapter is composed of two sections: the first examines the extent to which student factors are associated with black students either persisting and graduating or withdrawing from the university; the second the extent to which college experiences can be associated with persistence and attrition.

A total of 125 black students were identified as possible subjects by the Registrar and by the Office of Institutional Research. A total of 95 (76%) of the black class of 1984 were contacted.

Statistical Analyses

A oneway analysis of variance was used to test the mean differences among gender, place of residence, and graduation status. The level of significance used in testing all research questions was .05.

Research Questions 1 & 2

1. What student history factors are associated with black students persisting and graduating from Iowa State University?
2. What student history factors are associated with black students not persisting at Iowa State University?

Efforts were made to determine whether the measures of entering abilities such as high school rank (HSR), ACT scores, or other characteristics could be used to predict the academic success of subjects participating in the study. The ACT scores and the HSRs of students who persisted were compared with those of students who withdrew. Actual grade point average (GPA) at exit from the university and predicted GPA are related indicators of academic performance (Table 3).

Table 3. Predicted GPAs compared with actual GPAs, by ACT scores and HSR

<table>
<thead>
<tr>
<th></th>
<th>Overall</th>
<th>N</th>
<th>Graduated GPA</th>
<th>N</th>
<th>Withdrawn GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted GPA</td>
<td>(95)1.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>(16) 2.19</td>
<td>(22)</td>
<td>1.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>(27) 2.14</td>
<td>(30)</td>
<td>1.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actual GPA</td>
<td>(95)1.78</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>(16) 2.09</td>
<td>(22)</td>
<td>1.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>(27) 2.32</td>
<td>(30)</td>
<td>1.26</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACT scores were significantly higher for males than for females. As shown in Table 4, ACT scores for males who graduated exceeded ACT scores for females whether they graduated or withdrew (Table 4). There were also significant differences in terms of ACT scores between males who graduated and those who
withdrew. Females who graduated had significantly higher average scores than did those who withdrew, and the significance of this difference was greater than that for males.

Table 4. Mean comparisons of ACT scores by gender and residency of subjects who graduated or withdrew

<table>
<thead>
<tr>
<th></th>
<th>Graduated</th>
<th></th>
<th>Withdrew</th>
<th></th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>38</td>
<td>19.25 (4.62)</td>
<td>17.63 (4.41)</td>
<td>.03**</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>57</td>
<td>17.76 (5.59)</td>
<td>14.37 (4.51)</td>
<td>.04**</td>
<td></td>
</tr>
<tr>
<td>In-state</td>
<td>14</td>
<td>22.52 (4.19)</td>
<td>18.87 (3.24)</td>
<td>.007***</td>
<td></td>
</tr>
<tr>
<td>Out-of-state</td>
<td>81</td>
<td>17.32 (5.07)</td>
<td>15.82 (4.32)</td>
<td>.070*</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the 0.10 level.
**Significant at the 0.05 level.
***Significant at the 0.01 level.

ACT scores, by residency

Between in-state students who graduated and those who withdrew, there were significant differences in terms of composite ACT score (Table 4). Not surprisingly, the former had higher average scores than did the latter. The out-of-state students who graduated also had significantly higher ACT composite scores than did those who withdrew. But the significance of the difference, was less than that for in-state students. Interestingly, the average ACT score for out-of-state students graduating was lower than that for in-state students withdrawing.
High school rank

High school rank had a significant effect on graduation status (Table 5). Students graduating had a significantly higher high school rank than did those withdrawing. Students graduating finished in the upper 25 percent of their class, whereas those withdrawing finished in the lower half, but had relatively high scores on ACT or SAT (Table 5). There were almost no differences in terms of HSR or graduation status between either gender or residency groups.

Table 5. Mean comparisons of HSR, by gender and residency for students who graduated or withdrew

<table>
<thead>
<tr>
<th></th>
<th>Graduated</th>
<th></th>
<th>Withdrew</th>
<th></th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Male</td>
<td>38</td>
<td>73.08</td>
<td>18.50</td>
<td>58.72</td>
<td>20.84</td>
</tr>
<tr>
<td>Female</td>
<td>57</td>
<td>73.52</td>
<td>18.59</td>
<td>55.81</td>
<td>17.11</td>
</tr>
<tr>
<td>In-state</td>
<td>14</td>
<td>73.00</td>
<td>17.80</td>
<td>56.04</td>
<td>18.10</td>
</tr>
<tr>
<td>Out-of-state</td>
<td>81</td>
<td>73.46</td>
<td>18.72</td>
<td>56.05</td>
<td>18.14</td>
</tr>
</tbody>
</table>

Analysis of variance comparisons of graduation status, and HSR

<table>
<thead>
<tr>
<th>Main effects</th>
<th>Sum of squares</th>
<th>DF</th>
<th>Mean square</th>
<th>F Value</th>
<th>Significant F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grad</td>
<td>212099.886</td>
<td>8</td>
<td>26512.486</td>
<td>5.617</td>
<td>.000***</td>
</tr>
<tr>
<td>HSR</td>
<td>40897.999</td>
<td>1</td>
<td>40897.999</td>
<td>8.665</td>
<td>.004**</td>
</tr>
</tbody>
</table>

*Significant at the 0.10 level.
**Significant at the 0.05 level.
***Significant at the 0.01 level.
College major

No statistical analyses were conducted by major. A summary of graduation rates and enrollment distributions of the sample population in various colleges proved quite interesting, however in terms of graduation rates, four departments with small black enrollments, (business, hotel and restaurant management, marketing, and industrial engineering) had the highest graduation rates.

Table 6. Graduation rates by, major departments of sample populations

<table>
<thead>
<tr>
<th>Major</th>
<th>Graduation rate</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank</td>
<td>%</td>
</tr>
<tr>
<td>Business</td>
<td>1</td>
<td>9.3</td>
</tr>
<tr>
<td>Hotel &amp; Restaurant Management</td>
<td>2</td>
<td>9.3</td>
</tr>
<tr>
<td>Marketing</td>
<td>3</td>
<td>9.3</td>
</tr>
<tr>
<td>Industrial Engineering</td>
<td>4</td>
<td>9.3</td>
</tr>
<tr>
<td>Speech Communication</td>
<td>5</td>
<td>7.0</td>
</tr>
<tr>
<td>Financing</td>
<td>6</td>
<td>7.0</td>
</tr>
<tr>
<td>Family &amp; Consumer Journalism</td>
<td>7</td>
<td>4.7</td>
</tr>
<tr>
<td>Management</td>
<td>8</td>
<td>4.7</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>9</td>
<td>4.7</td>
</tr>
<tr>
<td>Fashion Merchandise</td>
<td>10</td>
<td>4.7</td>
</tr>
</tbody>
</table>

College Experiences of Black Students Graduating or Withdrawing from Iowa State University

The second phase of the study involved a survey of black students graduating or withdrawing from Iowa State University. During the telephone survey, participants were asked questions about their experiences both in and outside the classroom. Each
topic was placed in one of 15 related areas. These areas included reasons for attending Iowa State University; housing and living arrangements; social life; participation in campus activities; curricular interests; interactions with faculty, staff, and students; support services; racial discrimination; race and race relations; precollege experiences; student explanations for black students' high dropout rate; other educational experiences; and recommendations for change.

Statistical comparisons were made between the responses of students graduating (43) and those withdrawing (52). Comparisons were made to identify characteristics and behaviors associated with persistence.

Research Questions 3 & 4

3. What college experience factors are associated with black students persisting and graduating from Iowa State University?

4. What college experience factors are associated with black student not persisting and graduating from Iowa State University?

Reasons for attending Iowa State University

Students choosing to attend Iowa State University were primarily influenced by the academic reputation, the offering of a desired major, and the integrated setting. With the exception of financial aid and in-state residency, the order of
importance of motivational factors was the same for those who graduated and for those who did not. But the reasons for attending college were not effective tools with which to group motivation or persistence. Less pronounced reasons influencing student choices were university sponsored workshops and encouragement from high school teachers. There were no significant differences in terms of persisters' reasons for attendance.

![Figure 1. Reasons for attending Iowa State University](image)

**Housing and living arrangements**

More than 76% of the students had lived on campus as freshmen, but significantly fewer (55%) had lived on campus during most of their time at ISU. Students who withdrew were
more likely to have lived on campus throughout their college years than were those who graduated (Table 7). Those who withdrew, indicated that their need to find companionship, friendship, and support was a factor contributing to their living off-campus. They indicated that because they were not a part of the residence system and not involved in campus activities, they were less connected to the university than were those students who lived on campus, a greater percentage of whom graduated.

As entering freshmen, students who withdrew were significantly more likely to request black roommates, but fewer than half of all respondents had black roommates as freshmen. Both types of students were more likely to have black roommates after their freshman year.

There were two statistically significant differences between students who graduated and those who withdrew. Black students who graduated were significantly more likely to have had a black roommate at some point in their Iowa State University careers. Students who withdrew were statistically more likely to have requested a black roommate (Table 7).
Table 7. Housing and living arrangements of respondents graduating or withdrawing

<table>
<thead>
<tr>
<th>Housing Arrangements</th>
<th>Graduated N=43</th>
<th>Withdrew N=52</th>
<th>X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lived on campus as freshmen</td>
<td>87.80 (n-36)</td>
<td>78.43 (n-40)</td>
<td>.2384</td>
</tr>
<tr>
<td>Lived on-campus for most of their college years</td>
<td>51.21 (n-21)</td>
<td>63.26 (n-31)</td>
<td>1.327</td>
</tr>
<tr>
<td>Lived in a residence with more than 20 black students</td>
<td>63.63 (n-14)</td>
<td>46.87 (n-15)</td>
<td>1.473</td>
</tr>
<tr>
<td>Did not live on campus; lived with parents or relatives</td>
<td>6.25 (n-2)</td>
<td>27.27 (n-6)</td>
<td>1.216</td>
</tr>
<tr>
<td>As a freshman, had a black roommate</td>
<td>77.50 (n-31)</td>
<td>50.00 (n-24)</td>
<td>7.04***</td>
</tr>
<tr>
<td>Requested a black roommate</td>
<td>17.67 (n-7)</td>
<td>39.58 (n-19)</td>
<td>5.418**</td>
</tr>
</tbody>
</table>

Responses reported in percentages.
**Significant at the 0.05 level.
***Significant at the 0.01 level.

Social life

Sixty-two percent of students withdrawing felt that there were insufficient numbers of black students at Iowa State University to allow for a satisfactory social life. Forty-two percent of graduates felt the same. Three out of four (76%)
Table 8. Social life of black students at Iowa State University: responses of those who graduated or who withdrew

<table>
<thead>
<tr>
<th>Social life</th>
<th>Graduated N=43</th>
<th>Withdrew N=52</th>
<th>F-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>There were enough black students on campus for a satisfying social life</td>
<td>58.1% (n=25)</td>
<td>38.5% (n=20)</td>
<td>5.346**</td>
</tr>
<tr>
<td>Respondents socialized primarily with black students</td>
<td>76.74% (n=33)</td>
<td>75.00% (n=39)</td>
<td>4.228**</td>
</tr>
</tbody>
</table>

Responses reported in percentages.
**Significant at the 0.05 level.

stated that they socialized primarily with black students. In this area, responses of graduates were almost identical to those of dropouts.

Social conditions for blacks at Iowa State University were judged unsatisfactory because there were too few blacks. The majority of black students had come from urban areas, and Iowa State University's rural location detracted from the social atmosphere for many students. This lack of a comfortable social atmosphere, as will be discussed later in the study, is one of the problems contributing to withdrawal.
Participation in campus activities

Active involvement in campus activities and organizations was a significant factor for those blacks who graduated (Table 9). Respondents who graduated were active in one or more campus organizations.

