To the Graduate Council:

I am submitting herewith a dissertation written by Julie Elizabeth Williams entitled "Psychological Factors Associated with Minority and Majority Student Status in University Settings." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Psychology.

Kenneth R. Newton, Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:

Vice Provost
and Dean of the Graduate School

# PSYCHOLOGICAL FACTORS ASSOCIATED WITH MINORITY AND MAJORITY STUDENT STATUS IN UNIVERSITY SETTINGS

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Julie Elizabeth Williams

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This dissertation is lovingly dedicated to
my grandfather, Philip Jerome Smith, who
always expressed such pride and joy in
the accomplishments of his
children and grandchildren

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## ABSTRACT

The primary purpose of this study was to evaluate whether minority students, regardless of race, experienced more common emotional stressors, and had more similar behavior and attitudes toward integration than their racial counterparts enrolled in institutions where they were in the racial majority. This goal was accomplished by studying 289 subjects from the following student groups: black minority students (48), white minority students (65), black majority students (90), white majority students (86). Minority status was assigned to black and white students who attended a university where students of a different race from their own were predominant; majority status was assigned to black and white students enrolled in universities where their own race was predominant. The variables of interest in this study were depression, alienation, social isolation, attitudes toward integration and behavioral interaction with students of a different race. In addition, the length of time spent in the university was hypothesized to have an effect on these variables.

The results of this study showed that the minority and majority black student groups were more similar to each other than they were to their white minority and majority counterparts. That is, black students in one setting (regardless of minority or majority status) were more like black students in another setting and white students in one setting (regardless of minority or majority status) were more like white students in another setting. In contrast to the

hypothesized relationships between variables, black students regardless of their minority/majority status, also seemed more adept at coping with their university environments (e.g. they felt less isolated and alienated) and had more positive racial attitudes than did white students. In addition, the results for white minority students looked very similar to the results reported for black minority students in previous research undertaken during the 1960's and 1970's. These findings suggest the need for further research on the psychological impact of minority status on blacks and white to provide psychologists, educators and other social scientists with valuable information which can help insure that all students have greater opportunities for achieving academic and social success in college.

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# CHAPTER I

# INTRODUCTION

## Overview

Desegregation in education, the physical mixing of students, became the "law of the land" in 1954. Integration, or the removal of psychological and other barriers formed by the prior separatism, has proceeded much more slowly. Desegregation may be assessed by counting; integration must be assessed periodically by other, more subtle means. This study analyzes some key issues of integration that may be influenced by a person's status as a member of a minority group or a majority group. Here minority refers to the relative frequency of people regardless of racial characteristics. Specifically, a small number of white pupils attending a predominantly black institution is considered here to be the minority by virtue of their numbers.

## Historical Background

One of the most important legal cases in education and social policy, Brown v. Board of Education of Topeka, Kansas (1954), was handed down by the Supreme Court to nullify the separate but equal doctrine regarding educational opportunities for students. This landmark case set a legal precedent which declared racial segregation unconstitutional. Now, many years later, the doors of educational

and career opportunity have slowly opened for black students legally allowing them access to all educational facilities. While it can be argued (Baratz & Ficklen, 1983) that whites have always had access to historically black colleges and universities, until the last decade white enrollment in these institutions has remained relatively small. In large part due to the Brown (1954) case and others that followed (Adams v. Richardson, 1970; Adams v. Califano, 1977) white students have increasingly chosen to attend historically black institutions of higher education.

For more than a decade following Brown (1954), politicians, educators and school officials (Cooper v. Aaron, 1958; Griffin v. County School Board of Prince Edward County, 1964) fought against this Supreme Court ruling. Blacks continued to be systematically excluded from predominantly white schools, while the social and political climate in the country discouraged white enrollment in predominantly black schools. Dimond (1982) stated that the problems encountered by Autherine Lucy at the University of Alabama and James Meredith at the University of Mississippi are representative of the difficulty blacks encountered when they desired to attend white institutions of higher education. Lyons' (1973) research in 20 traditionally black colleges also found that black college administrators were reluctant to have whites enroll.

Although the Brown case set a legal precedent, many judicial decisions followed which had major impacts on school desegregation policies. In 1968 the Supreme Court stepped in after more than a decade of lower-court rulings that supported a freedom of choice

model of desegregation (Dimond, 1982). The Supreme Court, in Green v. County Board of New Kent County (1968), ruled that this model merely perpetuated the dual educational system decreed unconstitutional in Brown and as such must be rejected.

Prior to 1970, most judicial action against school desegregation focused primarily on secondary schools. In 1970, however, the NAACP Legal Defense Fund filed a class action suit against the Department of Health, Education and Welfare alleging that it was not in compliance with Title VI of the 1964 Civil Rights Act (Baratz & Ficklen, 1983). As cited in Egerton (1981, p. 5), this legal mandate states:

> No person in the United States shall, on the ground of race, color or national origin be excluded from participation in or denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

This issue posed a problem which 19 states that operated dual systems of education could not afford to ignore. These states were found to be in violation of Title VI of the 1964 Civil Rights Act and subject to losing federal funds if they did not submit acceptable desegregation plans. Several important implications attended this court ruling. One of the most controversial issues questioned the impact of desegregation policies on historically black colleges and universities. For example, to be in compliance with the law and continue to receive federal financial support these schools, like their white counterparts, would have to develop plans to increase their minority (white) enrollment (Haynes, 1978). As such, many

white students, like their black colleagues, faced the challenge of being in a minority position.

A review of some of the landmark legal decisions (Geier v. Univ. of Tenn., 1979; Adams v. Richardson, 1970; Adams v. Califano, 1977) affecting higher education suggests that like black attendance in white institutions, black colleges and universities will continue to feel some judicial pressure to attract white students. Governmental policies will have an important impact on the speed with which changes occur. Some researchers (Elam, 1972; Buffkin, 1977) suggested that white students will increasingly choose to enroll in these schools for the same reasons others choose to attend them. This "reverse desegregation" (Bellamy, 1982, p. 112) will therefore provide a unique opportunity for researchers to study whites in a minority position, rather than only equating race or ethnicity with minority status.

Reverse desegregation in private black colleges may be occurring slowly. According to the United Negro College Fund Statistical Report (Payne & Kirschner, 1983), its 42 member schools enrolled only 428 white students. White student enrollment in these institutions represented only about 1% of their total student population. However, in public black colleges and universities reverse desegregation policies appear to have made a stronger impact. In contrast to the 42 member institutions of the United Negro College Fund which receive comparatively small amounts of federal support, white student enrollment in state-supported public black colleges and universities is notably higher. Statistical data reported in the Chronicle of

Higher Education (February 2, 1981, pp. 6-14) showed white enrollment as high as 15% in some historically black state-supported universities. some historically black state-supported universities.

An invaluable population for psychological researchers interested in studying behavior of adolescents and young adults is the college student. With the advent of school desegregation researchers began to investigate racial differences between black and white college students (Littig, 1968; Slaney & Brown, 1983; Picou, 1973; Weinberg, 1983). While the results of these studies have often been contradictory, one factor which usually remained consistent when racial comparisons were made was that blacks were viewed as the minority population. Such a perspective is logical given the racial composition of this country in which white students are 86% of the college population (Statistical Abstract of the United States, 1984). However, as previously stated, court-mandated desegregation in traditionally black colleges and universities has created a unique population of whites in the minority. Although some researchers (Standley, 1978; Carr, 1979; Bellamy, 1982) have studied this new minority, they also noted that the data in this area were sparse. Blacks continue to be the minority group mostly studied.

Researchers (Fleming, 1981; Hedegard & Brown, 1969; Willie & McCord, 1972) studying black students have consistently found that those enrolled in predominantly white colleges and universities experienced high rates of alienation, depression and social isolation. Venditti (1981, p. 26), a noted researcher in the area of school desegregation, described several second-generation problems related to desegregation.

> Experience, observation and reading of the literature persuade me that the typical desegregated school is a place in which integration has yet to occur, if one defines the integrated school as a place where students of different races genuinely understand and appreciate each other and benefit equally from all facets of their educational program. In contrast with this ideal, I fear that the typical desegregated school is one in which will be found obvious voluntary resegregation, marked minority group isolation and intergroup tensions, and severe circular and instructional deficiencies vis-a-vis a multicultural student body.

In her research comparing students enrolled in a historically black and historically white university, Friday (1983) reported statistically significant differences between rates and severity of depression in black and white students enrolled in a historically white university. Using the Beck Depression Inventory as a measure of depression, she found that while only 5% of her white sample was moderately depressed, 12% of the black sample was moderately depressed; 16% was severely depressed. The black students enrolled in the historically black college reported less severe depression and were proportionately smaller in number. These findings suggest that minority status in an institution may negatively affect one's psychological well-being, but since Friday (1983) did not report data on white students enrolled in the historically black college, this conclusion remains unclear.

## Statement of the Problem

A large body of research currently exists on the academic, social adjustment and attitudes of black students enrolled in historically white colleges and universities. This research has

been undertaken by numerous researchers in many different fields of study (Fleming, 1981; Allen, 1981; Thomas, 1981; Hrabowski, 1975; Rosser, 1972; Epps, 1971, 1969). Of primary concern to many of these researchers has been the impact of school desegregation on the academic and social adjustment of black students.

A common generalization held by many researchers who study black students is that they differ from white students. Typical studies in this area focus on such concepts as "racial difference" or "black-white comparisons" (Friday, 1983; Astin & Cross, 1981; Burbach & Thompson, 1971; Sorkin, 1969; Gottlieb, 1964; Gist & Bennett, 1963). In general, the findings of most of these researchers have indicated that black students enrolled in historically white institutions felt more alienated and depressed than white students and had more academic and social adjustment problems.

In contrast to the relatively large amount of research on blacks enrolled in historically white institutions, studies of white students enrolled in historically black colleges and universities are sparse and have only recently begun to appear (Baker, 1980; Standley, 1978; Elam, 1978; Burrows, 1977). Elam (1978) and Brown and Stein (1972) pointed out that while reverse desegregation (i.e. white students enrolled in historically black institutions) litigation has significantly increased the number of white students enrolled in opposite-race institutions, researchers have been slow to study the effects of minority status on whites. Smith (1980) argued that researchers virtually ignored this question until political and economic expediency forced them to examine the value of contributions made by black

institutions to the larger society. However, at present only a few researchers (Brown, 1978; Standley, 1978; Stevens, 1976; Brown & Stein, 1972) have investigated the impact that minority status has on white students in as in-depth a manner as researchers studying black students in a minority position (Friday, 1983; Berry, 1983; Fleming, 1981; Allen, 1981; Thomas, 1981; Boyd, 1974; Gibbs, 1974; Epps, 1972; Willie & McCord, 1972; Cosby, 1971). The research undertaken on white minority students is primarily descriptive and focuses on broad demographic and attitudinal characteristics of these students. In essence, these studies (Standley, 1978; Elam, 1978; Burrows, 1977; Brown & Stein, 1972) have a number of research design limitations.

This study, unlike most of the research that utilizes a racial difference theoretical paradigm to study black and white students, proposes that the minority or majority status of students within their institutions will affect a number of important psychological variables, such as the degree of emotional stress they experience, their attitudes toward integration/racial equality and their pro-integration behavior.

While it may be accurate to depict some black students attending historically white institutions as alienated, depressed and socially isolated, this study proposes that such findings are related to their minority status rather than to simply racial factors. This can be tested by assessing the effects of minority status on non-black students and by comparing minority (black and white) students to majority (black and white) students.

## Research Question and Hypotheses

This is a comparative study that hinges on the idea that both black and white minority students (i.e., those attending opposite-race institutions) experience more similar emotional stressors and share more similar attitudes and behavior toward integration with each other than with their racial counterparts enrolled in institutions where they are in the racial majority. That is, black students attending historically white institutions and white students attending historically black institutions will tend to feel more depression and alienation than their same race counterparts. These minority students will also have more positive attitudes toward integration and will interact more with students of a different race (i.e. dating, friendship, visiting own/parents' home, work) than their racial counterparts. In contrast, black students enrolled in historically black institutions will tend to be more similar to white students enrolled in historically white institutions because they both share majority status within their institutions.

In this study, the concepts of minority student and majority student are operationalized according to numerical factors, not simply racial identity. Minority students, therefore, are depicted as those enrolled in a college or university where their own race is less than 33% of the total student enrollment; majority students are those attending institutions in which their race is greater than 67% of the total enrollment.

Using the above conceptualizations of minority and majority student, both black and white students can fit into either category. Table 1 presents a conceptual classification of the four groups to be studied.

Six research hypotheses have been developed to test the primary concern of this study, that minority blacks and white are more similar to each other in their attitudes toward integration, pro-integration behavior and feelings of emotional stress (i.e., feelings of social isolation, depression and alienation) than they are to their racial majority counterparts. The research hypotheses are as follows:

Hypothesis 1: Minority students will report more feelings of depression than majority students. Symbolically, this can be expressed as follows (see Table 1):

$W_1 > W_2$ $B_2 > B_1$

Hypothesis 2a: Minority students will report more feelings of social isolation than majority students. Symbolically, this can be expressed as follows (see Table 1):

$W_1 > W_2$ $B_2 > B_1$

Hypothesis 2b: Minority students will report more feelings of alienation than majority students. Symbolically, this can be expressed as follows (see Table 1):

$W_1 > W_2$ $B_2 > B_1$

Hypothesis 3: Minority students will report more positive attitudes toward integration than majority students.

Table 1. Race and Status of Students by Type of University

| Students' Status | Type of University: Historically Black University | Type of University: Historically White University |
|---|---|---|
| Minority student | White ($W_1$) | Black ($B_2$) |
| Majority student | Black ($B_1$) | White ($W_2$) |

Symbolically, this can be expressed as follows (see Table 1):

$W_1 > W_2$ $\quad\quad$ $B_2 > B_1$

Hypothesis 4: Minority students will report more behavioral interaction with students of a race different from their own than majority students. Symbolically, this can be expressed as follows (see Table 1):

$W_1 > W_2$ $\quad\quad$ $B_2 > B_1$

Hypothesis 5: The differences between minority and majority students tested in Hypotheses 1 and 2a and 2b will decrease as the students spend more time in the university.

That is, it is predicted that the greatest differences between minority and majority groups will be observed in groups at lower-year levels. Four groups of year levels will be compared: less than one year, one to two years, between two and three years and greater than three years.

Hypothesis 6: The differences between minority and majority students tested in Hypotheses 3 and 4 will increase as students spend more time in the university.

That is, it is predicted that the greatest differences between minority and majority groups will be in students at higher-year levels. Four groups of year levels will be compared: less than one year, one to two years, between two and three years and greater than three years.

# CHAPTER II

## REVIEW OF THE LITERATURE

This literature review examines the history of school desegregation by describing cases which determined the development of current educational and social policy. The literature review also examines research on black and white minority students attending opposite-race educational institutions. The review emphasizes the following areas:

1. Legal Issues in Higher Education
2. Black Students Attending Historically White Institutions
3. White Students Attending Historically Black Institutions
4. Studies of Depression in Minority Students
5. Studies of Alienation in Minority Students.

### Legal Issues in Higher Education

Some social scientists and researchers (Gerard, 1984; Cook, 1984; Cordes, 1984) have raised questions about the impact the legal system has on the development and subsequent articulation of social policy. Recently researchers are again reviewing the Brown v. Board of Education legal battle, because 1984 marked its 30-year anniversary. While the impact of this landmark case should not be underestimated, it is important to understand the legal history from which it developed. This section of the literature review describes some of the major legal issues raised by litigants prior to the Brown case. It also examines some of the legal questions

raised since Brown that have affected the development of school desegregation policies and their impact on historically black institutions of higher education.

The Supreme Court, in Plessy v. Ferguson (1896), established the doctrine of separate but equal. Although this case dealt specifically with the question of public accommodations for blacks (Gunther, 1975), it had widespread implications for many areas which affected the legal rights of black and white Americans. According to Gunther (1975), the litigant, Plessy, argued that he should have all the legal rights of white Americans. Like other blacks that followed him, Plessy refused to give up his seat on a train to a white passenger. However, in the majority opinion of the Supreme Court written by Justice Brown, the legalized separation of the races was upheld. Brown wrote:

> The object of the [14th] Amendment was undoubtedly to enforce the absolute equality of the two races before the law, but in the nature of things it could not have been intended to abolish distinctions based upon color, or to enforce social, as distinguished from political equality, or a coming of the two races upon terms unsatisfactory to either . . . we cannot say that a law which authorizes or even requires the separation of the two races in public conveyances is unreasonable, or more obnoxious to the Fourteenth Amendment than the acts of Congress requiring separate schools for colored children in the District of Columbia, the constitutionality of which does not seem to have been questioned or the corresponding acts of state legislature (Gunther, 1975, p. 708).

Baxter (1982) pointed out that the Supreme Court played an important role in eroding the separate but equal doctrine established

by Plessy v. Ferguson. Most of the cases brought before the court dealt specifically with higher education rather than secondary education addressed by the court in Brown. In the 1930's black students began questioning segregation policies at their weakest point, that is, the failure of most southern states to offer graduate educational facilities for blacks (Bell, 1979).

In Gaines v. Canada (1938) the Fourteenth Amendment right of equal protection of the laws was addressed (Bell, 1979). Gaines, a black student, filed suit because he was denied admission to the law school at the State University of Missouri. Furthermore, the reason he was denied admission was because of a state policy against black and white students attending the same university. Bell (1979) stated that Gaines was given the option of attending an out-of-state school or waiting until the state's predominantly black law school was completed. However, the Supreme Court, ruling in favor of Gaines, stated that these options were insufficient and were not in compliance with his Fourteenth Amendment right to equal protection of the laws (Dimond, 1982).

Baxter (1982) wrote that the issue before the Supreme Court in this case was whether providing a legal education in other states for black students residing in Missouri was sufficient to satisfy the equal protection clause of the Constitution. Fleming (1981, p. 15), like Baxter, argued that this case "established the principle that blacks had to be admitted to white institutions if states did not provide educational facilities for them equivalent to those

provided for whites." In contrast to other cases that followed, the Gaines (1938) case did not specifically address the quality of education provided for blacks (Baxter, 1982).

The Supreme Court adjudicated the question of whether or not black students received the same quality of education in three cases that followed more than a decade after Gaines (1938). In Sipuel v. Board of Regents of The University of Oklahoma (1948) a black woman who qualified for acceptance at the law school was denied admission because of her race (Baxter, 1982). Sipuel (1948) filed suit against the university for being denied her Fourteenth Amendment rights of equal protection under the law. According to Baxter (1982) the court ruled in favor of Sipuel and argued that the state must allow her to obtain a legal education at the University of Oklahoma because there was no other comparable law school in the state. The state, however, attempted to sidestep the future implications of this ruling by enacting the doctrine of separate but equal established in Plessy v. Ferguson (1896). That is, the state attempted to establish a predominantly black law school in Oklahoma (Baxter, 1982).

In 1950, the Supreme Court took a stronger stance than it had previously taken in eroding the doctrine of separate but equal, which had governed public policy for more than half a century. Two cases which Fleming (1981) described as crucial to the success of the Brown (1954) case were Sweatt v. Painter (1950) and McLaurin v. Oklahoma (1950). In the Sweatt case, the Supreme Court forced Texas to admit a black student to a historically white law school

because the historically black institution established by the state did not provide the same quality of education (Fleming, 1981). The latter case was brought before the Court by a black graduate student admitted to the University of Oklahoma but given restricted access to the educational programs. McLaurin could use the cafeteria and library, but was forced to sit in a separate area from his white classmates (Fleming, 1981). The Supreme Court ruled in favor of McLaurin and suggested that

> while the tangible aspects of the plaintiff's educational program were equal in all respects . . . less tangible factors such as the opportunity to engage in discussions and exchange views with other students were inherently unequal (Baxter, 1982, p. 6).

Researchers (Baxter, 1982; Fleming, 1981; Bell, 1979) argued that the McLaurin (1950) and Sweatt (1950) cases all but inhibited the separate but equal doctrine established during the Jim Crow era and set important groundwork for the success of the Brown (1954) case which established the legal precedent that separate facilities were inherently unequal. Cook (1984) reported that the Supreme Court consolidated the Brown case with four other similar cases in Virginia, South Carolina, Delaware and the District of Columbia. Black parents in these five states argued that segregation in public schools deprived their children of equal educational opportunity and that separate but equal education was discriminatory and deprived them of their Fourteenth Amendment rights to equal protection under the law (Cook, 1984).

While it can be argued that the Brown (1954) case occurred in an important historical context, it is also important to understand the contributions which social scientists made in influencing this case. Two noted psychologists, Kenneth B. Clark and Stuart W. Cook, took part in drafting the 1953 statement submitted to the Supreme Court entitled "The Effect of Segregation and the Consequences of Desegregation: A Social Science Statement." Cook (1984) argued that this document extensively explored the effect that segregation had on black children by reviewing more than 40 publications of social scientists and educators. Cook also reported that the existing data then showed that segregation in the life of blacks could lead to feelings of inferiority and lowering of educational and career goals. Others (Gerard, 1983; Goodman, 1972) have argued that the evidence was of poor quality and based more on rhetoric than on hard research data. Bell (1979) took a somewhat different critical tack. He suggested that while the social scientists were well-meaning in their efforts against segregation, they participated in promoting the notion that all black facilities were inherently inferior. That is, black schools and colleges were inferior primarily because they were black, not because of historical inequities. Bell (1979) noted that this distorted perspective is still held by many well-meaning individuals.