Table 9. Participation in campus activities and organizations among respondents who graduated or withdrew

<table>
<thead>
<tr>
<th>Participation</th>
<th>Graduated N-43</th>
<th>Withdrew N-52</th>
<th>X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active in campus organizations</td>
<td>88.37% (n-38)</td>
<td>61.53% (n-32)</td>
<td>40.122***</td>
</tr>
<tr>
<td>Active in black student organizations</td>
<td>83.72% (n-36)</td>
<td>67.30% (n-35)</td>
<td>8.936***</td>
</tr>
<tr>
<td>Ran for office in campus organizations</td>
<td>48.83% (n-21)</td>
<td>32.69% (n-17)</td>
<td>29.333***</td>
</tr>
<tr>
<td>Held leadership positions in campus</td>
<td>62.70% (n-27)</td>
<td>30.76% (n-16)</td>
<td>41.842***</td>
</tr>
</tbody>
</table>

Responses reported in percentages.
***Significant at the 0.01 level.

Almost half the graduates said that they were active in at least three campus organizations. Forty-nine percent had run for office at least once and 63% had held leadership positions in campus organizations. Of the black student organizations and activities, participation rates were highest for the Black
Cultural Center Worship Service, the Black Student Government, the Black History Month activities, the Black Greek Association, and the black sororities (Table 10).

Table 10. Campus activities and organizations by percentage of respondents involved

<table>
<thead>
<tr>
<th>Rank</th>
<th>Campus activities/organizations</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Black Cultural Center Worship</td>
<td>46</td>
<td>48.4</td>
</tr>
<tr>
<td>2</td>
<td>Black Student Government</td>
<td>39</td>
<td>41.1</td>
</tr>
<tr>
<td>3</td>
<td>Black History Month</td>
<td>39</td>
<td>41.1</td>
</tr>
<tr>
<td>4</td>
<td>Black Greek Association</td>
<td>35</td>
<td>36.8</td>
</tr>
<tr>
<td>5</td>
<td>Sororities</td>
<td>26</td>
<td>27.4</td>
</tr>
<tr>
<td>6</td>
<td>Gospel Soul Innovators</td>
<td>19</td>
<td>20.0</td>
</tr>
<tr>
<td>7</td>
<td>Fraternities</td>
<td>17</td>
<td>17.9</td>
</tr>
<tr>
<td>8</td>
<td>ISU Society of Black Engineers</td>
<td>14</td>
<td>14.7</td>
</tr>
<tr>
<td>9</td>
<td>Voices Unlimited</td>
<td>8</td>
<td>8.4</td>
</tr>
</tbody>
</table>

Participation in campus activities was 28% greater for black students who graduated (89%) than for those who withdrew (61%). Differences in participation rates were statistically significant at the .01 level. For black students, active participation was one of the significant factors present among graduates and may therefore be correlated with persistence.
Curricular interests

Students graduating were statistically more likely to have taken a course in black culture (.05) than were those who withdrew. As shown in Table 11, a slightly greater percentage of those graduating had changed majors at least once. In other words students having changed majors were less likely to withdraw.

Table 11. Curricular interests of respondents who graduated or who withdrew

<table>
<thead>
<tr>
<th>Curricular decisions</th>
<th>Graduated</th>
<th>Withdrew</th>
<th>X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changed major</td>
<td>46.57</td>
<td>42.30</td>
<td>.26578</td>
</tr>
<tr>
<td>(n-20)</td>
<td>(n-22)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed course in black culture</td>
<td>46.51</td>
<td>23.07</td>
<td>5.786**</td>
</tr>
<tr>
<td>(n-20)</td>
<td>(n-12)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Responses reported in percentages
***Significant at the 0.01 level

Forty-six percent of black students who graduated and 23% of those who withdrew had completed a course in black culture at Iowa State University. The students who withdrew indicated that during their tenure at Iowa State University either they had not found a black culture course or they had not been able to fit one into their schedule. Six respondents spoke bitterly about how they had been discouraged by advisors from "wasting their time" on such courses. For the students who matriculated to
graduation, they were in school as Iowa State was making a concerted effort to bring diversity to the campus and thus had the opportunity to complete a course in black culture.

**Interactions with faculty, staff, and students**

The importance of faculty and staff to retention rate is illustrated in Table 12.

<table>
<thead>
<tr>
<th>Interactions</th>
<th>Graduated N=43%</th>
<th>Withdrew N=52%</th>
<th>X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was taught by a black instructor</td>
<td>31.70% (n=13)</td>
<td>38.46% (n=20)</td>
<td>.4568</td>
</tr>
<tr>
<td>Had black faculty member serving as advisor to organization</td>
<td>67.44% (n=29)</td>
<td>42.30% (n=22)</td>
<td>4.711**</td>
</tr>
<tr>
<td>Could readily go to black faculty member for advice</td>
<td>60.46% (n=26)</td>
<td>59.61% (n=31)</td>
<td>.0070</td>
</tr>
<tr>
<td>Considered one faculty member, administrator, or staff member was most influential in studies</td>
<td>60.46% (n=26)</td>
<td>46.15% (n=224)</td>
<td>1.933</td>
</tr>
<tr>
<td>Influential member was not black</td>
<td>44.32% (n=19)</td>
<td>40.38% (n=21)</td>
<td>.2978</td>
</tr>
</tbody>
</table>
Table 12. Continued.

<table>
<thead>
<tr>
<th>Interactions</th>
<th>Graduated N-43%</th>
<th>Withdrawn N-52%</th>
<th>X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Felt that professors (some or many) made black students feel good about themselves</td>
<td>56.09% (n-23)</td>
<td>33.33% (n-17)</td>
<td>4.792**</td>
</tr>
<tr>
<td>Professors (some or many) took a personal interest in black students</td>
<td>35.71% (n-15)</td>
<td>22.00% (n-11)</td>
<td>11.27***</td>
</tr>
</tbody>
</table>

Responses reported in percentages.

**Significant at the 0.05 level.

***Significant at the 0.01 level.

Both study groups said that it was quite important to have black faculty and staff to serve as role models, mentors, friends and advisors, thus providing an environment more conducive to success for black students.

Faculty and staff of both races positively influenced black students during their days at Iowa State University. About 35% of all black students had been taught by a black instructor. Sixty percent of those who graduated stated that one faculty member, administrator, or staff member was most positively influential in their studies. But, on the other hand less than half (46%) of those withdrawing felt similarly.

Just over half of those who graduated felt that it was important to have professors who made them feel good about themselves and who took a personal interest in their studies.
Thus, both black and white faculty can be positive factors in increasing retention.

White students at Iowa State University made more attempts than did white faculty or staff to bring black students into the mainstream of student life. Black students graduating gave statistically more significantly positive responses regarding faculty and staff than did students withdrawing (Table 13).

Table 13. Attempts of faculty, staff, and students to bring black students into the mainstream of student life, respondents who graduated or withdrew

<table>
<thead>
<tr>
<th>Attempts made by</th>
<th>Graduated N-43%</th>
<th>Withdraw N-52%</th>
<th>X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>44.18%</td>
<td>30.76%</td>
<td>11.58***</td>
</tr>
<tr>
<td></td>
<td>(n-19)</td>
<td>(n-16)</td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>34.88%</td>
<td>21.15%</td>
<td>11.27***</td>
</tr>
<tr>
<td></td>
<td>(n-15)</td>
<td>(n-11)</td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>48.83%</td>
<td>46.15%</td>
<td>0.4794</td>
</tr>
<tr>
<td></td>
<td>(n-21)</td>
<td>(n-24)</td>
<td></td>
</tr>
</tbody>
</table>

Responses reported in percentages
**Significant at 0.05 level.

Statistically significant results were achieved for the positive relationships developed between black students who graduated and white faculty and white staff (Table 14).
Table 14. Relations with white faculty, staff, and students reported as excellent or good by respondents who graduated or withdrew

<table>
<thead>
<tr>
<th>Relations with</th>
<th>Graduated</th>
<th>Withdraw</th>
<th>X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>White faculty</td>
<td>58.13% (n-25)</td>
<td>23.07% (n-12)</td>
<td>16.006***</td>
</tr>
<tr>
<td>White staff</td>
<td>44.18% (n-19)</td>
<td>28.84% (n-15)</td>
<td>4.372**</td>
</tr>
<tr>
<td>White students</td>
<td>39.53% (n-17)</td>
<td>44.23% (n-23)</td>
<td>3.434</td>
</tr>
</tbody>
</table>

Responses reported in percentages.
**Significant at the 0.05 level.
***Significant at the 0.01 level.

Students who graduated reported that their interactions in the classroom and in campus organizations seemed the major sources of a positive college experience.

More than 60% of all respondents used the tutorial service at Iowa State University. But less than half took advantage of

Table 15. Support services used by respondents who graduated or who withdrew

<table>
<thead>
<tr>
<th>Support Services</th>
<th>Graduated</th>
<th>Withdraw</th>
<th>X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial services</td>
<td>62.79% (n-27)</td>
<td>38.46% (n-20)</td>
<td>5.1865**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used tutorial</td>
<td>62.79% (n-27)</td>
<td>61.53% (n-32)</td>
<td>.00002</td>
</tr>
<tr>
<td>services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used counseling</td>
<td>44.18% (n-19)</td>
<td>44.23% (n-23)</td>
<td>.13847</td>
</tr>
<tr>
<td>services</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Responses reported in percentages.
**Significant at 0.05 level.
counseling services. Moreover, students who graduated felt that the university provided adequate financial services. Sixty-two percent who withdrew felt that the university did not provide sufficient financial support for them to persist (Table 15).

Respondents were asked to identify which office, program, or organization most eased their academic and social adjustment to the university. Figure 2 portrays, in rank order the offices, programs, and organizations mentioned as helpful. The Office of Minority Student Affairs was the most widely cited source of support, with the Black Cultural Center, and black sororities and fraternities ranked second and third respectively (Figure 2).

Figure 2. Helpful offices, programs, and organizations for black students
In general, about one-half of both groups felt that financial aid services at Iowa State University were sufficient to pay tuition. So concern over financial problems was not a significant predictor of attrition. The major sources of funding were federal/university loans, federal/university grants, parents, and savings. When students' or parents' savings were involved, students were more likely to graduate. This also held true for students on academic scholarships (Table 16). Most indicated that they had tapped more than one source of funding to meet educational needs.

**Table 16. Major sources of funding for the college education of black student respondents who graduated or withdrew**

<table>
<thead>
<tr>
<th>Sources of funding</th>
<th>Graduated N-43%</th>
<th>Withdrew N-52%</th>
<th>X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents' earnings/savings</td>
<td>32.55% (n-14)</td>
<td>44.23% (n-23)</td>
<td>1.348</td>
</tr>
<tr>
<td>Student's earnings/savings</td>
<td>44.18% (n-19)</td>
<td>28.84% (n-15)</td>
<td>2.410</td>
</tr>
<tr>
<td>Federal/university loans</td>
<td>69.76% (n-30)</td>
<td>59.61% (n-31)</td>
<td>1.055</td>
</tr>
<tr>
<td>Federal/university grants</td>
<td>46.51% (n-20)</td>
<td>46.15% (n-24)</td>
<td>.0012</td>
</tr>
<tr>
<td>Academic scholarships</td>
<td>27.90% (n-2)</td>
<td>15.38% (n-8)</td>
<td>2.220</td>
</tr>
<tr>
<td>Federal/university loans</td>
<td>69.76% (n-30)</td>
<td>59.61% (n-31)</td>
<td>1.055</td>
</tr>
<tr>
<td>Other sources</td>
<td>11.62% (n-30)</td>
<td>3.84% (n-31)</td>
<td>2.088</td>
</tr>
</tbody>
</table>

Responses reported in percentages.  
**Significant at the 0.05 level. **  
***Significant at 0.01 level.***
Most respondents felt that more than a few racial difficulties were likely to affect black students at Iowa State University. On a scale of 1 to 10, with 10 indicating "a lot" and 1 indicating "none," respondents were asked to rate racial discrimination in the classroom and in social activities. On average, students felt that there was somewhat more racial discrimination in the classroom (mean=6.6) than in the social setting (mean=6.0). Only minute differences existed between ratings given by students who graduated and those given by students who withdrew. For example, both groups complained of being ignored and treated as inferior. Others complained of being dissuaded from doing research about blacks and other minorities because it was not worthy research. In the classroom, many had to endure blatant racism i.e. hearing negatively stereotyped information about blacks. Social setting tended always to be geared towards white students. Moreover, even though racism existed in social activities, respondents felt that they could have opted not to participate and would have never been missed.