Chief Justice Earl Warren delivered the majority opinion in the Brown case which outlawed school desegregation. Several passages in this opinion suggest that, in part, the Supreme Court was

influenced by the social science statement. For example, Cook (1984, p. 821) cited:

> Segregation of white and colored children in public schools has a detrimental effect on the colored children. The impact is greater when it has the sanction of the law, for the policy of segregating the races is usually interpreted as donating inferiority of the Negro group. A sense of inferiority affects the motivation of a child to learn. Segregation with the sanction of the law, however, has a tendency to retard the educational and mental development of Negro children and to deprive them of some of the benefits they would receive in a racially integrated school.

Enforcing the policies handed down by the Supreme Court in 1954 was not a simple matter. Some school districts simply refused to comply with the law, while others tried to sidestep the issue through various tactical maneuvers. In Griffin v. Prince Edward County School Board (1964) the school district responded by closing the county schools and offered money to white students who attended private schools. Many other school districts throughout the South developed a freedom of choice policy rather than forcing desegregation. The freedom of choice tactic was rejected in Green v. County Board of New Kent County (1968). The judicial opinion in this case implied that freedom of choice was an unacceptable policy because it was merely a delaying tactic rather than a realistic plan toward school desegregation.

In the area of higher education, desegregation was also received with a great deal of reluctance and turmoil. Even after many court rulings, many of the state-supported public universities in the

South resisted desegregation. In Alabama, Mississippi and Georgia federal troops had to be brought in to protect the black students who entered these historically white universities.

Court cases abounded during the post-Brown era. For example, in some cases (Sanders v. Ellington, 1968; Norris v. State Council of Higher Education, 1971) the plaintiffs argued that the states operated dual systems of colleges and universities for blacks and whites, often with identical academic programs. In the Sanders (1968) case, the plaintiff brought suit against the University of Tennessee because it planned to expand the academic programs at its Nashville branch, located in the same city as the only historically black state-supported university. The court ruled in favor of Sanders and also proposed the merger of the two schools, with Tennessee State University, the historically black school, serving as the controlling school in the merger. Matlock (1984) pointed out that this was the first time historically black and white colleges had merged and left the black college as the controlling school. However, the merger of the two universities was not the end of the court battle over desegregation faced in that case. In 1984, the courts ruled that Tennessee State University set specific desegregation goals. As reported by Renner (1984), the 1984 resolution of this case stated that Tennessee State University, which in 1984 was 70% black, must become 50% white during the succeeding decade in order to be in compliance with the law.

Many cases brought before the Courts on school desegregation were premised on the Constitutional guarantees in the Fourteenth Amendment or the legal requirements of Title VI of the 1964 Civil Rights Act. As cited in Gunther (1975, p. XCIX) section one of the Fourteenth Amendment states:

> . . . No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty or property, without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws.

The Court's rulings in favor of plaintiffs such as Gaines (1938) and Sipuel (1948), focused on the equal protection clause of this amendment. They argued that excluding blacks from admission to a university based solely on race denied them their Constitutional right to equal protection of the law (Baxter, 1982).

One of the most powerful legal cases that affected public higher education throughout the southern and eastern states was argued in the class-action suit, Adams v. Richardson (1970). This suit, brought before the courts by the NAACP Legal Defense Fund, alleged that the Department of Health, Education and Welfare (HEW) was not compliance with Title VI of the 1964 Civil Rights Act. As cited in Egerton (1981, p. 5) the 1964 Civil Rights Act states:

> No person in the United States shall on the ground of race, color or national origin be excluded from participation in or be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

The plaintiffs alleged that HEW was not enforcing this Act in 10 states that operated dual systems of higher education. Nine other states were subsequently added. While this case was brought before the courts in 1970, issues related to it have been debated for more than a decade since that time. For example, although the Court ruled that the states submit acceptable desegregation plans, it took several years before HEW submitted guidelines to the states regarding these plans (Baxter, 1982). Further, the criteria initially proposed by HEW (Baxter, 1982) required each state (with dual systems) to form a unitary system from the present dual system and desegregate administrative boards, academic and non-academic personnel and student enrollment in every institution.

The legal implications of the Adams case were controversial for many reasons, (Baratz & Ficklen, 1983; Baxter, 1982; Thomas, 1981), particularly because of the questions raised about the role of traditionally black colleges and universities. Because of their concern that historically black institutions would lose their important role in the education of black Americans, several organizations or individuals responded to the Court's ruling. The National Association of Equal Opportunity in Higher Education, a group of black college presidents, submitted a brief to the courts in response to the Adams (1970) case. They contended that historically black colleges had never discriminated against whites and that the unitary system proposed by HEW would ultimately be harmful to black colleges and students (Bell, 1979). Bell (1979)

cited evidence supporting the contention that black colleges would be hurt by a unitary system. For example, he argued that the authority of historically black Florida A & M University has decreased since some of its programs merged with historically white Florida State University. Bell (1979) and Matlock (1984) both agreed that the ultimate effect of assimilation on historically black colleges was negative. Black colleges tended to lose black students, faculty and administrators (Matlock, 1984), whereas white institutions normally did not incur such losses.

In conclusion, the issue of desegregation in higher education has a long history dating back almost a century. The courts have been involved in determining the direction taken by academic institutions and have essentially forced compliance to laws that academicians and other school officials often attempted to sidestep. These court rulings affected both historically white and historically black institutions. However, the final outcome of many of these rulings is still unknown and will only be clarified if the judicial policymakers remain steadfast in their commitment to eradicating and remediating de jure segregation.

## Black Students Attending Historically White Institutions

During the last three decades research on black Americans has flourished. One of the most important reasons for this increased interest in studying blacks is researcher interest in the effects of school desegregation. A great deal of this literature has raised

questions about blacks' self-concept (Clark & Clark, 1947; Stevenson & Stewart, 1958; Goodman, 1952; Baughman & Dahlstrom, 1968; Rosenberg & Simmons, 1971; Harris & Stokes, 1978), career and educational aspirations (Littig, 1971; Gurin, 1970; Kinnard & White, 1973; Gurin & Gaylord, 1976), and emotional and academic adjustment (Willie & McCord, 1972; Standley, 1979; Fleming, 1981; Friday, 1983). While some researchers (Weinberg, 1983; Astin, 1982; Thomas, 1981) have suggested that school desegregation has had a positive impact on minority students, others (Morris, 1979; St. John, 1975) argued against this perspective. Increased educational opportunities and social interaction with whites have likely resulted in both positive and negative consequences for black students.

Allen (1981, p. 127) reported that research on black students enrolled in historically white colleges has primarily focused on three areas:

(1) their social and economic characteristics
(2) their levels of adjustment in predominantly white institutions
(3) their academic success in the institutions.

Allen found that black students at one major historically white university performed better academically if they were satisfied with their college environment. While grade point average was used as a measure of academic success, college satisfaction was determined by student responses on a seven-point scale to the question (p.140),

"How would you describe your general feelings as a student at . . .?" Allen (p. 127) also assessed alienation among 135 subjects by evaluating their answers to the question, "How much do you personally feel a part of campus life in so far as student activities and government are concerned?" Student responses in this area supported his contention that academic performance was linked with a sense of belonging. He found that academic performance was highest for subjects who scored low on this alienation factor.

Like Allen, Rosser (1972) reported that some of the most common difficulties for black students on white campuses were feelings of alienation and poor social support from the institution. Furthermore, Allen (1981) stated that whether or not alienation, dissatisfaction and anxiety led to poor academic performance was a moot point. Instead, he contended that in reality these factors often resulted in poor academic outcomes for black students.

Friday's (1983) study of black and white college freshmen was designed along the same line as that described by Allen (1981) as typical of research on blacks in historically white institutions. In her investigation of their personality and demographic backgrounds, Friday reported that black students attending white institutions tended to come from lower income families with less education and occupationally prestigious jobs than their white counterparts. Further, she noted that there were differences in the family structure (one- or two-parent households) home geographic location (urban or non-urban) and distance traveled to attend school between these

groups. Black students in the historically white institution less often (60%) than whites (84%) came from two parent households, and lived in urban areas farther away from school than their white counterparts. Even with these noted differences, Friday (1983) pointed out that blacks who were enrolled in historically white institutions were more similar to the whites than her black sample who were enrolled in an historically black college in the same city.

Friday's (1983) assessment of personality variables of black and white students indicated more prominent differences than those previously noted. While some studies (Phares, 1972; Rotter, 1966; Battle & Rotter, 1963) noted that blacks had a more external locus of control than whites, Friday found a reversed trend. Whites in her study were twice as likely to be externals, whereas black students were significantly more internal. The data from other personality variables such as adjustment to college, levels of depression and feelings of alienation all resulted in findings similar to other researchers. That is, black students in predominantly white institutions typically had high levels of depression, felt alienated and had academic adjustment problems (Fleming, 1981: Allen, 1981).

Fleming (1981) suggested that the college experience should broaden social contacts for students. However, black students who were enrolled in predominantly white colleges have often been described as having inadequate social contacts and as feeling socially isolated (Hedegard & Brown, 1969). Further, Fleming (1981), reported that black students often came to integrated colleges expecting to be

accepted by all racial groups but came face to face with an environment that in reality was just the opposite. After repeated negative encounters, some researchers (Davis & Borders-Patterson, 1973) suggested that black students sensitivities heightened, which affected the way that they interpreted future interactions with whites.

Interracial attitudes of black students and parents have been investigated by a number of researchers (Patterson et al., 1984; Parsons, 1984; Slavin & Madden, 1979). Some of these studies have shown that the racial attitudes of black students and parents were significantly more positive than those of their white counterparts, but that attitudes improved when actual interaction occurred. Parsons (1984), in a study of 298 black and white families whose school system had recently implemented school desegregation plans, found that lower socioeconomic status (SES) parents had more positive attitudes than did middle or upper class parents; black parents were more positive than white parents. Parsons also found no significant differences in SES and students' attitudes and that black students had more positive attitudes than did whites. Other researchers (Patterson, Sedlacek, & Perry, 1984), comparing two minority groups, found that Hispanics had significantly more positive interracial attitudes and cross-race relationships than did blacks. St. John (1975) in a comprehensive review of the desegregation research as reported in Cohen (1975, p. 282) found:

> Desegregation in the South seems to be associated with negative attitudes by students more often than desegregation in the North . . . too few studies have utilized proper controls on socioeconomic status, but several studies suggest that results for desegregation are more favorable when the socioeconomic backgrounds of the two races are substantially similar.

While there has been a sharp increase in the number of black students in historically white institutions, students have not perceived the same increase in black faculty (Institute for Higher Education Opportunity, 1979). As a consequence, black students must often turn to white faculty to serve as role models and mentors. Willie and McCord's (1972) research on black students in four historically white institutions found that 75% of their respondents said that they obtained very little help from white faculty; almost half never conferred with instructors outside of class and were also unlikely to seek advice from instructors about choosing courses or other instructors. A nationwide survey found that some of the major problems some blacks reported were white professors' tendency to ignore them, question their competence and be unavailable (Boyd, 1974).

Studies of black students in white institutions focusing on academic performance in biracial situations have yielded contradictory findings. For example, Katz and Benjamin (1960) found that blacks' intellectual productivity, influence on team decisions and participation in problem-solving activities were less than their white counterparts, despite the fact that they were matched for

aptitude. A later study found that performance of black students was enhanced in biracial settings if they were in fairly relaxed surroundings, and had a history of academic achievement (Katz, 1967).

Jones, Harris, and Hauck (1975) compared black students in historically black and white institutions to determine whether they attributed academic difficulties to the same factors. They found that blacks in historically white schools perceived that competition between students, poor social life and inadequate high school preparation were primarily sources for academic difficulty. Black students in historically black institutions, however, more often attributed their academic difficulties to poor study habits.

Fleming (1981, p. 288) summarizing a number of studies on black students' academic performance in integrated settings reported:

> (1) A high degree of interaction with whites on work related tasks is likely to be accompanied by anxiety over the consequences of displaying competence and assertiveness. As a result of such fears, black students are likely to avoid such highly interactive situations. (2) Performance in the presence of whites, without a high degree of interaction, can also generate anxiety when the climate is hostile or the students are disadvantaged and are aware of this fact. (3) There are individual differences in the response of black students to white environments.

Although much of the research literature on blacks in historically white institutions has yielded negative findings such as feelings of loneliness, social isolation, hostility (Fleming, 1981; Smith, 1981) and academic difficulties (Friday, 1983), other research (Jones, 1979) has pointed out the advantages and positive factors perceived by students who attended these institutions. For example, in

response to feeling socially isolated, black students often form black student organizations to enhance social support networks and increase cultural activities for all students (Willie & McCord, 1973). Another example of black students' positive reactions to predominantly white institutions has been reported in research conducted by the Southern Regional Education Board (SREB). The SREB surveyed 25,000 black students enrolled in 19 different white institutions. Standley (1978) reported that more than 40% of her respondents chose to attend these institutions because they felt that they had high quality faculty and educational programs. She also found that almost two-thirds of these students stated that they would encourage other black students to attend these schools.

Boyd (1981) stated that considerable attention has been focused on the poor qualifications and the negative social environment of blacks enrolled in historically white institutions. Boyd (p. 144) argued against such a one-sided approach and discussed what he described as the "forgotten side" of these students' academic achievements and career goals. Boyd's (1981) research, based on 800 black students randomly sampled from 40 different white institutions, concluded that blacks' grade point averages increased between 1973 and 1977. Further, he pointed out that many historically white private institutions were successful in recruiting blacks who were academically prepared and who were twice as likely to enroll in math, engineering and biological sciences. Boyd (1981) also suggested that black students could have positive experiences in

white institutions, particularly if they were private and highly selective.

In essence, the literature on black students enrolled in historically white institutions has yielded results which suggested that both institutional and individual responses to this phenomenon were crucial in determining the success of these students. Allen's (1981) research suggested that academic performance was greatest among blacks who reported being satisfied with their college environment and felt that the institution supported their presence there. Based on her research, Friday (1983) recommended that these institutions provide social support, organized programs and include black students in academic, social and cultural activity planning to reduce social isolation and alienation experienced by some of the black students. Like any other college student, individual black students perceive and respond to their college environments differently; this will affect how academically successful they are and whether they feel a part of the institution (Davis & Borders-Patterson, 1973).

## White Students Attending Historically Black Institutions

One neglected area of inquiry related to school desegregation policy is how white students react to their minority status in historically black colleges and universities. Smith (1980) wrote that researchers ignored this area until political and economic expediency forced them to raise questions about the value of contributions made by black institutions to the larger society.

In addition, Elam (1978), Smith (1980), and Brown and Stein (1972) all pointed out that reverse desegregation litigation has significantly increased the number of white students enrolling in opposite-race institutions, but researchers have been slow to respond to this new phenomenon. The available research in this area has therefore only begun to examine the psychological and social issues that affect this new minority population; the work is still primarily descriptive rather than empirical.

Standley (1978) in research conducted by the SREB of white college students enrolled in 20 historically black institutions described the demographic profiles and perceptions of these students. Standley's results were based on data from an 82-item questionnaire completed by 1,189 students. The demographic data on her sample were found to be consistent with the portrait of other white students enrolled in black colleges (Elam, 1978; Brown, 1973). In general these students were over 23 years old (80%), married (60%); lived off campus (99%), and were female (59%). A large percentage (38%) of white students enrolled in black institutions also tended to be in graduate school and majored in education (44%).

Brown and Stein (1972) reported that white students in black institutions tended to be older and more mature than the typical college student. Elam (1978) also described the profile of white students as atypical, which was consistent with the research of Astin, Hemond, and Richardson (1982), who found that the typical college freshman was 18, unmarried, and lived with his/her parents prior to enrollment.

The values and attitudes of white students on black campuses have been investigated by researchers (Elam, 1978; Standley, 1978; Stevens, 1976; Lyons, 1973) interested in why they make this educational decision. Elam (1978) suggested that both economic and philosophical values influenced the choice of many white students to attend a black institution. For example, Elam (p. 34) cited Brown (1973) and Stevens (1976) who both suggested that white students have "goals firmly fixed," and "had a serious attitude toward their education and apparently were not there to participate in social or extracurricular activities." White students in another study cited by Elam (1978) chose to attend a black institution because they wanted to have the experience of being in the minority and wanted to better understand blacks. Brown and Stein (1972), Buffkins (1977) and Brown (1973) found that the desire of white students to enroll in these institutions was based on practical values such as location, low cost and academic programs relevant to their career goals. Laukaitis (1980) also stated that some black colleges have developed high demand academic programs that were unavailable elsewhere in the immediate vicinity, thus making them attractive to all students. Therefore, white students attended these institutions because their educational and career goals could be met.

Damico and Scott (1984, p. 165) described three conditions as postulated by Allport (1954) that promoted positive attitudes toward integration and intergroup contact between minority and majority group students:

> (1) minority and majority group members must enjoy equal status; (2) there has to be cooperative interaction aimed at achieving shared goals; and (3) there must exist a social climate in which authority figures are seen as supporting interracial association.

Damico and Scott (1984) examined the intensity of cross-race contacts of white students from high school to college. They described (p. 167) a three-tier hierarchy of cross-race contact: "supportive norm contact," "cooperative interdependence," and "equal status contact." The least intense level, supportive norm contact, involved interactions that were superficial such as attendance at an athletic event. Cross-race contact in cooperative interdependent interactions was somewhat more intense and involved working to achieve a common goal. The most intense level, equal status contact, involved intimate interactions such as visiting other students' homes or discussing personal issues. Damico and Scott (1984) found that there was a significant positive correlation between the frequency of cross-race contact in high school and college. They also found that students that had engaged in cooperative interdependent and equal status contacts in high school were more apt to do so in college. Other researchers have reported similar findings (Slavin & Madden, 1979).

Some researchers have been interested in the response of black students, faculty and administrators to increasing enrollment of whites in black institutions. Burrows (1977) surveyed the five top administrators at 20 black institutions to assess their perceptions of the impact of school desegregation at their institution. Responses from 70 of these administrators indicated

that while 51% believed that desegregation of higher education helped blacks to achieve a better education, 37% did not. Asked what percentage of non-black students, faculty and administrators they desired in their institutions, they responded: 20% to 30% students, 20% to 30% of the faculty and 10% or less of the administrators.

Laukaitis (1980) reported that one fear of black administrators was the merger of their school with a historically white institution. They feared both a loss of identity for their institution as well as job losses for faculty and administrators. Elam (1978) suggested that how black students' responded to whites in their institutions was affected by how rapidly the change occurred. An adverse response from black students occurred most often when black students feared losing the institution and its cultural heritage because they felt pushed out when white students enrolled in large numbers (Elam, 1978).

White minority students have reported high degrees of satisfaction with academic programs, teachers and the institutions' ability to prepare them for the job market (Standley, 1978; Brown & Stein, 1972). The majority (66%) reported that their degrees would be worth as much as a degree from a white institution and that they (53%) would choose the same school if they had it to do over again (Standley, 1978). However, researchers suggested that these students, like their black counterparts who were satisfied with academic standards, were often isolated and uncomfortable with their minority status. Stevens (1976) reported that while white students enrolled in black institutions, they were usually unwilling

to live in the dormitories or on the campus. She found that white students feared for their well-being and the negative reactions of other whites. Bellamy (1982) also reported that many white students had trouble coping with a predominantly black environment because they were culturally deprived and had never been in a minority position.

Willie (1981) stated that one tragic assumption made about school desegregation was that blacks were the primary beneficiaries. He pointed out that most of the research in this area was biased in this direction and did not recognize or discuss the advantages white students have also attained. For example, Willie (1981) suggested that all students should have the opportunity of experiencing being in the minority, and that what was learned as a minority was different from that learned as a majority individual. Willie and Hedgepeth (1979, p. 91) suggested that in addition to academic goals, black institutions exposed all students to a "double culture" and helped them develop a "double consciousness." They suggested that this experience could be particularly beneficial to white students who often were culturally limited.

While it might be conjectured that most white students who enroll in black institutions have had significant prior personal contacts with blacks, the literature suggests that the majority have not. For example, Brown (1973) found that 56% of white students enrolled in 18 black public colleges and universities reported having almost no prior contact with blacks. Brown and Stein (1972) found that 50% of the white students sampled from five black institutions

in North Carolina described their prior interaction with blacks as limited or nonexistent. Standley (1978) found that three-fourths of white students surveyed in 20 black institutions attended a predominantly white high school, which was typical of the type of high school attended by whites enrolled in historically white colleges (Friday, 1983).