Racial discrimination

In Figure 3, areas of discrimination identified by respondents are given in rank order. Seventy percent of all students indicated that the major area of racial difficulty was
alienation. The second most important area was professors' conveying the message that black students were inferior (63.2%). Sixty-one percent of respondents felt that white students conveyed this same message. The primary problem cited regarding professors was that they arbitrarily graded black students lower than white students (60%). Specific racial incidences in and outside of the classroom were cited by 58% of all the respondents. And most felt that professors did not call on black students enough (43%).

Figure 3. Areas of racial discrimination as perceived by respondents
In a comparison of the responses of students who graduated and those of students who withdrew, two areas of racial difficulty are significant (Table 17). A greater majority of students graduating (74.41% vs. 67.30%) felt that alienation affected black students at Iowa State University. More graduates also felt that professors arbitrarily graded black students lower than they did white students (34.88% vs. 21.15%).

Table 17. Racial discrimination as perceived by respondents who graduated or who withdrew

<table>
<thead>
<tr>
<th>Levels of discrimination</th>
<th>Graduated N-43%</th>
<th>Withdrew N-52%</th>
<th>X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Felt alienated</td>
<td>74.41% (n-32)</td>
<td>67.30% (n-35)</td>
<td>0.572</td>
</tr>
<tr>
<td>Had professors who conveyed the message that black students are inferior</td>
<td>44.19% (n-19)</td>
<td>48.08% (n-25)</td>
<td>1.47</td>
</tr>
<tr>
<td>White students conveyed the feeling that black students are inferior</td>
<td>67.44% (n-29)</td>
<td>55.76% (n-29)</td>
<td>6.522***</td>
</tr>
<tr>
<td>Believed professors did not call on black students</td>
<td>37.20% (n-16)</td>
<td>48.07% (n-25)</td>
<td>1.13</td>
</tr>
<tr>
<td>Believed professors graded blacks students lower than white student</td>
<td>34.88% (n-15)</td>
<td>21.15% (n-13)</td>
<td>4.836**</td>
</tr>
<tr>
<td>Experienced little or no discrimination in the classroom</td>
<td>28.57% (n-12)</td>
<td>23.07% (n-12)</td>
<td>3.236</td>
</tr>
<tr>
<td>Experienced little or no discrimination in social activities</td>
<td>18.60% (n-8)</td>
<td>34.52% (n-18)</td>
<td>4.216</td>
</tr>
</tbody>
</table>

Responses reported in percentages.

**Significant at 0.05 level.     ***Significant at 0.01 level.
Despite racial difficulties, black students liked Iowa State University. On a scale of 1 to 10, with 10 indicating "liked a lot," the average rating for all respondents was 6.8. The average for students graduating was significantly greater than that for those withdrawing (01). The ratings of all students who liked ISU a lot (rating 7-10) were compared and, as expected, findings were statistically significant. A greater majority of those graduating liked ISU a lot (72.1%) than did those withdrawing (38.5%).

**Personal feelings attributed to university experience**

A significantly greater number of students graduating than of those withdrawing (72% vs. 38%) stated that they liked Iowa State University a lot. This difference is reflected in statements about university experience. Responses to five of the six statements shown in Table 18 were statistically significant. Whereas the majority of all respondents was somewhat positive about their university experience, more students graduating agreed or strongly agreed with the statements concerning personal feelings. More graduates felt that the university helped them feel confident and develop positive attitudes towards themselves. These students grew emotionally as a result. Of particular significance is that more of those graduating felt that negative experiences at the
Table 18. Personal feelings attributed to university experience, as expressed by respondents who graduated or withdrew

<table>
<thead>
<tr>
<th>Personal feelings: agreed or strongly agreed with statements</th>
<th>Graduated N-43</th>
<th>Withdraw N-52</th>
<th>X²</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a student, I liked ISU a lot</td>
<td>72.09%</td>
<td>38.46%</td>
<td>22.142***</td>
</tr>
<tr>
<td>(n-31)</td>
<td>(n-20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The university helped me feel that I am a person of worth</td>
<td>43.90%</td>
<td>36.53%</td>
<td>4.219</td>
</tr>
<tr>
<td>(n-18)</td>
<td>(n-19)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The university made me feel that I am able to do things as well as other people</td>
<td>62.79%</td>
<td>44.23%</td>
<td>5.7154**</td>
</tr>
<tr>
<td>(n-29)</td>
<td>(n-23)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experiences that I had at the university made me feel that I am a person of value</td>
<td>67.44%</td>
<td>40.00%</td>
<td>6.765**</td>
</tr>
<tr>
<td>(n-27)</td>
<td>(n-21)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experiences that I had at the university helped me to develop a more positive attitude toward myself</td>
<td>55.81%</td>
<td>36.53%</td>
<td>16.581***</td>
</tr>
<tr>
<td>(n-24)</td>
<td>(n-19)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The negative experiences at the university motivated me to try harder</td>
<td>76.74%</td>
<td>53.84%</td>
<td>17.946***</td>
</tr>
<tr>
<td>(n-33)</td>
<td>(n-28)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Responses reported in percentages.
**Significant at the 0.05 level.
***Significant at the 0.01 level.

university motivated them to try harder and thus propelled them to succeed. In addition, the effects of active participation in campus activities and the development of positive relationships
with white faculty, staff, and students by those black students graduating were also reflected in students' attitudes towards the university.

Opinions on race and race relations

Forty-two percent of respondents identified themselves racially as "black." "African-American" was the second most common (32.6%) identifying term used. Sixty-one percent felt that blacks had little power or influence over American life and politics. This feeling is reflected in the responses to statements reproduced in Table 19. Twenty-five percent of respondents indicated that they did not have a preference for being refereed to as black or African American.

More of the students graduating tended to agree or to strongly agree that blacks do not have the same opportunities as whites; these students, however, wondered whether blacks were adequately prepared to make use of the opportunities that do come their way. More than 65% of both groups agreed that to overcome discrimination, individual blacks must be better trained and better qualified than the most qualified white person. Results found statistically significant were that more of the students graduating felt that discrimination faced by blacks could not be solved by individual effort alone.
Even more discouraging, significantly more students withdrawing felt that they could not get ahead, regardless of their effort, because of the opposition of whites (Table 19).

Table 19. Opinions on race relations, as expressed by respondents who graduated or withdrew

<table>
<thead>
<tr>
<th>Opinions: Agreed or strongly agreed with statements</th>
<th>Graduated N-43%</th>
<th>Withdrew N-52%</th>
<th>( \chi^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am limited by false assumptions or expectations that others hold about me because of my race</td>
<td>51.2% (n-22)</td>
<td>61.6% (n-32)</td>
<td>3.959</td>
</tr>
<tr>
<td>In college, I identified with my race by sitting in the section of the cafeteria, football stadium, or basketball gym that was all black</td>
<td>46.5% (n-20)</td>
<td>55.8% (n-29)</td>
<td>4.186</td>
</tr>
<tr>
<td>Blacks face discrimination that can't be solved by individual effort alone</td>
<td>78.5% (n-33)</td>
<td>63.5% (n-33)</td>
<td>8.532**</td>
</tr>
<tr>
<td>Blacks do not have the same opportunities as do whites</td>
<td>88.3% (n-38)</td>
<td>71.1% (n-37)</td>
<td>4.756*</td>
</tr>
<tr>
<td>To overcome discrimination, individual blacks must be better trained and better qualified than the most qualified white</td>
<td>72.1% (n-31)</td>
<td>65.4% (n-34)</td>
<td>4.996*</td>
</tr>
<tr>
<td>If blacks try hard enough, they can get ahead despite opposition from whites</td>
<td>55.8% (n-24)</td>
<td>36.6% (n-19)</td>
<td>11.85***</td>
</tr>
<tr>
<td>Many blacks have not prepared themselves to make use of the opportunities that come their way</td>
<td>69.8% (n-30)</td>
<td>36.6% (n-19)</td>
<td>12.23***</td>
</tr>
</tbody>
</table>

Responses reported in percentages.
*Significant at the 0.05 level.
**Significant at the 0.01 level.
***Significant at the 0.10 level.
Pre-college experiences

More than 50% of the respondents had been encouraged by a high school teacher or counselor to attend college, and over 90% of parents had backed their child's college plans. The majority of respondents grew up in urban areas. Of statistical significance is that although some who graduated may have lived in predominantly black neighborhoods during high school, more attended high schools that were at least 50% white (Table 20).

In addition, among those who were not only children, respondents were not usually not the first sibling to attend college. Neither education nor parents' occupation seemed to influence persistence. The majority of students had one parent who had received at least a high school diploma, and a father who was in a professional, technical, or white-collar occupation. There is conflicting evidence on the relation of the father's occupation to persistence. For students whose fathers had no high school education or were college dropouts, a negative relation existed between father's education and child's persistence.
| Table 20. Precollegiate experiences of respondents who graduated or withdrew |
|-----------------------------------------------|------------------|------------------|
| Opinions: Agreed or strongly agreed with statements | Graduated N-43 | Withdrew N-52 | X2 |
| Encouraged by high school teacher or counselor to attend college | 58.1% (n-25) | 50.0% (n-26) | 1.750 |
| Participated in ISU sponsored programs while in high school | 18.6% (n-8) | 25.0% (n-13) | 0.828 |
| Parents backed college plans | 95.3% (n-41) | 84.6% (n-44) | 1.188 |
| Spent most of life to age 18 in the midwest | 81.0% (n-34) | 73.1% (n-38) | 3.598* |
| Was first sibling to attend college | 52.5% (n-21) | 48.9% (n-22) | 5.699** |
| Attended a high school at least 50% white | 44.2% (n-38) | 30.77% (n-16) | 5.456** |
| Lived in a predominantly black neighborhood during high school | 27.9% (n-12) | 54.8% (n-28) | 0.042 |

<table>
<thead>
<tr>
<th>Parents</th>
<th>Graduated N-43</th>
<th>Withdrew N-52</th>
<th>X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>One parent had received a high school diploma</td>
<td>83.8% (n-31)</td>
<td>48.1% (n-25)</td>
<td>5.456**</td>
</tr>
<tr>
<td>Father's occupation was professional, technical, or white collar</td>
<td>40.5% (n-15)</td>
<td>34.4% (n-18)</td>
<td>5.089*</td>
</tr>
<tr>
<td>Mother's occupation was professional, technical, or white collar</td>
<td>58.5% (n-24)</td>
<td>38.4% (n-20)</td>
<td>0.354</td>
</tr>
</tbody>
</table>

Responses reported in percentages.
*Significant at the 0.05 level.
**Significant at the 0.10 level.
Students' explanation of Iowa State University's high black dropout rate

Respondents were asked their opinions about why Iowa State University has a higher dropout rate for black than for white students. Almost 2 to 1, students cited the lack of helpful Black faculty/staff as the primary reason. The second most mentioned reason was lack of financial aid. Several of the reasons most frequently cited in retention studies, such as personal or family problems, were not considered major factors affecting dropout (Figure 4).

Figure 4. Reasons for high black dropout rate at ISU
Indifferent administrative staff or professors was a typical dropout complaint. But the suggestion that lack of social and cultural opportunities created social and academic disadvantages for black students piqued the interest of the investigator. In fact, 80% of students who graduated expounded on this topic.

Students felt that a generally white campus orientation gave white students an advantage. Feelings of "getting lost in the whiteness" and "culture shock" were said to create adjustment difficulties. Students felt alien and unwelcome, surely not feeling a part of the "Iowa State family." All these factors clearly contributed to feelings of isolation and loneliness among Iowa State University black students.