Other researchers (Standley, 1978; Brown & Stein, 1972; Elam, 1972) reported that the attitudes and perceptions of white students were positively affected by their experience as a minority. For example, Baker (1980) studied the relationship between a student's race, racial composition of the school and perceptions about the college environment. Using the College and University Environment Scale, which is designed to assess the social, cultural and intellectual atmosphere, he found that white students enrolled in black colleges had significantly different perceptions from their black or white counterparts. The white students ranked the quality of teaching, faculty-student relationships and campus morale higher than did black students in these institutions. In general, students ranked black campuses higher than white campuses on morale, community, propriety and quality of teaching. Finally, Baker (1980) noted that in all instances where differences were found in the students' perceptions, they favored the black institutions.

In essence, the literature on white students enrolled in historically black institutions suggests that they are often not the typical students. They tend to be more mature, more focused

on why they are attending college and perhaps better able to handle being in a minority position. However, these students usually do not participate and become a part of the campus as do other college students. Therefore, while they are in a minority position in school, they are usually able to retreat from this by living off campus with other whites. The literature in this area is very limited and will need to be expanded before many of the questions about this new minority group and the impact of reverse desegregation can be answered.

## Studies of Depression in Minority Students

Negative affective states among minority students have been studied extensively by researchers investigating the psychological effects of school desegregation. One area of inquiry explored whether minority students evince higher rates of depression in segregated or desegregated institutions of higher education (Friday, 1983). However, to address this question adequately, it is important to understand some of the major theoretical conceptualizations of depression.

Psychoanalytic theories of depression with their foundation in the work of Sigmund Freud have evolved during the twentieth century. Freud (1917) initially conceptualized depression as being similar to the grief experienced following the death of a loved one. Drawing primarily on clinical observations, Freud distinguished between depressed individuals and mourners, as the former also showed evidence

of lowered self-esteem (Weitzel, 1984). According to Weitzel, Freud suggested that in order to maintain their self-esteem, depressed people withdrew their psychic energy from the lost object (either real or imagined) and transferred it to their own egos. However, in order to maintain some semblance of the lost object, the individual incorporated and identified with it so strongly that the anger meant for the lost love object was turned inward toward the self. Weitzel (1984, p. 22) wrote that "this love-hate ambivalence is believed to predispose persons to depression."

Ego psychologists, like their Freudian counterparts, focused on the history of the depressed individual to explain the emotional state. However, unlike Freud their emphasis was on conflicts and tension experienced by the ego rather than masochistic id drives as described by Freud (Weitzel, 1984). Bibring (1953) described depression as being caused by feelings of helplessness, powerlessness and narcissistic injury to the ego. From this perspective depression was also caused by conflicts between the perfect self and despised self described by DeRosis and Pellagrino (1977).

Using an object-relations framework, Blatt (1974) described depression as either anaclitic or introjective. According to Weitzel (1984, p. 31):

> Anaclitic depression stems from symbiotic attachment to the mother and the fear of abandonment during infancy. Introjective depression stems from a higher level of ego development, evolving from fear of separation-individuation from the object relation in early childhood.
>
> In both cases, the focus is on the mother-child relationship with the acknowledgment that the father or other primary caretaker also may be the significant object relation.

In contrast to the psychoanalytic model of depression, existentialists view depression as a consequence of feelings of alienation from their authentic self and from other individuals (Weitzel, 1984). In essence, the individual in an attempt to adhere to his social role and belong, loses touch with the aspects of himself that make him unique (Weitzel, 1984). Furthermore, depressed people have been described as those who do not participate in relationships, but rather act as observers (MacMurray, 1961).

Tillich (1959) argued that authenticity was related to knowing oneself and that this took a great deal of courage which depressed people seemed to lack. Bugental in The Search for Existential Identity (1976) described several important guidelines which existentialists use to work with depressed people:

> 1. Whatever the problem, do not try to solve it. Instead, instruct people to "soak in" the issues for quite a while. Consider them from all angles and experience the feelings that accompany their thoughts.
> 2. Encourage people to share their thoughts with you or another person, but do not respond except to encourage further communication. If no one is available, direct them to write with the same uncensored freedom.
> 3. The process will lead to new perspectives as the depressed person opens up. What appeared to be hopeless in the beginning now has possibilities.
> 4. The changing process leads to an awareness that something new has been created. The real work of problem-solving has been done, for it is the process itself that is a healing, self-actualizing force, according to existentialists (Weitzel, 1984, p. 225).

A model of depression that involves the interaction between the individual and his larger social environment (family, work, school) was recently discussed by Weitzel (1984, p. 129). She

described this new paradigm as the "person-environment model" of depression. She also suggested that the depressed individual often has a maladaptive personality style in which dependency is a primary psychological factor. Such an individual interacts constantly with his environment within the family, school, work or other broader social contexts. According to Weitzel (1984) the environment is on a continuum from very supportive to very unsupportive. Individuals highly predisposed to depression are dependent people in unsupportive environments, whereas those least likely to become depressed are independent and supported by their environments. Weitzel (1984) pointed out that the constant interaction between the individual and his environment is a multidimensional process such that the degree and severity of depression over time may change.

Cognitive theory (Beck, 1979) stresses the crucial role of negative internal statements individuals make as a primary cause of depression. Beck (1973) suggested that depressed individuals have low self-esteem as is evinced by their negative self-statements. For example, Beck (1973, p. 16) stated that mildly depressed individuals make statements such as "I've let everybody down" whereas severely depressed individuals state "I don't deserve to live," or "I loathe myself." Beck (1979), also argued that depressed people victimize themselves and have distorted self-perceptions. Weitzel (1984, p. 182), describing the work of Beck and his colleagues, stated that depressed people also make "errors of logic . . . arbitrary

inference, selective abstraction, overgeneralization and magnification or minimumization." Weitzel (p. 183) defined these as follows:

> Arbitrary inference is reflected in conclusions drawn without adequate evidence.
> Selective abstraction refers to conclusions drawn on the basis of a single element among many possibilities.
> Overgeneralization represents sweeping conclusions based upon a single event.
> Magnification and minimumization are gross evaluation errors with little or no basis in reality.

Life events theory (Holmes & Raye, 1967; Weitzel, 1984) described depression as a psychological response to environmental stressors which have varying degrees of importance depending on the individual. Holmes and Raye (1967) developed the Social Readjustment Rating Questionnaire to examine the relationship between stressful life events and pathological responses to obtain data about the relative importance of stressors. They posited that individuals at high risk for depression tended to have a larger number of more severely stressful life events. Weitzel (1984), suggested that some examples of stressful life events included experiencing loss, loneliness, or changes in social roles. Friday (1983, p. 29) pointed out that "separation from family and friends and adjusting to the new environment" make college students particularly vulnerable to depression.

Friday (1983) suggested that the study of depression in college students was a controversial issue because researchers disagreed on whether depressive symptoms in this population were the same as those exhibited by the general patient population or were due

more to situational stressors. Using the Beck Depression Inventory as a measure of depression, Friday (1983) found that minority students enrolled in an opposite-race university evinced higher rates of depression than their white counterparts at the same institution. These black students were also found to be more depressed than their white counterparts in a historically black college, suggesting that their minority status in the institution was related to increased levels of depressive symptomatology.

Hammen (1980) examined the characteristics of depressed college freshmen and found that for 53% of her subjects, depressive symptomatology was only transitory, lasting from two to three weeks. However, she also observed that subjects that were depressed upon three week follow-up exhibited similar depressive symptoms as other patient groups.

Seligman argued that depression was the most common psychological problem among students and was increasing in frequency. Seligman (1973, p. 43) described it as the "common cold of psychopathology." However, Bumberry, Oliver, and McClure (1978) suggested that very little was known about the prevalence of depression in this population. They stated that estimates of the prevalence ranged up to 50% higher than that found in the general population. Kashani and Priesmeyer (1983) pointed out that depressive symptoms were most often reported among college freshmen which was a critical adjustment period for students. For example, they stated that freshmen must adjust to more rigorous academic demands, independent living away from family

and friends, and also complete the transition from adolescence to adulthood.

Glaser (1967) stated that while depression in adults is usually well-defined and easy to recognize, in adolescents and children the picture is not as clear. Fleming (1981) described the college years as an extended adolescent period in which students struggle with making the transition between childhood and adulthood. Relying on Ericksonian theory, Fleming (1981) suggested that college students encountered identity problems which may often be exaggerated and which may be masked or manifested in many ways. For example, Fleming (1981) reported that 30% of the black college students she interviewed in both opposite and same-race institutions reported school-related problems which caused periods of unhappiness or helplessness; 17% reported intrapsychic problems. Fleming (1981) found that while black students in same-race institutions usually dealt with the unhappiness by communicating with others, blacks in opposite-race schools tended to make use of mental distraction, i.e. forgetting or blocking it out. As a result of their failure to discharge tension, Fleming implied that these students were more vulnerable to interpersonal stress and depression.

Abramowitz (1969) and Costello (1982), studying depression in college students, found an association between locus of control and depression. Others (Zemore & Bretell, 1983; Wilson & Krane, 1980) reported a strong correlation between depression and self-concept. These researchers suggested that students with poor self-

concepts or an external locus of control tended to have academic difficulties, and often attributed their failures to external factors.

In addition to the internal psychological variables that have been associated with depression, researchers (McCarthy & Yancey, 1971; Weissman & Klerman, 1977; Rainwater, 1966; Pettigrew, 1964) have also described background variables such as race, socioeconomic status (SES) and sex that are related to affective states. These writers argued that based on theoretical and empirical evidence, it seemed inevitable that blacks and lower SES persons would have negative self-perceptions and feel depressed. For example, some researchers (Friday, 1983; Sien, 1983; Astin, 1982) found that being black in predominantly white environments exacerbated feelings of depression and negative self-evaluation. These negative affective responses have often been explained as reactions to negative evaluations of the larger white society (Ausubel & Ausubel, 1963). However, others (McCarthy & Yancey, 1971; Rosenberg & Simmons, 1971) argued against this perspective and reported that even though blacks were aware of the negative evaluations of the larger society, it did not necessarily follow that they based their own self-evaluations on them. Instead, they proposed that blacks based their self-evaluations on peer reference groups. This perspective has been supported by empirical research (Baughman & Dahlstrom, 1968; Hunt & Hardt, 1969) which has shown that blacks and whites reponded similarly on measures of depression and self-evaluation.

Yancey, Rigsby, and McCarthy (1972) reported that socioeconomic status (SES) was an important intervening factor which has often confounded the research on racial comparisons of affective states. The relationship between SES and affective states was described by researchers (Dohrenwend, 1967; Pettigrew, 1964) who found that there was an inverse relationship between the two variables. Others (Coopersmith, 1967; Rainwater, 1966) found a similar relationship between socioeconomic status and self-concept and alienation.