Other Educational Experiences

Of the 52 students who had withdrawn from the university, 17 (32.69%) indicated that they had transferred to another institution of higher education and graduated. Factors contributing to their success at the other institution were primarily supportive staff, better academic advising, and lower tuition.
Table 21. Factors contributing to success at new university as reported by respondents who withdrew (N=52)

<table>
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<th>Rank</th>
<th>Factor</th>
<th>Times</th>
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<tr>
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<td>Supportive faculty</td>
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<td>29.4</td>
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<tr>
<td>2</td>
<td>Academic advising</td>
<td>3</td>
<td>17.6</td>
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<tr>
<td>3</td>
<td>Lower tuition</td>
<td>2</td>
<td>3.8</td>
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<td>4</td>
<td>Personal &amp; other factors</td>
<td>1</td>
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<td>4</td>
<td>Smaller classes</td>
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<td>4</td>
<td>New or better environment</td>
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CHAPTER V. SUMMARY, CONCLUSION, AND RECOMMENDATIONS

The major purpose of this study was to investigate factors contributing to low retention and graduation rates among black students at Iowa State University. Based on the statistical analyses reported in the previous chapter this section summarizes and concludes the study. Finally, recommendations are made to the university in the hopes of improving the low retention and graduation rates of black students.

Summary

The academic quality of black students at Iowa State University has increased as a result of refined admission criteria. Total educational experience however, still requires reform. As minority recruitment efforts increase the population of black students at Iowa State University, efforts to retain and graduate these students have often been interrupted by circumstances beyond the university's control. For many black students, factors such as precollege preparation, large white students population, and rural setting have adversely affected the college environment. Those environmental factors that negatively and positively impress some black students and which the university may control have been the focus of this study.
Low retention and graduation rates for black students at Iowa State University signify that although the university has been attempting to accommodate black students, many of their needs remain unmet. The problem was to identify the factors encouraging or impeding retention and graduation at Iowa State University. The aforementioned factors were categorized as either fixed (precollegiate experience) or nonfixed (collegiate experience). Data on fixed factors were provided by the university, and those on nonfixed factors were obtained from the black students who had graduated or withdrawn from Iowa State University. As expected, black students who had graduated were quite willing to share information about the campus. In contrast, 2% of students who had withdrawn were not.

In terms of student histories (fixed factors) black females were more successful at Iowa State University than were black males. Moreover, students who graduated had higher ACT scores, HSRs, and GPAs than had students who did not. Generally, out-of-state students were more successful than were Iowa residents. ACT scores were significantly greater for males than for females. Total ACT scores for males who graduated exceeded those of females who graduated or who withdrew. Females who graduated had higher average ACT scores than did females who withdrew; the significance level was also greater than that for males. Interestingly, the out-of-state subjects who graduated had significantly higher ACT composite scores than did the out-
of-state subjects who withdrew. The average ACT scores for out-of-state students who graduated were below the average ACT scores of the in-state students who withdrew. High school rank had a positive impact on students who graduated. On the average, students who graduated finished in the upper quarter of their class, compared with the lower half of the class for those who withdrew. There were no significant differences for either gender in terms of HSR and graduation status.

In terms of college experiences, the students who chose to attend Iowa State University were greatly influenced by the school's academic reputation, its location, and the offering of a desired major. The family influence, in terms of parental education and occupation, and other siblings' having already attended college, did encourage persistence. Two reasons not particularly influential were teacher encouragement and university sponsored workshops.

Inclusive of the college experience, three areas were identified as primary factors associated with retention and graduation at Iowa State University. Affiliation with campus organizations was one area identified. Student involvement in campus organizations, not necessarily predominantly black organizations was an indicator of students success. Persistence of black students was directly correlated with active involvement in campus activities and organizations. According to the data, participation in campus activities was somewhat
greater for black students who graduated (89%) than for those who withdrew (61%). On average, black students who graduated were active in at least three campus organizations. Of those who graduated, 49% had run for office at least once, and 63% had held leadership positions in campus organizations. Studies by Patterson, Sedlacek, and Perry (1984) and by Willie and McCord (1972) also found that persisters participated in extracurricular activities more often than dropouts. Other studies, e.g. Terenzini, Pascarella and Lorang (1982) and Mallinckrodt (1988), delineated activities, ranging from involvement in social activities to use of campus facilities, were important contributors to retention.

Positive interactions with faculty and staff, although not all statistically significant, are instrumental in influencing black students positively. Less than 40% of the students who graduated or withdrew from Iowa State University had been taught by a black instructor. The results of this study indicate that those who graduated felt it especially important to have professors who made them feel good about themselves and who took a personal interest in them as students. Greater than 60% of students who graduated stated that one faculty member, administrator, or staff member was most influential in their studies. The role of the black faculty member in serving as an advisor for students or for student organizations was important for more than 67% of students who graduated. This finding is
consistent with findings of the studies of both Gill (1987) and Fleming (1984), who suggested that positive relations with faculty lead to increased persistence. Williams (1987) found that initial positive contact with faculty is extremely important for black students, especially when the faculty member is not a member of a minority race. Johnson (1976) found that whereas some students need to relate to members of the same ethnic group, others do not. But as Loo and Rolinson (1986) found in their interviews with both black and white students, 89% felt it important to have black faculty on campus. McClung, Waddle, and Harris' (1988) study at Clemson University found that students tend to identify closely with faculty of their own race.

Another area identified as a contributor to both retention and graduation at Iowa State University was housing arrangements. Greater than 87% of the black students had lived on campus as freshmen, however just over half (55%) had lived on campus most of their college years at Iowa State University. Students who withdrew were more likely to live on campus throughout their college years than were those who graduated (63.26% and 57.21% respectively). But according to Astin (1977) and Chickering (1974), on-campus residency and persistence are positively related. Astin (1977) suggested that living on campus not only increased student involvement in extracurricular activities, but also increased interaction with faculty. Astin
maintained that these actions enhanced self-esteem and increased persistence, as well as the chance that a student would work towards a graduate or professional degrees. According to these early studies, students would more likely be satisfied with the institution and with the general college experience when college years were spent on campus.

In housing and in living arrangements, there were two statistically significant differences between students who graduated and those students who withdrew. Students were relatively likely to have black roommates after their freshman years, and a great percentage of both study groups had had black roommates at some point during their time at Iowa State University. Black students who graduated were significantly more likely to have had a black roommate at some point during their time at Iowa State University. Students who withdrew were statistically more likely than those who graduated to request a black roommate. A similar study at Clemson University (1988) found that living on campus and having a black roommate both had a positive influence on persistence. The findings of the study would validate the former relations, in that data show that blacks never having had black roommates withdrew at a greater rate than did those having had black roommates at some point.

The selection of a black student as a roommate is motivated by a desire to live with a friend and to create a world that a black student can truly call his/her own in a campus environment
not often catering to his/her needs (Brodie, 1991). According to Willie and McCord (1972), a disproportionately high number of blacks at predominantly white institutions have mostly other blacks as friends. Stikes (1984) suggested that black students live their lives defensively to protect themselves, particularly from racial confrontations.

In a study of blacks on predominantly white campuses in North Carolina, (1984) the racial prejudice perceived by black students exacerbated mistrust of whites, alienation, and separation. Thompson and Fretz (1991) concluded that as a result of a history of oppression and continued discrimination, blacks have had to adopt strategies for coping with the dominant culture and its institutions. Aitkens (1982) contends that satisfaction with the residential living experience is positively related to student retention and graduation.

Overwhelmingly, the main reason for Iowa State University's high drop-out rate, as cited by former black students, was sociocultural. Both groups of former students expounded on the topic. Sixty-two percent of students who had withdrawn felt that there were insufficient numbers of black students at Iowa State University to provide a satisfactory social life. Forty-two percent of the graduates agreed. Both groups complained that social activities sponsored by the university did not take black and other minorities into consideration. Activities such as VEISHIA tend to center around Greek competition, when it is
a known fact that black Greek organizations tend to have limited membership and do not own houses. Homecoming was another event that most former students felt did not provide activities geared towards attracting black students.

Most former black students felt that a generally white campus orientation gave white students an advantage. Feelings of "getting lost in the whiteness" and "culture shock," too created adjustment difficulties. Students had a feelings of not belonging, of being unwelcome, of not fitting in, i.e., of not feeling a part of the "Iowa State family." A lack of role models and support systems to help with these problems were often cited. Studies by Willie and McCord (1972) and by Harper (1975) found that blacks on predominantly white campuses were least satisfied with their social and intellectual lives; much of this dissatisfaction stemmed from lack of black cultural events and lack of courses on the black experience.

Among former black students who had withdrawn, attrition was also related to scarcity of black faculty and staff. Two-thirds of all black students cited the lack of helpful black faculty/staff as a primary problem with the Iowa State University environment. Former students who had withdrawn indicated that faculty, staff or advisors did not express concern by taking a personal interest in students or establishing a genuinely caring academic rapport. A study by Fleming (1984) supports this finding in that white students
receive the most attention from teachers, and black students receive the least. Thus McClung, Waddle, and Harris's (1988) assumption that contact with faculty helps student intellectual and social development is upheld. Both black and white faculty can positively affect retention. Harvey (1985) concluded that absence of or small number of black faculty on campus contributes to the decline in the number of black students. He maintained further that black faculty members are key role models and mentors, both of which have been considered essential to the fostering of academic and social climates conducive to black student success on predominantly white campuses.

Racial discrimination also had a negative impact on both retention and graduation for black students attending Iowa State University. Most respondents felt that there were more than a few racial difficulties affecting black students during their time at Iowa State University. On average, students felt that there was more racial discrimination in social activities than in the classroom. A common statement made by former black students at Iowa State University, and stressed by Willie and McCord (1972), was that social activities are "geared toward white students." Madrazo, Peterson, and Rodriguez' (1978) findings support this view: minorities on a predominantly white campus perceived the university's and its surrounding community's activities as directed towards white students. Although rural areas are not without some recreational
facilities, racial prejudices, real or perceived, present barriers to its free use by black students (Fleming, 1984; Dicesare, Sedlacek, and Brooks, 1972). Many former students recalled having had security guards follow them through the mall if they were in groups larger than three, being ignored when they entered restaurants or denied entrance to certain activities held off campus.

In a comparison of the responses of students who graduated with those of students who withdrew, two areas of racial difficulty were significant. Seventy percent of the former students indicated that the major area of racial difficulty was that of alienation. More students who graduated (74.41% vs. 67.30%) felt that alienation affected black students at Iowa State University. A possible cause of alienation is "culture shock" as Remsik (1979) terms it, which is much more severe for black students than for white students. Cortina (1980) and Goodrich (1980) believe that alienation leads to increased attrition for black students. Suen (1983) also found that alienation was directly related to attrition and indirectly related to GPA for black students.

The second major area of racial difficulty experienced by black students was that professors tended to convey the impression that black students are inferior (63.2%). More graduates than nongraduates also felt that professors arbitrarily graded black students lower than white students.
(34.88% vs. 21.15%). Many felt that professors did not call on black students enough in class (43%). Elam (1982) stressed that one of the misconceptions in the academic world is that black people are "exclusively dumb"; that is, it is not specific black students who perform poorly; it is all black students. Swift's (1986) study supports the idea that white faculty believe black students are lazy and indifferent to the quality of education. Valverde (1985) believes that erroneous assumptions on the part of faculty in relation to minority students can negatively affect faculty-student relationships. Willie and McCord (1972) also cited problems with professors, ranging from lack of acknowledgement of black students to avoidance when students sought help and to discouragement of interest in black culture.

Despite the racial difficulties cited by students, on average the majority of black students who graduated liked Iowa State University a lot compared with the minority who withdrew. This difference was significant and is reflected in statements about the university experience. More graduates felt that the university helped them gain confidence and develop positive self-concepts. At Clemson University, McClung, Waddle, and Harris (1988) found that some students persisting until graduation grew positively as a result. Of special significance in this study is that more of those who graduated felt that negative experiences at the university motivated them to try harder and thus to graduate. An interesting response was that
learning to deal with these negative campus experiences helped students deal with the real world because "the world is not black."