In a comprehensive review of sex differences in depression, Weissman and Klerman (1977) found that women were twice as likely as men to be depressed. They hypothesized that this difference may be spurious because of the tendency of women to seek help, biases in diagnostic techniques, or because of variations in reporting symptoms. However, their findings indicated that these differences in rates of depression between men and women were real and not artifacts. Weismann and Klerman (1977, p. 108) reviewed genetic, psychological and social explanations of these sex differences and concluded:

> it is highly unlikely that any one of the explanations already described will be the sole factor accounting for the phenomena or that all types of depressions will be associated with the same risk factors.

In conclusion, the research on depression in minority college students suggests that there are many unanswered questions. The results of the research thus far depend greatly on the theoretical

and methodological biases of the researchers as well as numerous intervening variables which have been reviewed.

## Studies of Alienation in Minority Students

Alienation has been described in the literature as a multi-dimensional concept that can vary depending on the context within which it is measured (Burbach, 1972). In order to understand how alienation affects an individual or group, it is important to delineate the major dimensions and contexts described in the literature in this area.

Seeman (1959) provided a comprehensive review of the sociological and psychological literature describing five primary ways the concept "alienation" has been used. He stated (p. 784) that the first dimension, powerlessness, "can be conceived as the expectancy or probability held by the individual that his own behavior cannot determine the occurrence of the outcomes, or reinforcements, he seeks." This definition is similar to Rotter's (1966) concept, external locus of control. Meaninglessness, the second dimension (p. 786) has been used to describe "when the individual is unclear as to what he ought to believe--when the individual's minimal standards for clarity in decision making are not met." Seeman noted that while powerlessness involved the inability to control outcomes, meaninglessness involved the inability to predict them.

Normlessness, often called anomie in the sociological literature (Merton, 1946), was Seeman's (1959) third dimension of alienation.

Normlessness (Seeman, p. 788) was described as a situation "in which there is a high expectancy that socially unapproved behaviors are required to achieve given goals." In this sense alienation was said to occur when the norms regulating behavior had broken down and were no longer useful as rules of conduct (Seeman, 1959).

The fourth type of alienation Seeman (1959) described was isolation. Seeman (p. 789) wrote that isolation was an intellectual process in which individuals "assign low reward value to goals or beliefs that are typically highly valued in the given society." He argued against the use of the term as described by Dean (1956) who related it to the quality of social relationships between individuals. Seeman (1959) also made a distinction between isolation and the fifth dimension of alienation, self-estrangement. He described self-estrangement similar to the views of Fromm (1955, p. 120), who wrote that "by alienation is meant a mode of experience in which the person experiences himself as an alien. He has become, one might say, estranged from himself."

While the meaning of alienation is important, Burbach (1972) wrote that it was crucial to consider contextual issues in measures of alienation. Dean (1961) developed a scale used to measure alienation in society that incorporated some of the theoretical descriptions (Seeman, 1959). The Dean Alienation Scale (1961) consisted of three distinct subscales: powerlessness, normlessness and social isolation. In developing this scale, Dean (1961) found that there was a significant negative correlation between

alienation and occupation, education and income. He also suggested that alienation was a situational variable that might better be explained in a context more specific than in society.

Burbach (1972) developed the University Alienation Scale as an instrument designed specifically to measure alienation in college and university settings. He incorporated the theoretical and empirical research of Seeman (1959), Dean (1961) and Middleton (1963) in the development of his scale. The scale, which consisted of three distinct subscale components, i.e., meaninglessness, powerlessness and social estrangement, was described by Burbach (1972) as a contextual measure of alienation. Burbach's (1972) and Dean's (1961) scales have been used in research on the adjustment of college students (Burbach & Thompson, 1971; Tolor, 1974; Suen, 1983).

A large body of research exists on the adjustment of minority students to school desegregation. While some of the researchers in this area (Littig, 1971; Gurin, 1970; Gurin & Gaylord, 1976) focused primarily on career and educational aspirations, others (Burbach & Thompson, 1971; Suen, 1983; Friday, 1983; Oliver et al., 1985) investigated the emotional and social adjustment of minority students.

Soon after black students began enrolling in historically white colleges and universities, researchers (Middleton, 1963; Burbach & Thompson, 1971) began reporting that blacks felt more alienated than their white counterparts. Harper (1969) suggested that for black students, a white university often resulted in feeling extremely

alienated. Burbach and Thompson (1971, p. 248) pointed out that one of the deficiencies in this literature was related to "the dearth of empirical studies and lack of information concerning alienation in students of minority affiliation other than Negro." They compared Puerto Rican, black and white college students on the Dean Alienation Scale (1961) and found that on the total scale, blacks felt significantly more alienated than whites or Puerto Ricans; whites were not significantly different from Puerto Ricans on the total scale. Black students also made significantly higher alienation scores on the powerlessness and normlessness subscales than did white students. Burbach and Thompson (1971, p. 251) explained these findings as follows:

> The difference on normlessness suggests that blacks experience a greater sense of purposelessness (the loss of socialized values and the absence of values that might give purpose to life) and more of a feeling of being confronted with contradictory normative patterns than their white counterparts. The difference on powerlessness can be attributed to heightened feelings among blacks that they lack control over the day-to-day events in their lives and that they are being used and manipulated for purposes other than their own.

Pfeifer and Schneider (1974) investigated black and white students' perceptions of the climate of a large, predominantly white university. They found that blacks scored significantly higher than whites on social isolation, personal racism, institutional racism, administrative neglect, and racial separatism. Whites scored significantly higher than blacks on social interaction and participation in non-classroom related activities. Pfeifer and Schneider (1974) concluded that the blacks perceived the climate

of this predominantly white university more negatively than did whites. They also suggested that there was a link between these negative perceptions and academic performance. Others (Friday, 1983; Suen, 1983) have reported similar findings.

Madrazo-Peterson and Rodriguez (1978) investigated the perceptions of Chicano, native American and black students toward the predominantly white university they were attending. They found that black students felt significantly more social isolation than the other two minority student groups. They also reported that the minority females reported more feelings of stress and isolation than did minority males. Madrazo-Peterson and Rodriguez (1978, p. 262) in a discussion of the perceptions reported by minority students, pointed out the following:

> The degree to which social isolation creates stress for minority students was unexpected . . . students reported experiences of racism, prejudice, and discrimination both on campus and in the local community. Many minority students reported being singled out in classes and living situations and asked to give not only their own opinion, but an opinion that could represent all minority groups as well as their own specific group. The well-intentioned motivations of instructors or other students may only legitimize and perpetuate any feelings minority students have that they are different and unable to fit in with most other people in their environment.

Other researchers (Patterson, Sedlacek, Perry, 1984) compared the perceptions of minority students at two different predominantly white universities and found that despite the dissimilarity between the institutions, black students tended to report similar attitudes of racial hostility at both. They also found that black students

were significantly less comfortable than Hispanics in interracial situations and were less likely to date white students. These findings are consistent with other studies that compared different minority groups (Webster, Sedlacek & Miyares, 1979; Burbach & Thompson, 1971).

Suen (1983) investigated the relationship between alienation and attrition of black students in a predominantly white university, because attrition had been reported at a significantly higher rate for blacks than for whites at these institutions. Using the University Alienation Scale (Burbach, 1972) as a measure of alienation, Suen (1983) found that black students scored significantly higher than whites on the social estrangement subscale and had 28% higher attrition rates. Among black students, attrition was found to be directly related to alienation but inversely related to GPA. However, among white students, no significant relationships existed between attrition and alienation; GPA and attrition were inversely related.

In contrast to Burbach and Thompson (1971), who found that black students felt significantly more powerlessness and meaninglessness than white students, Suen (1983) reported no significant differences between racial groups along these two dimensions of alienation. Suen (p. 120) explained this change as follows:

> A possible explanation for the change is that the atmosphere of society, as well as that of predominantly white universities has changed during the 1970s. Black militance, for instance, is not as visible as it was 10 years ago. With the greater amount of black student involvement in

> campus decision making and with increase in educational opportunity programs, which provide guidance for black students in career choices and other assistance, it is conceivable that black students today do not feel as powerless and meaningless as black students did 10 years ago.

Oliver, Rodriguez, and Mickelson (1985) investigated the relationship between grade point average (GPA), alienation and social class in black and Chicano students enrolled in a predominantly white university. They found a stronger correlation between high school and college GPA among lower class students ($r$=.44, $p$<.01) than among higher class students ($r$=.22, $p$<.05). They also found a significant negative correlation ($r$=-.39, $p$<.01) between father's education and alienation in lower class students; such a relationship was not manifest for higher class Chicano students. However, among blacks, Oliver, Rodriguez, and Mickelson (1985) found that social background factors and high school GPA were only weakly related to college GPA. No significant relationships were reported between perceptions of alienation and social class, high school GPA and parental education. They concluded that for Chicano students social class was an important determinant in students' GPA and in their perceptions of alienation. However, for blacks GPA was not consistently related to social class or alienation. Black students were more likely than Chicanos to feel alienated and had lower GPAs regardless of social class.

In conclusion, the literature on alienation in college students suggests that minority status can increase the probability that

students will experience alienation. However, different minority groups have been found to respond differently to minority status. The research in this area has primarily focused on racial or ethnic minorities rather than investigating how other minority status students adjust to these social and academic environments. As a result, critical gaps still exist in the research literature in this area.

## Summary

This review of the literature suggests several important issues which need to be addressed in order to fill important gaps in the research on minority students. First, researchers need to broaden their perspective and include white students in their conceptualization of minority populations, rather than focusing only on the traditional racial and ethnic categories. This is to say that "minority" implies an actual numerical phenomenon in a particular setting, and can be studied as such. Second, the last three decades of court cases involving desegregation in both secondary and higher education have stimulated psychological investigators to examine the impact of social and legal policy on the emotional well-being of blacks. To a much lesser extent, researchers have also investigated the impact of reverse desegregation on whites. However, the literature here is extremely limited and primarily descriptive. Finally, the evidence of the studies reviewed here suggests that no one clear-cut picture exists to describe the minority student. Instead, like majority students,

they are a diverse population that may share some commonalities because of their minority position as perceived by the larger society.

# CHAPTER III

# METHODS

## Overview

This is a study of minority and majority status students in university settings. The study required the selection of subjects that met particular criteria. This chapter describes the sample, measures, and other methodological procedures.