More students who graduated than those who withdrew tended to agree or to strongly agree that blacks do not have the same opportunities as do whites; those students who graduated however, felt that many blacks had not been adequately prepared to make use of the relatively few opportunities coming their way. More than 50% of both groups agreed that to overcome discrimination, individual blacks must be better trained and better qualified than the most qualified white. According to Turner and Turner (1975), blacks felt that they experienced more occupational discrimination than whites did. Significantly more students who graduated than those who withdrew felt that discrimination faced by blacks could not be solved by individual effort alone. Significantly more students who withdrew than those who graduated felt that they could never get ahead, regardless of help or opposition from whites.

When asked for recommendations for faculty and staff to improve black student retention and graduation to offset the negative factors revealed in this study, more than half the former students who had withdrawn suggested that advisors should make sure that students take appropriate classes and prerequisites before being allowed to enroll in difficult classes. Participants who withdrew recommended that faculty,
staff, and advisors serve as positive role models for black students, be honest about the obstacles facing black students at Iowa State University, and assist students in preparing themselves for academic challenges. These role models would need to help black students in time of crisis, to have regular, updated progress meetings with students, and to help students deal with culture shock.

Needed changes for the university as suggested by black students who withdrew included hiring more black faculty and staff members to serve as role models and mentors. Greater than 60% of these students stated that recruiting and retaining additional black students were necessary to promote a balanced academic and social life. It was also recommended that white faculty and staff go through an intense diversity/sensitivity training to learn how to interact with minorities. A great percentage of the students felt that the university should establish a retention program to help back students succeed. Establishment of an Afrocentric curriculum for at least one course in each college was recommended by 13% of former students.

Students who graduated echoed many of these suggestions. A common suggestion among black students who graduated was that there needs to be an introduction of black students to black staff/faculty on campus and to the campus resources geared to black and other minority students. Greater than 50% felt that
Iowa State University needs to learn how to communicate with students of all races by developing diversity/educational programs to help faculty, staff, and students understand one another. Racist and discriminatory attitudes and practices of white professors and staff ranked highest on the list of dislikes. Twenty percent of those who graduated suggested that an evaluation of programs designed to meet the needs of black students be conducted; that the university recruit and retain more minority students, faculty, and staff; and that the university assign someone to explain its organizational structure to black students and to document racial incidents and follow them up. Slightly greater than 61% of students felt that the university should provide a welcoming atmosphere for black students with speakers, workshops, seminars, and cultural activities available throughout the year in contrast to Black History Month. Eighty-seven percent of students recommended that the university contract a black beautician and barber. Those who graduated also advised university personnel to listen to black students and not belittle their efforts or dismiss them as lazy or shiftless.

The question of what advice should be given perspective black students by former black students elicited mixed reactions. Students who withdrew said that they would advise prospective students to get involved in activities, not to be afraid of interacting with nonminority students, and to consult
all tutorial and support services. Most importantly, 65% of those who withdrew indicated that they would advise prospective students to develop a support system including other black students, faculty and staff immediately; establish a rapport with professors so that they would know that the student is interested in succeeding at Iowa State University; and remain optimistic, i.e. not allow anyone to rob the student of self-esteem. A small percentage of these students who withdrew recommended that other students not attend ISU, because of racist and discriminatory practices and policies.

Among students who graduated, the nearly unanimous theme was that other blacks considering Iowa State University be prepared to work hard. The graduates suggested that prospective black students should communicate with other students currently enrolled, as well as with those who have graduated from Iowa State University. A greater (75%) percentage recommended at least two visits to campus to meet the department chair and other members in the college. Less than 10% advised perspective students to learn the philosophy or the objectives of the university and to seek out resources for academic or personal problems. This same group said that students should become involved in campus activities (both black and white), not become overwhelmed by the small black population or the virtually nonexistence of a black community in Ames, make realistic goals, and allow oneself to be challenged
by teachers. More than (40%) indicated that they would advise prospective students to attend workshops on study skills, time management, and motivation once they arrived; to go immediately to the Office of Minority Students Affairs; and to find a black graduate student or faculty/staff member to serve as mentor or role model.

Conclusion

Implicit in the findings of this study is the conclusion that ISU in the 1990s faces a new wave of concerns for blacks and other minorities. If current deficiencies at ISU remain unchecked, the declining participation of blacks in higher education will have serious repercussions for future generations of Americans. It would be erroneous to assume that the problems identified in this study illustrate the entire range of difficulties encountered by black students on predominantly white campuses. The author feels however, that these issues constitute stumbling blocks to retention and graduation of black students.

It is the purpose of this study to "strike a nerve" and to highlight the need for change on campus. To ensure that black students receive a quality education, the institution must accept its fair share of the responsibility for motivating, supporting, and advocating. Students and personnel must share
responsibility for providing a responsive success-oriented environment so that success for black students at Iowa State University can become a reality. When Black students begin to achieve pronounced academic success, institutions and society as a whole will reap the benefits.

Recommendations for the University

Before retention programs can succeed at ISU, certain conditions must exist: institutional commitment; program leadership; program conceptualization; and faculty involvement (Brown, 1985). Specific recommendations for ISU follow:

The university must commit itself to retaining and graduating black students and should adopt a comprehensive set of support services. As a first step, Iowa State University should reaffirm its commitment to retaining and graduating black students. The campus environment must be altered to represent the multicultural, multiracial make-up of the student body. Such change will be accomplished by examination of the institutional philosophy and mission to determine whether the institution is indeed committed to increasing the number of black students on campus. These commitments must begin with the Board of Regents and work down the power structure. The affirmation should include a reexamination of the institution's
mission, and a clear statement of mission should be set forth. Adequate funding should be allocated to guarantee its success.

The institution should provide support systems to enhance black students' chances of academic success. The support system should be comprehensive and encompass financial support systems as well as academic counseling and advising, social adjustment counseling, individual and group tutorials, and support services designed to ensure retention and graduation.

Iowa State University should develop outreach programs involving students, faculty, and staff so that all will come to an improved understanding of university requirements and of social and cultural climates. Early visitations by prospective students should be a part of the programs. These visitations would allow students the opportunity to communicate with faculty, staff, and administrators and to develop a positive attitude towards faculty and staff workers on campus. Advisors and counselors working with these outreach programs should be trained to be sensitive to the needs of black students and should provide students with the knowledge about campus necessary to succeed. Outreach programs could be used to assimilate resources of the larger ethnic minority community into the educational process of the university through shared activities and experiences and through exchange of human and material resources.
A mentoring program should begin as soon as the black student is accepted at Iowa State University. The mentor should be identified as the one to contact when there are questions, and he or she should be a person with whom black students can communicate freely. The director of the mentoring program should match black students with faculty, staff, and/or graduate students who have similar interests. The mentor should expose students to cultural events on campus and in the community and should help students adjust to the academic environment. He or she should be friend and support person to the student.

The minute number of faculty and staff serving as role models and mentors is a major barrier for blacks on at ISU. Young people learn best with the assistance and encouragement of skilled adults. Black students, too, need role models and mentors for the development of self-esteem and identity (Cole, 1986). An effective mentor provides daily nurturing and information useful in building towards the degree. Many young blacks who have entered the ranks of dropouts or failures might otherwise be successful, productive individuals if they had only been given the opportunity to be mentored, to receive academic assistance, and to take part in social interaction.

Iowa State University should make a commitment to hiring more black professionals by placing the office of Affirmative Action at the vice president level. Black faculty and staff will be instrumental in providing diversity to the complexion of
the campus, serve as role models for black students, and foster multicultural sensitivity in campus curricula and activities. The ability to understand, appreciate, and encourage diversity among students depends in part upon the knowledge gained of minority cultures, histories, values, and belief. There is a cadre of bright black college students escaping each year through the academic pipeline. Although these may not be "cream of the crop," neither are many of the white graduates hired each year by predominantly white institutions. There must be strong institutional commitment to "growing its own" black faculty and staff. By the same token, Iowa State University must take the initiative to increase the number of minority administrators through talent searches, training and skill development, and networking opportunities. But this is still not enough. Campus leaders must actively adopt an institutional philosophy and a practical plan for developing new leadership positions blacks and other minorities. Financial incentives should also be offered university wide, especially in job categories in which there is an underrepresentation of blacks.

Inasmuch as the Office of Minority Student Affairs is of great importance to black and other minority students, sizeable funds should be dedicated to that office each year. Although the office is not able to address all needs of black students, it is the functional unit on campus that can develop, coordinate, and implement support services for them. Funds
should therefore be allocated generously to ensure that the office meet the needs of as many students as possible. The office should report directly to the president because many issues regarding black and other minority students are too multifaceted to be filtered through the administrative hierarchy. The Office of Minority Student Affairs should have sufficient authority, staff and financial resources to coordinate efforts to strengthen student achievement, minority employment opportunities, and race relations on the campus and throughout the community.

These recommendations provide a platform from which to address the campus environment's need for pluralism. They are far from complete or perfect. Nevertheless, acceptance and commitment of at least some are urged: fostering endless dialogue to weaken at the expense of action allows the environment to deteriorate at a time when the black student population greatly needs to feel administrative support.
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ACKNOWLEDGEMENTS

Thank God for His inspiration and guidance in my life and this project. I extend sincere thanks to my major professor, Dr. Daniel Robinson who shared a wealth of knowledge with me. I also extend gratitude to Dr. Larry Ebbers, Dr. James Thomas Emmerson, Dr. George Kizer and Dr. Charles Knicker for serving on the committee and contributing their knowledge to the project. I profoundly appreciate Dr. George Jackson for his insight and knowledge regarding black students on predominantly white campuses. Sincere thanks Dean Nelson in the Office of Registrar for his invaluable assistance and patience during the collection of data.

I extend enormous gratitude to my husband Dr. Charles W. Walker, who has been there every step of the way. I could not have completed this project without his love, support and understanding. Deep love and appreciation to my family for their unending love, belief, and support of all that I endeavored. I wish to thank Dennis Ross for his continual support and invaluable friendship, which I will always cherish. Thank you for believing in me when I did not believe in myself. I am deeply indebted to the Myers family. Their concern and dedication made all the difference in the world. Finally, I thank Dava and Pauline James for their moral support.
APPENDIX A.
STUDY ON STUDENT ENROLLMENT PATTERNS AND PERSISTENCE
IOWA STATE UNIVERSITY
FIVE YEAR ATTRITION, PERSISTENCE AND GRADUATION RATES
FALL 1984 ENTERING FRESHMEN

STILL ENROLLED 5 YRS (10.3%) (409)
1ST YEAR ATTRITION (19.3%) (767)

5 YEAR GRADUATES (30.7%) (1221)
2ND YEAR ATTRITION (10.4%) (413)

3RD YEAR ATTRITION (3.1%) (122)
4TH YEAR ATTRITION (1.6%) (65)

5TH YEAR ATTRITION (0.8%) (32)
4 YEAR GRADUATES (23.9%) (949)

Total Entering Freshmen = 3977
Total Graduates = 2170 (54.6%)
Total Attrition = 1399 (35.2%)

GRAPH 1
IOWA STATE UNIVERSITY
ONE, TWO AND THREE YEAR PERSISTENCE RATES
FALL SEMESTER 1984 TO 1988 ENTERING FRESHMEN

N = 3,977    N = 3,979    N = 3,840    N = 3,537    N = 3,609

Graph 2
FOUR-YEAR GRADS
FIVE-YEAR GRADS
STILL ENROLLED
AFTER 5 YEARS
ATTRITION

Enrolling Freshmen
Total* 3977
Black*  125
Asian*  69
Hispanic*  26
American Indian***  1

*American Indian
Excluded due to
Low Numbers.