## Subjects

Subjects were solicited from one predominantly black and one predominantly white university in the state of Tennessee. The total sample consisted of 289 students, of which 138 (47.8%) were black and 151 (52.2%) were white. Of the entire sample, 48 (16.6%) were black students enrolled in the predominantly white university and 65 (22.5%) were white students enrolled in the predominantly black university. For present purposes these two groups constitute the minority group for they were, in fact, in the minority in their respective universities. In the present research, the two minority groups will be referred to as the minority blacks (blacks in the predominantly white institution) and minority whites (whites in the predominantly black institution). Of the entire sample, 86 (29.8%) were white students enrolled in the predominantly white university and 90 (31.1%) were black students who attended the

predominantly black university. These two groups constitute the majority group and will also be referred to as majority whites and majority blacks. Other demographic characteristics of the four subgroups appear in Chapter IV (page 70) in the section entitled Summary Descriptive Statistics for the Four Subgroups on the Demographic Variables.

## Instruments

The measures used in this study were:

1. Background Questionnaire
2. Profile of Mood States, Bipolar Form
3. Dean Alienation Scale
4. University Alienation Scale
5. Attitude Toward Integration Questionnaire
6. Behavioral Interaction with the Opposite Race Questionnaire.

### The Background Questionnaire

The Background Questionnaire was designed specifically for this study to obtain the following types of information from each subject:

1. Personal characteristics: sex, age, race, marital status, current residence.
2. Family background: parents' education, family income.
3. Educational background: high school and college grade point average, college board scores, college currently attending, current year level, transfer status.

4. Occupational aspirations: major field of study, future career goal, highest degree desired.

The Profile of Mood States, Bipolar Form (POMS-BI)

The POMS-BI (Lorr & McNair, 1982) is a 72-item, four-choice rating scale designed to measure affective states. According to its developers, the POMS-BI was constructed to evaluate all of the factor analytically established mood states and feelings reported by both normals and psychiatric outpatients. It was constructed as a bipolar instrument so that both positive and negative affects could be assessed, rather than measuring only negative feelings which typically occur in clinical settings. This makes the POMS-BI an appropriate instrument for assessing the mood states of normal populations.

The POMS-BI (Lorr & McNair, 1982) consists of the following bipolar subjective mood states: composed-anxious, agreeable-hostile, elated-depressed, confident-unsure, energetic-tired, clearheaded-confused. The positive pole reflects the more desirable aspects of the dimension while the negative pole reflects the more undesirable aspects. Each dimension consists of 12 adjectives which the subject responds to by choosing one of the following responses: much unlike this, slightly unlike this, slightly like this, much like this.

In the present research the elated-depressed dimension was used to test Hypothesis 1 on depression. This instrument was selected because of its relative ease of interpretation and because norms have been developed on various populations, including non-psychiatric

populations such as college students. It was chosen also because of its widespread usage among researchers and because it has been reported as a reliable measure of affective states (Lorr & McNair, 1983).

Dean Alienation Scale (DAS)

The Dean Alienation Scale (Dean, 1961) was designed to measure alienation in society and consists of 24 items presented in a 5-choice, Likert-type scale from strongly agree to strongly disagree. Dean included three major subscale components in this measure of alienation: powerlessness, normlessness and social isolation. He defined these concepts as follows:

1. Powerlessness (9 items)--an inability to control one's life or influence the outcome of one's behavior in society.
2. Normlessness (6 items)--a feeling of loss of internal values to provide direction or the values that do exist are irrelevant to current society.
3. Social isolation (9 items)--feeling lonely or separated from society.

The DAS and the social isolation subscale were selected as measures of alienation and social isolation to test Hypothesis 2. Total scores ranging from 0 to 96 were possible for the total alienation score, although Dean (1961) reported normative scores between 30.2 and 36.6. Total scores on the nine items of the social isolation subscale had a possible range between 0 and 36, although Dean (1961) reported normative scores between 11.8 and 15.2.

Dean reported split-half reliabilities of .78 for the total Alienation scale, .78 for the Powerlessness subscale, .73 for Normlessness and .84 for Social Isolation. Factor analysis results showed that there were strong relationships among the three factors and that they were also highly correlated with the generalized factor of alienation (Alienation and Powerlessness, $r$ = .90; Alienation and Normlessness, $r$ = .80; Alienation and Social Isolation, $r$ = .75). This scale was selected because of its reliability (Dean, 1961) and because it has been frequently used by researchers (Friday, 1984; Burbach & Thompson, 1971) to assess alienation among college students.

University Alienation Scale (UAS)

The University Alienation Scale (Burbach, 1972) was designed to measure alienation of students within a university or college environment. Burbach reported that alienation should be examined within a specific context, rather than assuming that one can feel alienated irrespective of the specific environment. This 24-item, 5-choice likert-type scale, similar to the Dean Alienation Scale, consists of three subscales. Burbach (1972) described these three subscales as follows:

1. Powerlessness (9 items)--a sense of loss of control over one's life in a university.
2. Meaninglessness (8 items)--a sense of loss of purpose or direction in a university.

3. Social Estrangement (7 items)--feeling lonely in a university.

The UAS and the social estrangement subscale were used in this research as measures of alienation and social isolation in the university. Total scores on the 24 items of the total scale could range between 0 and 96 and for the social estrangement subscale between 0 and 28. No normative data were reported for the scale.

Burbach (1972) reported that the UAS was significantly correlated with the Dean Alienation Scale ($r$ = .58, $p<.01$). A significant correlation was also reported between the social isolation on the DAS and social estrangement on the UAS ($r$ = .54, $p<.01$).

Burbach reported split-half reliabilities of .92 for the Total Scale, .79 for Powerlessness, .89 for Meaninglessness, and .72 for Social Estrangement. Factor analysis of the individual items showed that the three factors were cohesive enough to lead to a three-dimensional scale but that the correlations between the subscaled factors were also strong enough to consider the existence of the overall alienation factor (Suen, 1983).

Attitude Toward Integration Questionnaire (ATIQ)

The ATIQ was developed specifically for this study to assess students' attitudes toward integration and was designed to test Hypothesis 3. The original pool of questions given to subjects consisted of 27 items, presented in a 5-choice Likert format from strongly agree to strongly disagree. Fifteen of these items were developed by the researcher and 12 items were selected from Elam's (1972) "Survey of Social Attitudes," a measure of attitudes toward

integration. These 27 items were factor analyzed to determine whether items would load to form cohesive dimensions. A two-factor solution was computed from individual items with factor loadings of .40 or greater. The two factors were determined by factor loadings on the varimax rotated factor matrix. The first factor which consisted of six questions was labeled "attitudes toward integration in social systems." The second factor, which consisted of the nine remaining items, was labeled "attitudes toward integration in interpersonal situations." Fifteen of the 27 original ATIQ items were used in the final data analysis of students' attitudes toward integration. The 15 items appear in the Appendix.

Behavioral Interaction with the Opposite Race Questionnaire (BIORQ)

The BIORQ was developed specifically for this study to assess students' behavior with students of a race different from their own. This questionnaire, which consisted of 35 items, was constructed to test Hypothesis 4. The 35 items selected by the researcher were included in the instrument because they represent typical student activities that require personal interaction with others. Each item was then evaluated for the degree of intimacy it involved by four graduate student raters on a Likert-type scale from 1 (low intimacy) to 5 (high intimacy). Individual items were assigned intimacy scores; the mean scores of the four graduate student raters. Members of the sample were given directions which asked them to respond in one of four ways to each item: yes, no, unwilling to

respond, or not applicable. A student's BIORQ mean score was obtained by summing the intimacy ratings for each item to which the student responded affirmatively and dividing by the number of responses answered yes, no, or unwilling to respond. The questionnaire was given in two forms, one with items stated for black students, the other for white students. The 35 questionnaire items appear in the Appendix.

## Procedures

All subjects volunteered to participate in the study and were solicited from classes in the undergraduate programs of the two universities. Because of their relatively small numbers in the entire university populations and in academic classes, minority blacks and minority whites were also solicited from minority student organizations such as fraternities, sororities, and minority student groups.

Subjects were given information about the nature of the research in group meetings in classrooms or other university meeting areas, and were asked for their voluntary participation in the study. Each volunteer was given a data packet that included the six research instruments and a letter from the investigator describing the nature and purpose of the study. Specific instructions were given on the individual measures that described how to complete each instrument.

The results of this study appear in Chapter IV.

# CHAPTER IV

# RESULTS

## Overview of Statistical Analyses

The results were analyzed in one of several ways depending on the nature of the hypothesis or type of variable being tested. Descriptive statistical data such as means, frequency counts, standard deviations and ranges were computed on all the dependent measures and on the demographic variables. Factor analyses were also performed on the demographic variables. The inferential statistical techniques included chi square analyses, t tests and analyses of variance on the demographic variables. The hypotheses were tested with analysis of variance and analysis of covariance procedures. The data were computer analyzed with the SPSSX statistical program (Norusis, 1984). In addition, the General Linear Model (GLM) procedure available in the SAS statistical program (Freund & Littell, 1981) was employed as a post hoc testing procedure on the dependent measures. Table 2 summarizes the procedures employed to test the hypotheses and demographic variables.

Chapter IV, which presents the results of the study, is organized in the following manner. First, summary descriptive statistics for the total sample are reported for each of the hypothesized dependent variables. Second, summary descriptive statistics are reported for the four major subgroups on the dependent variables

Table 2. Measures and Statistical Procedures Used to Test the Hypotheses and Demographic Variables

| Hypothesis | Measure | Statistical Procedure |
|---|---|---|
| Hypothesis 1 | Profile of Mood States, Bipolar (POMS-BI) | ANOVA, ANCOVA |
| Hypothesis 2a<br>2b | Dean Alienation Scale (DAS)<br>University Alienation Scale (UAS) | ANOVA, ANCOVA<br>Post hoc tests |
| Hypothesis 3 | Attitude Toward Integration Questionnaire (ATIQ) | Factor Analysis<br>ANOVA, ANCOVA<br>Post hoc tests |
| Hypothesis 4 | Behavioral Interaction with the Opposite Race Questionnaire (BIORQ) | ANOVA, ANCOVA<br>Post hoc tests |
| Hypothesis 5 | POMS-BI, DAS, UAS | ANOVA, ANCOVA<br>Post hoc tests |
| Hypothesis 6 | ATIQ, BIORQ | ANOVA, ANCOVA |
| Demographic Variables | Background Questionnaire | Chi square<br>t tests<br>ANOVA |

and on the demographic characteristics. Third, statistical comparisons are reported for the main demographic characteristics. These statistical analyses include the following three kinds of comparisons: among the four main subgroups, between the minority and majority groups and between the two sampled racial groups. Following these sections, each hypothesis presented in Chapter I is restated and analysis of variance and covariance results are reported for each. Finally, a summary of the findings is presented.