**Includes Ethnic
Minorities and
Non-Citizen
Freshmen.

GRAPH 3
IOWA STATE UNIVERSITY
ONE YEAR PERSISTENCE RATES BY ETHNIC GROUP *
FALL SEMESTER 1985 TO 1988 ENTERING FRESHMEN **

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<td>1988</td>
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Graph 4
IOWA STATE UNIVERSITY
TWO YEAR PERSISTENCE RATES BY ETHNIC GROUP *
FALL SEMESTER 1984 TO 1987 ENTERING FRESHMEN

1984 ENTRY
1985 ENTRY
1986 ENTRY
1987 ENTRY

**American Indian
Excluded Due to
Low Numbers

** Includes Ethnic
Minority and
Non-Citizen Freshmen

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GRAPH 5
IDOWA STATE UNIVERSITY
THREE YEAR PERSISTENCE RATES BY ETHNIC GROUP
FALL SEMESTER 1984 TO 1986 ENTERING FRESHMEN

1984 ENTRY
1985 ENTRY
1986 ENTRY

TOTAL FRESHMEN**
BLACK FRESHMEN
ASIAN FRESHMEN
HISPANIC FRESHMEN

GRAPH 6
IOWA STATE UNIVERSITY
FIVE YEAR ATTRITION, PERSISTENCE AND GRADUATION RATES
FALL 1984 ENTERING FRESHMEN BY CITIZENSHIP GROUP

FOUR-YEAR GRADS  FIVE-YEAR GRADS  STILL ENROLLED  AFTER 5 YEARS  ATTRITION

Entering Freshmen
Total = 3,977
Foreign = 47
Immigrant = 24

* Includes Ethnic Minority and Non-Citizen Freshmen

TOTAL FRESHMEN
TOTAL FRESHMEN
FOREIGN FRESHMEN
IMMIGRANT VISA FRESHMEN

GRAPH 7
IOWA STATE UNIVERSITY
ONE YEAR PERSISTENCE RATES BY CITIZENSHIP GROUP
FALL SEMESTER 1985 TO 1988 ENTERING FRESHMEN *


* One Year Persistence Rates for 1984 Entry Groups are Not Available.
** Includes Ethnic Minority and Non-Citizen Freshmen

GRAPH 8
IOWA STATE UNIVERSITY
TWO YEAR PERSISTENCE RATES BY CITIZENSHIP GROUP
FALL SEMESTER 1984 TO 1987 ENTERING FRESHMEN

GRAPH 9

* Includes Ethnic Minority and Non-Citizen Freshmen
IOWA STATE UNIVERSITY
THREE YEAR PERSISTENCE RATES BY CITIZENSHIP GROUP
FALL SEMESTER 1984 TO 1986 ENTERING FRESHMEN

1984 ENTRY

1985 ENTRY

1986 ENTRY

* Includes Ethnic Minority and Non-Citizen Freshmen

TOTAL FRESHMEN

FOREIGN FRESHMEN

IMMIGRANT VISA FRESHMEN

PERCENT STILL ENROLLED AFTER 3 YEARS

GRAPH 10
APPENDIX B.
COVER LETTER AND QUESTIONNAIRE FOR STUDENTS WHO GRADUATED
December 12, 1991

Dear Former ISU Student:

My name is Elaine Patterson-Walker and I’m a Black doctoral candidate at Iowa State University. As part of my doctoral requirements, I’m doing a study on Black student retention and graduation at Iowa State University. I obtained a list of students who entered the university in 1984 and your name was selected from that list to be interviewed.

This study is an effort to obtain information about your experiences at Iowa State University. You will be asked questions about your campus experiences, your relationship with faculty, staff and students, your opinion of campus services, and your personal background. The results of this questionnaire will help educational leaders at Iowa State University provide better educational opportunities for Black students.

This study is the first of its kind at Iowa State University. In order for it to be a success, I need to interview you via telephone on _______ at ______. For your convenience, I have enclosed a copy of the questions that you will asked during the interview. The entire interview will take about 20 minutes. Please be prepared to answer these questions as candidly as possible. Your name will never be identified with the project; all information will be held in strictest confidence.

Your participation in this study is voluntary. You may refuse to answer any questions that are asked and you may withdraw from participation in the study at any time without prejudice to you. Your consent to participate in the study will be implied by your participation in the interview. In providing your consent, you are consenting to allowing the use of your precollegiate academic data. This precollegiate data will include residency information, SAT and ACT scores, class size, class rank and high school grade point average.

If you have questions regarding this study, or would like to be interviewed at a different time than specified, do not hesitate to give me a call.

Thank you in advance for helping to make this study a success.

Sincerely,

Elaine Patterson-Walker
QUESTIONNAIRE
BLACK STUDENT RETENTION STUDY
FOR
STUDENTS WHO GRADUATED

SSN: __________ - _______ - __________

NAME: ____________________________________________
(Last) (First) (Middle/Maiden)

Telephone Number: ________________________________
___________________________

Dates Called: __________
______________
______________

Interviewer: ______________________________________

NOTES:
Hello. My name is Elaine Patterson-Walker and I'm a black doctoral candidate at Iowa State University. As part of my doctoral requirements, I'm conducting research on black student retention and graduation at Iowa State University.

You did attend Iowa State University, didn't you?

Good. I obtained a list of students who entered the university in 1984. Your name was selected from that list to be interviewed.

I'd like to ask you some questions about your experience at Iowa State University that will help Iowa State and other universities provide better educational opportunities for Black students. This survey should take no more than 20 minutes. This may sound like a long time, but it goes rather quickly and I think you'll find it interesting.

(Call by name) __________________________, you can imagine the importance of this information, and I would really value your input. This study is the first of its kind undertaken at Iowa State University. For it to be a success, I need your help in completing the survey. The results of this telephone survey will be reviewed by the educational leaders at Iowa State University. Your name will never be identified with the project; all information will be held in strictest confidence.

Given the importance of this study, I'm sure that you want to help us out. Right?________

(If NO) If now is not a good time, when would be a good time to call back?________________

(If YES) Good!

I'm going to ask you questions about your campus experience, how you got along with faculty and other students, what you thought of campus services, and something about your own personal background.

I would like you to answer these questions as candidly as possible. Remember, your answers will be kept in the strictest confidence.
SURVEY #________

FIRST I'M GOING TO ASK YOU ABOUT YOUR CAMPUS EXPERIENCE AT IOWA STATE UNIVERSITY

1. For what reason(s) did you decide to attend Iowa State University?
   
   _____ Academic reputation
   _____ Had the major I wanted
   _____ Family encouraged
   _____ Friends encouraged
   _____ High school teacher encouraged
   _____ Location
   _____ Financial Aid
   _____ Scholarship
   _____ Athletic Scholarship
   _____ Wanted an integrated setting
   _____ University sponsored workshops
   _____ Other (identify) __________________________

1b. Of the reasons you stated, which two were the most important?
   (interviewer, underscore the two reasons.)

   1. __________
   2. __________

2. Did you change your major while at Iowa State?
   ___ Yes ___ No

   a. If YES, how many times? ______

3. As a freshman did you live on campus?
   ___ Yes ___ No

4. As a freshman was your roommate black?
   ___ Yes ___ No

5. Did you request a black roommate?
   ___ Yes ___ No

6. Did you live in the residence hall for most of your college years?
   ___ Yes ___ No

   a. If YES, were there more than 20 black students in your residence hall?
      ___ Yes ___ No

   b. If NO, did you live with parents or relatives?
      ___ Yes ___ No

7. Did you ever have a black roommate during your time at Iowa State University?
   ___ Yes ___ No
8. In your opinion, were there a sufficient number of Black students on campus to provide a satisfactory social life? Yes No

9. Did you socialize with Black students most of the time? Yes No

10. Did you participate in? (Mark Y for Yes and N for No.)
   ___ Black Student Government
   ___ Black Greek Association
   ___ Black Cultural Center Worship Service
   ___ Gospel Soul Innovators
   ___ Voice Unlimited
   ___ Iowa State University Society of Black Engineers
   ___ Black History Month Events

11. About how many campus organizations were you active in during your last year as a student at Iowa State University?

12. About how many extracurricular activities sponsored by Black student organizations did you participate in during your last year at Iowa State University?

13. Did you ever run for office in campus organizations? Yes No
   a. If YES, how many?
   b. How many of these organizations were made up primarily of Black students?

14. Did you ever hold leadership positions in campus organizations? Yes No
   a. If YES, how many?
   b. How many of these organizations were made up primarily of Black students?
8. In your opinion, were there a sufficient number of black students on campus to provide a satisfactory social life? ___Yes ___No

9. Did you socialize with black students most of the time? ___Yes ___No

10. Did you participate in?
   (Mark Y for Yes and N for No.)

   ___ Black Student Government
   ___ Black Greek Association
   ___ Black Cultural Center Worship Service
   ___ Gospel Soul Innovators
   ___ Voice Unlimited
   ___ Iowa State University Society of Black Engineers
   ___ Black History Month Events
   ___ Fraternity
   ___ Sorority

11. About how many campus organizations were you active in during your last year as a student at Iowa State University? _____

12. About how many extracurricular activities sponsored by Black student organizations did you participate in during your last year at Iowa State University? _____

13. Did you ever run for office in campus organizations? ___Yes ___No
   a. If YES, how many? _____
   b. How many of these organizations were made up primarily of black students? _____

14. Did you ever hold leadership positions in campus organizations? _____
   a. If YES, how many? _____
   b. How many of these organizations were made up of primarily black students? _____
15. Did you feel that at Iowa State there were:

...... attempts to bring you into the mainstream of student life? (Y or N)
...... Professors who made you feel good about yourself?
   (check one) ___many? ___some? ___few? ___none?
...... professors who took a real interest in you personally?
   (check one) ___many? ___some? ___few? ___none?
...... good relations between black and white students?
   (check one) ___many? ___some? ___few? ___none?

16. Were there any serious racial problems or difficulties that affected black students at Iowa State during the time you attended? (Mark Yes or No)

   ____ Feelings of alienation
   ____ Professors conveying the feeling that black students are inferior
   ____ White students conveying the feeling that black students are inferior
   ____ Professors not calling on black students
   ____ Other (identify) __________________________

17. Iowa State has a higher dropout rate for black male students than for white students. Why do you think this is so?

   ____ More family pressure
   ____ Lack of special programs
   ____ Lack of helpful black faculty/staff
   ____ Inferior quality of black student academic preparation
   ____ Lack of perseverance
   ____ Lack of black students
   ____ Lack of financial aid
   ____ Other (identify) __________________________

NOW I'M GOING TO ASK YOU THREE QUESTIONS. I WANT YOU TO ANSWER THEM ON A SCALE FROM 1 TO 10. 10 IS THE HIGHEST.

18. As a student, how did you like Iowa State? 1 2 3 4 5 6 7 8 9 10
    (none) (a lot)

19. How much racial discrimination (if any) did you feel that there was in the classroom? 1 2 3 4 5 6 7 8 9 10
    (none) (a lot)

20. How much racial discrimination (if any) did you feel that there was in social activities? 1 2 3 4 5 6 7 8 9 10
    (none) (a lot)
NOW I'M GOING TO ASK YOU SOME QUESTIONS ABOUT YOUR INTERACTIONS WITH FACULTY AND STAFF.

21. Were you ever taught by a black instructor?  ____Yes  ____No

22. Did a black faculty or staff member serve as advisor to any of the organizations to which you belonged?  ____Yes  ____No

23. Was there a black faculty or staff member to whom you could go for advice at any time?  ____Yes  ____No

24. Have you ever taken a course at Iowa State that deals with black culture?  ____Yes  ____No

25. How would you characterize your relation with:
   White faculty:  ____Excellent  ____Good  ____Fair  ____Poor  ____Very Poor
   White staff:  ____Excellent  ____Good  ____Fair  ____Poor  ____Very Poor
   White students  ____Excellent  ____Good  ____Fair  ____Poor  ____Very Poor

26. Was there one faculty member, administrator, or staff member who was most influential in your studies?  ____Yes  ____No
   a. If YES, was this person black?  ____Yes  ____No

NOW I'D LIKE TO ASK YOU SOME QUESTIONS ABOUT YOUR USE OF UNIVERSITY SUPPORT SERVICES.

27. What were the major sources of funding for your college education?
   ____Parents' earnings/savings
   ____Personal earnings/savings
   ____Spouse's earnings/savings
   ____Federal/university loans
   ____Federal/university grants
   ____Athletic scholarship
   ____Academic scholarship
   ____Veteran's benefits
   ____Other (identify) __________________________

28. Were the financial services at Iowa State adequate to meet your financial needs?  ____Yes  ____No

29. Did you make use of any tutorial services?  ____Yes  ____No
   a. Tutorial services were:  ____Free?  ____Paid?
30. Did you use the counseling services at Iowa State?  
____Yes  ____No  

a. The reason you used the counseling services was?  
____ Academic  ____Personal  ____Career  

31. Which office, program, or organization did you find most helpful in your academic and social adjustment to the university?  

NOW I'M GOING TO ASK YOU SOME QUESTIONS ABOUT YOUR FEELINGS ABOUT HOW THE UNIVERSITY AFFECTED YOU. PLEASE TELL ME WHETHER YOU AGREE OR DISAGREE WITH THESE STATEMENTS.

32. The university helped me to feel that I am a person of worth, at least on a plane with others.  
Strongly agree  Agree  Neutral  Disagree  Strongly disagree  
5 ............ 4 ............ 3 ............ 2 ............ 1  

33. The university made me feel that I am able to do things as well as most other people.  
Strongly agree  Agree  Neutral  Disagree  Strongly disagree  
5 ............ 4 ............ 3 ............ 2 ............ 1  

34. Experience that I had at the university made me feel that I am a person of value.  
Strongly agree  Agree  Neutral  Disagree  Strongly disagree  
5 ............ 4 ............ 3 ............ 2 ............ 1  

35. Experience that I had at the university helped me to develop a more positive attitude toward myself.  
Strongly agree  Agree  Neutral  Disagree  Strongly disagree  
5 ............ 4 ............ 3 ............ 2 ............ 1  

36. Negative experiences that I had at the university motivated me to try harder.  
Strongly agree  Agree  Neutral  Disagree  Strongly disagree  
5 ............ 4 ............ 3 ............ 2 ............ 1
NOW I'D LIKE TO ASK YOU SOME QUESTIONS ABOUT YOUR HIGH SCHOOL EXPERIENCE, YOUR FAMILY, AND THE PLANS AND EXPECTATIONS THAT YOU HAD FOR HIGHER EDUCATION.

37. Did you receive encouragement from a high school counselor to attend college?  
   ___Yes ___No

38. Did you participate in any Iowa State sponsored programs while you were a high school student?  
   ___Yes ___No

39. Did your parents back you in your college plans?  
   ___Yes ___No

40. Until you turned 18, had you spent most of your life in the midwestern part of the country?  
   ___Yes ___No

41. What was the highest number of years of education completed by your father? ___mother? ___
   step-father ___ step-mother ___
   guardian(male) ___ guardian(female)  
   (if 11 yrs., ask if received high school diploma___)

42. Are you an only child?  
   ___Yes ___No

43. a. If NO, how many children are in your family?___
   b. What is your birth position in the family?
     1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

44. Were you the first of your brothers and sisters to go to college?  
   ___Yes ___No

45. About what percentage of the students in your high school were black? ___0-24%; ___25-49%; ___50-74%; ___75% or more

46. In terms of racial make-up, how would you characterize your neighborhood during your high school years?
   ___All black ___Predominantly black
   ___Predominantly white ___50/50
   Other(Specify)__________________________

47. What kind of location did you grow up in?
   ___Rural ___Small city ___Suburban ___Urban
48. What were your parents' occupations while you were at Iowa State?

Father ___________________ Mother ___________________
Step-Father _______________ Step-Mother _______________
Guardian(Male) ____________ Guardian(Female) ____________

49. Did you attend graduate school? __________ Yes __________ No

   a. If yes, where did you attend graduate school? ______________________

   b. If no, do you plan to attend graduate school in the future? __________

Now we've reached the last section and I'd like to ask you some questions about race and race relationships.

50. People use different words to refer to people of our race. How do you identify yourself?

   (Interviewer, do not read this list of choices; allow respondent to answer without prompting.)

   _____ Negro
   _____ Afro-American
   _____ African American
   _____ Colored
   _____ Black
   _____ Black American

51. How much power or influence do you think black people have in American life and politics? Would you say they had:

   _____ a great deal of power
   _____ a lot
   _____ only a little
   _____ none at all
   _____ don't know

For the remainder of the questions, please tell me whether you agree or disagree with these statements.

52. I am sometimes limited by false assumptions or expectations that others hold about me because of my race.

   Strongly agree Agree Neutral Disagree Strongly disagree
   5.............4........3........2...........1
53. In college, I socialized with my race by sitting in the section of the cafeteria, football stadium, or basketball gym, that was all black.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree
5.............4.............3.............2..................1

54. All Black will face discrimination that can't be solved by individual effort alone.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree
5.............4.............3.............2..................1

55. In order to overcome discrimination, individual blacks must be better trained and better qualified than their white counterparts.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree
5.............4.............3.............2..................1

56. If a black only tries hard enough, he can get ahead despite opposition from whites.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree
5.............4.............3.............2..................1

57. Blacks have the same opportunities as whites.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree
5.............4.............3.............2..................1

58. Many blacks have not prepared themselves to make use of the opportunities that come their way.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree
5.............4.............3.............2..................1

59. Black students have greater opportunities than they did a decade ago.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree
5.............4.............3.............2..................1
RECOMMENDATIONS FOR CHANGE

60. How can faculty, staff or others advising black students best help?

61. What advice would you give to black students considering attending ISU?

62. What would you suggest for bringing about changes at Iowa State University?
Other comments:

THANK YOU FOR YOUR COOPERATION
APPENDIX C.
COVER LETTER AND QUESTIONNAIRE FOR STUDENTS WHO WITHDREW
December 12, 1991

Dear Former ISU Student:

My name is Elaine Patterson-Walker and I'm a Black doctoral candidate at Iowa State University. As part of my doctoral requirements, I'm doing a study on Black student retention and graduation at Iowa State University. I obtained a list of students who entered the university in 1984 and your name was selected from that list to be interviewed.

This study is an effort to obtain information about your experiences at Iowa State University. You will be asked questions about your campus experiences, your relationship with faculty, staff and students, your opinion of campus services, and your personal background. The results of this questionnaire will help educational leaders at Iowa State University provide better educational opportunities for Black students.

This study is the first of its kind at Iowa State University. In order for it to be a success, I need to interview you via telephone on _________ at ______ for your convenience, I have enclosed a copy of the questions that you will be asked during the interview. The entire interview will take about 20 minutes. Please be prepared to answer these questions as candidly as possible. Your name will never be identified with the project; all information will be held in strictest confidence.

Your participation in this study is voluntary. You may refuse to answer any questions that are asked and you may withdraw from participation in the study at any time without prejudice to you. Your consent to participate in the study will be implied by your participation in the interview. In providing your consent, you are consenting to allowing the use of your precollege academic data. This precollege data will include residency information, SAT and ACT scores, class size, class rank and high school grade point average.

If you have questions regarding this study, or would like to be interviewed at a different time than specified, do not hesitate to give me a call.

Thank you in advance for helping to make this study a success.

Sincerely,

Elaine Patterson-Walker
QUESTIONNAIRE
BLACK STUDENT RETENTION STUDY
FOR
STUDENTS WHO WITHDREW

SSN: __________ - _______ - __________

NAME: ____________________________________________

  (Last)  (First)  (Middle/Maiden)

Telephone Number: __________________________________

Dates Called: _______________________________________

Interviewer: _______________________________________

NOTES:
Hello. My name is Elaine Patterson-Walker and I'm a black doctoral candidate at Iowa State University. As part of my doctoral requirements, I'm conducting research on black student retention and graduation at Iowa State University.

You did attend Iowa State University, didn't you?

Good. I obtained a list of students who entered the university in 1984. Your name was selected from that list to be interviewed.

I'd like to ask you some questions about your experience at Iowa State University that will help Iowa State and other universities provide better educational opportunities for Black students. This survey should take no more than 20 minutes. This may sound like a long time, but it goes rather quickly and I think you'll find it interesting.

(Call by name) ____________________, you can imagine the importance of this information, and I would really value your input. This study is the first of its kind undertaken at Iowa State University. For it to be a success, I need your help in completing the survey. The results of this telephone survey will be reviewed by the educational leaders at Iowa State University. Your name will never be identified with the project; all information will be held in strictest confidence.

Given the importance of this study, I'm sure that you want to help us out. Right?

(If NO) If now is not a good time, when would be a good time to call back? __________________

(If YES) Good!

I'm going to ask you questions about your campus experience, how you got along with faculty and other students, what you thought of campus services, and something about your own personal background.

I would like you to answer these questions as candidly as possible. Remember, your answers will be kept in the strictest confidence.
SURVEY #

FIRST I'M GOING TO ASK YOU ABOUT YOUR CAMPUS EXPERIENCE AT IOWA STATE UNIVERSITY

1. For what reason(s) did you decide to attend Iowa State University?

   _____ Academic reputation
   _____ Had the major I wanted
   _____ Family encouraged
   _____ Friends encouraged
   _____ High school teacher encouraged
   _____ Location
   _____ Financial Aid
   _____ Scholarship
   _____ Athletic Scholarship
   _____ Wanted an integrated setting
   _____ University sponsored workshops
   _____ Other (identify) __________________________

1b. Of the reasons you stated, which two were the most important?
   (interviewer, underscore the two reasons.)

   1.
   2.

2. Did you change your major while at Iowa State?

   _____ Yes _____ No

   a. If YES, how many times? ______

3. As a freshman did you live on campus?

   _____ Yes _____ No

4. As a freshman was your roommate black?

   _____ Yes _____ No

5. Did you request a black roommate?

   _____ Yes _____ No

6. Did you live in the residence hall for most of your college years?

   _____ Yes _____ No

   a. If YES, were there more than 20 black students in your residence hall?

   _____ Yes _____ No

   b. If NO, did you live with parents or relatives?

   _____ Yes _____ No

7. Did you ever have a black roommate during your time at Iowa State University?

   _____ Yes _____ No
8. In your opinion, were there a sufficient number of black students on campus to provide a satisfactory social life?  
   ___Yes ___No

9. Did you socialize with black students most of the time?  
   ___Yes ___No

10. Did you participate in?  
    (Mark Y for Yes and N for No.)

   ___ Black Student Government  ___ Fraternity
   ___ Black Greek Association  ___ Sorority
   ___ Black Cultural Center Worship Service
   ___ Gospel Soul Innovators
   ___ Voice Unlimited
   ___ Iowa State University Society of Black Engineers
   ___ Black History Month Events

11. About how many campus organizations were you active in during your last year as a student at Iowa State University? _______

12. About how many extracurricular activities sponsored by Black student organizations did you participate in during your last year at Iowa State University? _______

13. Did you ever run for office in campus organizations?  
    ___Yes ___No

   a. If YES, how many? _______

   b. How many of these organizations were made up primarily of black students? _______

14. Did you ever hold leadership positions in campus organizations? _______

   a. If YES, how many? _______

   b. How many of these organizations were made up of primarily black students? _______
15. Did you feel that at Iowa State there were:

- attempts to bring you into the mainstream of student life? (Y or N)
- Professors who made you feel good about yourself? (check one) many? some? few? none?
- Professors who took a real interest in you personally? (check one) many? some? few? none?
- good relations between black and white students? (check one) many? some? few? none?

16. Were there any serious racial problems or difficulties that affected black students at Iowa State during the time you attended? (Mark Yes or No)

- Feelings of alienation
- Professors conveying the feeling that black students are inferior
- White students conveying the feeling that black students are inferior
- Professors not calling on black students
- Other (identify)

17. Iowa State has a higher dropout rate for black male students than for white students. Why do you think this is so?

- More family pressure
- Lack of special programs
- Lack of helpful black faculty/staff
- Inferior quality of black student academic preparation
- Lack of perseverance
- Lack of black students
- Lack of financial aid
- Other (identify)

Now I'm going to ask you three questions. I want you answer them on a scale from 1 to 10. 10 is the highest.

18. As a student, how did you like Iowa State?

   1 2 3 4 5 6 7 8 9 10
   (none) (a lot)

19. How much racial discrimination (if any) did you feel that there was in the classroom?

   1 2 3 4 5 6 7 8 9 10
   (none) (a lot)

20. How much racial discrimination (if any) did you feel that there was in social activities?

   1 2 3 4 5 6 7 8 9 10
   (none) (a lot)
NOW I'M GOING TO ASK YOU SOME QUESTIONS ABOUT YOUR INTERACTIONS WITH FACULTY AND STAFF

21. Were you ever taught by a black instructor? ____Yes ____No

22. Did a black faculty or staff member serve as advisor to any of the organizations to which you belonged? ____Yes ____No

23. Was there a black faculty or staff member to whom you could go for advice at any time? ____Yes ____No

24. Have you ever taken a course at Iowa State that deals with black culture? ____Yes ____No

25. How would you characterize your relation with:
   White faculty: ______Excellent ______Good ______Fair ______Poor ______Very Poor
   White staff: ______Excellent ______Good ______Fair ______Poor ______Very Poor
   White students ______Excellent ______Good ______Fair ______Poor ______Very Poor

26. Was there one faculty member, administrator, or staff member who was most influential in your studies? ____Yes ____No
   a. If YES, was this person black? ____Yes ____No

NOW I'D LIKE TO ASK YOU SOME QUESTIONS ABOUT YOUR USE OF UNIVERSITY SUPPORT SERVICES.

27. What were the major sources of funding for your college education?
   ____Parents' earnings/savings
   ____Personal earnings/savings
   ____Spouse's earnings/savings
   ____Federal/university loans
   ____Federal/university grants
   ____Athletic scholarship
   ____Academic scholarship
   ____Veteran's benefits
   ____Other (identify) ___________________________

28. Were the financial services at Iowa State adequate to meet your financial needs? ____Yes ____No

29. Did you make use of any tutorial services? ____Yes ____No
   a. Tutorial services were: ____Free? ____Paid?
30. Did you use the counseling services at Iowa State? __Yes ___No
   a. The reason you used the counseling services was?
      _____ Academic _____ Personal _____ Career

31. Which office, program, or organization did you find most helpful in your academic and social adjustment to the university?_________________

NOW I'M GOING TO ASK YOU SOME QUESTIONS ABOUT YOUR FEELINGS ABOUT HOW THE UNIVERSITY AFFECTED YOU. PLEASE TELL ME WHETHER YOU AGREE OR DISAGREE WITH THESE STATEMENTS.

32. The university helped me to feel that I am a person of worth, at least on a plane with others.
   Strongly agree Agree Neutral Disagree Strongly disagree
   5.............4...........3............2...............1

33. The university made me feel that I am able to do things as well as most other people.
   Strongly agree Agree Neutral Disagree Strongly disagree
   5.............4...........3............2...............1

34. Experience that I had at the university made me feel that I am a person of value.
   Strongly agree Agree Neutral Disagree Strongly disagree
   5.............4...........3............2...............1

35. Experience that I had at the university helped me to develop a more positive attitude toward myself.
   Strongly agree Agree Neutral Disagree Strongly disagree
   5.............4...........3............2...............1

36. Negative experiences that I had at the university motivated me to try harder.
   Strongly agree Agree Neutral Disagree Strongly disagree
   5.............4...........3............2...............1
NOW I'D LIKE TO ASK YOU SOME QUESTIONS ABOUT YOUR HIGH SCHOOL EXPERIENCE, YOUR FAMILY, AND THE PLANS AND EXPECTATIONS THAT YOU HAD FOR HIGHER EDUCATION.

37. Did you receive encouragement from a high school counselor to attend college? _____Yes _____No

38. Did you participate in any Iowa State sponsored programs while you were a high school student? _____Yes _____No

39. Did your parents back you in your college plans? _____Yes _____No

40. Until you turned 18, had you spent most of your life in the midwestern part of the country? _____Yes _____No

41. What was the highest number of years of education completed by your father? _____ mother? _____
   step-father _____ step-mother _____
   guardian(male) _____ guardian(female)

   (if 11 yrs., ask if received high school diploma_______)

42. Are you an only child? _____Yes _____No

43. a. If NO, how many children are in your family?_______
   b. What is your birth position in the family?
   1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

44. Were you the first of your brothers and sisters to go to college? _____Yes _____No

45. About what percentage of the students in your high school were black? _____ 0-24%; _____ 25-49%; _____ 50-74%; _____ 75% or more

46. In terms of racial make-up, how would you characterize your neighborhood during your high school years?
   ____All black ____Predominantly black
   ____Predominantly white ____50/50
   Other(Specify)____________________

47. What kind of location did you grow up in?
   ____ Rural ____ Small city ____ Suburban ____ Urban
48. What were your parents' occupations while you were at Iowa State?

Father________________________ Mother________________________
Step-Father____________________ Step-Mother____________________
Guardian(Male)_________________ Guardian(Female)_____________

49. Did you transfer to another college/university after leaving ISU? ____Yes ____No

a. If yes, did you graduate?

b. What factors helped you succeed at the new college/university?

NOW WE'VE REACHED THE LAST SECTION AND I'D LIKE TO ASK YOU SOME QUESTIONS ABOUT RACE AND RACE RELATIONSHIPS.

50. People use different words to refer to people of our race. How do you identify yourself?

(Interviewer, do not read this list of choices; allow respondent to answer without prompting.)

_____ Negro
_____ Afro-American
_____ African American
_____ Colored
_____ Black
_____ Black American

51. How much power or influence do you think black people have in American life and politics? Would you say they had:

_____ a great deal of power
_____ a lot
_____ only a little
_____ none at all
_____ don't know

FOR THE REMAINDER OF THE QUESTIONS, PLEASE TELL ME WHETHER YOU AGREE OR DISAGREE WITH THESE STATEMENTS.

52. I am sometimes limited by false assumptions or expectations that others hold about me because of my race.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree
5................4...........3...........2..................1
53. In college, I socialized with my race by sitting in the section of the cafeteria, football stadium, or basketball gym, that was all black.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
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54. All black will face discrimination that can't be solved by individual effort alone.

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<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
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</table>

55. In order to overcome discrimination, individual blacks must be better trained and better qualified than their white counterparts.

<table>
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<tr>
<th>Strongly agree</th>
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<th>Disagree</th>
<th>Strongly disagree</th>
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56. If a black only tries hard enough, he can get ahead despite opposition from whites.

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<tr>
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<th>Disagree</th>
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57. Blacks have the same opportunities as whites.

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<tr>
<th>Strongly agree</th>
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<th>Disagree</th>
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</table>

58. Many blacks have not prepared themselves to make use of the opportunities that come their way.

<table>
<thead>
<tr>
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59. Black students have greater opportunities than they did a decade ago.

<table>
<thead>
<tr>
<th>Strongly agree</th>
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<th>Disagree</th>
<th>Strongly disagree</th>
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</table>
RECOMMENDATIONS FOR CHANGE

60. How can faculty, staff or others advising black students best help?

61. What advice would you give to black students considering attending ISU?

62. What would you suggest for bringing about changes at Iowa State University?
Other comments:

THANK YOU FOR YOUR COOPERATION
APPENDIX D.
HUMAN SUBJECTS APPROVAL
Information for Review of Research Involving Human Subjects
Iowa State University
(Please type and use the attached instructions for completing this form)

1. Title of Project: Factors that Contribute to Black Students Retention and Graduation at Iowa State University.

2. I agree to provide the proper surveillance of this project to insure that the rights and welfare of the human subjects are protected. I will report any adverse reactions to the committee. Additions to or changes in research procedures after the project has been approved will be submitted to the committee for review. I agree to request renewal of approval for any project continuing more than one year.

Elaine Patterson-Walker
Typed Name of Principal Investigator
12/1/91
Date
Elaine P. Walker
Signature of Principal Investigator

Professional Studies
Department
N006 Lagomarcino Hall
Campus Address
294-3681
Campus Telephone

3. Signatures of other investigators

Daniel C. Reil
Date
12/1/91
Relationship to Principal Investigator
Major Professor

4. Principal Investigator(s) (check all that apply)
□ Faculty □ Staff □ Graduate Student □ Undergraduate Student

5. Project (check all that apply)
□ Research □ Thesis or dissertation □ Class project □ Independent Study (490, 590, Honors project)

6. Number of subjects (complete all that apply)
XX # Adults, non-students
___ # ISU student
# minors under 14
# minors 14 - 17
ZZ other (explain) Former ISU Students

7. Brief description of proposed research involving human subjects: (See instructions, Item 7. Use an additional page if needed.)

see attachment

(Please do not send research, thesis, or dissertation proposals.)

8. Informed Consent:
□ Signed informed consent will be obtained. (Attach a copy of your form.)
XX Modified informed consent will be obtained. (See instructions, item 8.)
□ Not applicable to this project.
9. Confidentiality of Data: Describe below the methods to be used to ensure the confidentiality of data obtained. (See instructions, item 9.)

Subjects' names will not be written on the questionnaire, and no individual will be identified in any way. Personal identifiers (i.e., code numbers and social security numbers) will be obtained on a separate detachable sheet. Once all the data is collected, identifier sheets will be destroyed. Only the chief investigator will be involved in the data collection and will be responsible for maintaining subjects' confidentiality.

10. What risks or discomfort will be part of the study? Will subjects in the research be placed at risk or incur discomfort? Describe any risks to the subjects and precautions that will be taken to minimize them. (The concept of risk goes beyond physical risk and includes risks to subjects' dignity and self-respect as well as psychological or emotional risk. See instructions, item 10.)

There will be no visible risk factors involved. The only threat to subjects will be when pre-collegiate data (high school rank, ACT and SAT test scores) are identified. To guard against these risks, subjects will be given a written statement identifying the nature of this study. Subjects can withdraw at any time without prejudice. No subject will be directly identified through the findings; findings will be presented as group norms.

11. CHECK ALL of the following that apply to your research: presented as group norms.

- A. Medical clearance necessary before subjects can participate
- B. Samples (Blood, tissue, etc.) from subjects
- C. Administration of substances (foods, drugs, etc.) to subjects
- D. Physical exercise or conditioning for subjects
- E. Deception of subjects
- F. Subjects under 14 years of age and/or Subjects 14 - 17 years of age
- G. Subjects in institutions (nursing homes, prisons, etc.)
- H. Research must be approved by another institution or agency (Attach letters of approval)

If you checked any of the items in 11, please complete the following in the space below (include any attachments):

Items A - D Describe the procedures and note the safety precautions being taken.

Item E Describe how subjects will be deceived; justify the deception; indicate the debriefing procedure, including the timing and information to be presented to subjects.

Item F For subjects under the age of 14, indicate how informed consent from parents or legally authorized representatives as well as from subjects will be obtained.

Items G & H Specify the agency or institution that must approve the project. If subjects in any outside agency or institution are involved, approval must be obtained prior to beginning the research, and the letter of approval should be filed.
Checklist for Attachments and Time Schedule

The following are attached (please check):

12. [X] Letter or written statement to subjects indicating clearly:
   a) purpose of the research
   b) the use of any identifier codes (names, #s), how they will be used, and when they will be removed (see Item 17)
   c) an estimate of time needed for participation in the research and the place
   d) if applicable, location of the research activity
   e) how you will ensure confidentiality
   f) in a longitudinal study, note when and how you will contact subjects later
   g) participation is voluntary; nonparticipation will not affect evaluations of the subject

13. [X] Consent form (if applicable)

14. [ ] Letter of approval for research from cooperating organizations or institutions (if applicable)

15. [X] Data-gathering instruments

16. Anticipated dates for contact with subjects:
   First Contact
   [12/12/91]
   Last Contact
   [1/31/92]

17. If applicable: anticipated date that identifiers will be removed from completed survey instruments and/or audio or visual tapes will be erased:
   [2/29/92]

18. Signature of Departmental Executive Officer
   [Larry Keith]
   Date
   [12/5/91]
   Department or Administrative Unit
   [Professional Studies]

19. Decision of the University Human Subjects Review Committee:
   [ ] Project Approved
   [ ] Project Not Approved
   [ ] No Action Required

   Patricia M. Keith
   Name of Committee Chairperson
   Date
   Signature of Committee Chairperson

GC: 1/90