## Summary Descriptive Statistics for the Total Sample on the Dependent Variables

The results presented in Table 3 are the number of valid observations (N), mean scores, standard deviations and ranges for each of the dependent variables. Seven different dependent variables were measured and the largest group of respondents was for the variable, "behavioral interaction with a different race student." On this variable the range of possible scores was from 0 to 5, where 0 indicated no interaction with a different race student, and 5 indicated a high degree of intimate interaction. The mean score for the total sample was 1.1, suggesting that very little interaction occurred between students of different races in the settings of interest in this study.

Alienation was measured in two ways, in society (Dean, 1961) and in the university (Burbach, 1972). On these measures, the possible range for scores was between 0 (lowest alienation) and 96 (highest

Table 3. Means, Standard Deviations, Number of Observations and Minimum and Maximum Scores, for the Total Sample for the Dependent Variables

| Dependent Variable | N | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Behavioral Interaction with a Different Race Student | 289 | 1.1 | 0.63 | 0.04 | 2.76 |
| Alienation in Society | 281 | 48.8 | 10.9 | 14.00 | 78.00 |
| Alienation in the University | 278 | 53.4 | 12.9 | 21.00 | 91.00 |
| Social Isolation in Society | 286 | 17.0 | 4.8 | 3.00 | 29.00 |
| Social Isolation in the University | 285 | 15.6 | 3.7 | 6.00 | 24.00 |
| Depression | 287 | 49.4 | 10.3 | 20.00 | 73.00 |
| Attitude Toward Integration | 275 | 20.1 | 8.5 | 0.00 | 52.00 |

alienation). Normative reports of scores between 30.2 and 36.6 (SD = 13.5) were reported on the measure of societal alienation. No normative data were reported on the measure of university alienation. The respondents in this study had scores that ranged between 14 and 78 for alienation in society and between 21 and 91 for alienation in the university. The mean scores of respondents on alienation in society were 48.8 and for alienation in the university, 53.4. In the total sample, respondents averaged scores of 15.6 on social isolation in the university and 17.0 on social isolation in society. On this measure, the possible range of scores was between 0 (lowest degree of social isolation) and 36 (highest degree of social isolation).

From the normative data available on the instrument used to measure depression (Lorr & McNair, 1982) the results shown in Table 3 revealed that this sample of students experienced normal mood states and were neither depressed nor elated. The average sampled subject scored 49.4 on depression. In the normative group for this instrument a score of 50 was the mean for subjects who were of normal mood.

Attitude toward integration was determined by subjects' responses to 15 items of a scale in which attitude scores ranged from 0 (strongly oppose integration) to 60 (strongly support integration). The mean scores of subjects in the total sample on this variable was 20.1, suggesting that these students were not in strong support of integration. This is consistent with their amount of interaction with the opposite race.

## Summary Descriptive Statistics for the Four Subgroups on the Dependent Variables

In this section the means, standard deviations and number of valid observations for the four subgroups are presented. For the sake of clarity, in the present study the black students who attended the predominantly white university will be called minority blacks; those in the predominantly black university, majority blacks. Also, minority whites were the subjects who attended the predominantly black university; majority whites were white students enrolled in the predominantly white university.

Table 4 presents the descriptive statistics for each of the four subgroups on the dependent variables. On the measure, alienation in the university, the mean scores for the four groups ranged from 51.9 (majority blacks) to 56.9 (minority blacks). On the measure, alienation in society, the scores ranged from 44.7 (majority blacks) to 51.7 (minority whites).

On the variable social isolation in the university, students reported mean scores that ranged from 15.2 (majority blacks) to 16.1 (minority blacks), which is consistent with the pattern of scores depicted on the measure for alienation. The mean scores of students ranged from 15.9 (minority blacks) to 18.1 (majority whites) on the measure, social isolation in society.

On the measure for depression, the mean scores for the subgroup respondents ranged between 49.2 and 51.1. These scores were within the normal range for mood on the instrument used to measure depression

Table 4. Means, Standard Deviations, Number of Observations and Minimum and Maximum Scores for the Four Subgroups for the Dependent Variables

| Dependent Variable | Minority Black[a] | | | | | Majority Black[b] | | | | | Majority White[c] | | | | | Minority White[d] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | Mean | SD | Min | Max | N | Mean | SD | Min | Max | N | Mean | SD | Min | Max | N | Mean | SD | Min | Max |
| Alienation in the University | 48 | 56.9 | 10.9 | 36.0 | 80.0 | 80 | 51.9 | 13.3 | 25.0 | 91.0 | 86 | 52.9 | 13.2 | 25.0 | 84.0 | 64 | 53.3 | 13.0 | 21.0 | 88.0 |
| Alienation in Society | 45 | 48.2 | 11.6 | 14.0 | 70.0 | 86 | 44.7 | 10.7 | 23.0 | 72.0 | 86 | 51.1 | 9.9 | 26.0 | 78.0 | 64 | 51.7 | 10.4 | 15.0 | 71.0 |
| Depression | 48 | 50.1 | 9.3 | 25.0 | 73.0 | 90 | 49.2 | 10.0 | 20.0 | 73.0 | 85 | 49.2 | 10.5 | 20.0 | 73.0 | 64 | 49.5 | 11.3 | 25.0 | 71.0 |
| Social Isolation in the University | 48 | 16.1 | 3.1 | 10.0 | 24.0 | 86 | 15.2 | 3.6 | 7.0 | 24.0 | 86 | 15.4 | 4.0 | 6.0 | 23.0 | 65 | 15.7 | 3.9 | 8.0 | 23.0 |
| Social Isolation in Society | 47 | 15.9 | 4.3 | 6.0 | 25.0 | 88 | 16.0 | 5.0 | 3.0 | 26.0 | 86 | 18.1 | 4.3 | 8.0 | 28.0 | 65 | 17.8 | 5.1 | 3.0 | 29.0 |
| Attitude toward Integration | 46 | 20.5 | 8.2 | 4.0 | 52.0 | 85 | 23.0 | 9.5 | 0.0 | 52.0 | 82 | 18.8 | 6.7 | 1.0 | 32.0 | 62 | 17.5 | 8.1 | 4.0 | 40.0 |
| Behavioral Interaction with the Opposite Sex | 48 | 1.6 | 0.6 | 0.6 | 2.7 | 90 | 0.95 | 0.7 | 0.8 | 2.3 | 86 | 1.0 | 0.5 | .04 | 2.4 | 65 | 1.0 | 0.6 | 0.9 | 2.8 |

[a]Minority black--black students from predominantly white univ. [b]Majority black--black students from predominantly black univ.

[c]Majority white--white students from predominantly white univ. [d]Minority white--white students from predominantly black univ.

(Lorr & McNair, 1982). This finding was in contrast to research that has described black students at predominantly white institutions as depressed when compared to their white counterparts or other blacks in predominantly black schools (Friday, 1984). In the present study, results for each of the subgroups suggested that overall these students were not depressed.

The two final measures, as shown in Table 4, were attitude toward integration and behavioral interaction with the opposite race. Scores on attitude toward integration ranged from 17.5 (minority whites) to 23.0 (majority blacks). As previously noted, the possible range of scores on this variable was from 0 to 60. Scores on the measure for behavioral interaction with a different race student ranged from 0.95 (majority blacks) to 1.6 (minority blacks). As previously described, the possible range of scores on this variable was from 0.0 to 5.0. Behaviorally, minority blacks were the group most likely to interact with a student of a different race (Mean = 1.6). However, as reported earlier, overall scores on this variable were low.

## Summary Descriptive Statistics for the Four Subgroups on the Demographic Variables

Two hundred and eighty-nine students from a predominantly black and a predominantly white university were participants in this study. As Table 5 indicates, 47.8% of the total subject pool were black, and 52.2% of the subjects were white. Of the entire sample, 16.6%

Table 5. Number of Students by Race by Type of University

| Race of Student | Type of University: Predominantly White | Predominantly Black | Predominantly White | Predominantly Black | Total Row % |
|---|---|---|---|---|---|
| Black | n=48 | n=90 | | | 138<br>47.8 |
| White | | | n=86 | n=65 | 151<br>52.2 |
| Total<br>Col. % | 48<br>16.6 | 90<br>31.1 | 86<br>29.8 | 65<br>22.5 | 289<br>100.0 |

were black students who attended the predominantly white institution and 22.5% were white students who attended the predominantly black institution. For present purposes, these two groups constitute the minority students. The majority group, also consisting of blacks and whites, was a somewhat larger group. Of the entire sample, 29.8% were white students who attended a predominantly white university; 31.1% were blacks who attended a predominantly black university. Numerically, the majority students consisted of 176 students (60.9%); the minority students 113 (39.1%).

The frequency and percent of minority and majority group students by sex are shown in Table 6. The total sample was 59.9% female and 40.1% male. The largest percent of females (31.8%) in the entire sample were majority blacks, while the largest percent of males (37.1%) were from the majority white group. Within the four individual subgroups, the smallest percent of males (27.7%) were minority blacks and the smallest percent of females (50.0%) were majority whites.

Nearly 90% of the sample was within the age category 18-25 and the remainder were 26 or older. Table 7 shows that all minority blacks were between the ages of 18 and 25. The subgroup with the largest number and percent of students (50.0%) older than 25 was the minority white group. Majority blacks made up 31.8% of the 18-25 year-old category and were the largest subgroup in that age category.

The marital status of the sample is also shown in Table 7. This table reveals that 84.6% of the total sample were single and

Table 6. Cross Tabulation of Minority/Majority Status and Race of Students by Sex of Students

| Sex | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | Total Row % |
|---|---|---|---|---|---|
| Female | 35 | 55 | 43 | 40 | 173 |
| Row % | 20.2 | 31.8 | 24.9 | 23.1 | 59.9 |
| Col % | 72.9 | 61.1 | 50.0 | 61.5 | |
| Male | 13 | 35 | 43 | 25 | 116 |
| Row % | 11.2 | 30.2 | 37.1 | 21.6 | 40.1 |
| Col % | 27.7 | 38.9 | 50.0 | 38.5 | |
| Total | 48 | 90 | 86 | 65 | 289 |
| Col % | 16.6 | 31.1 | 29.8 | 22.5 | 100.0 |

[a]Minority black--black students from predominantly white university.

[b]Majority black--black students from predominantly black university.

[c]Majority white--white students from predominantly white university.

[d]Minority white--white students from predominantly black university.

Table 7. Cross Tabulation of Minority/Majority Status and Race of Students by Age and Marital Status

| Age/Marital Status | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | Total Row % |
|---|---|---|---|---|---|
| | | | Age | | |
| 18-25 | 48 | 82 | 78 | 49 | 258 |
| Row % | 18.6 | 31.8 | 30.2 | 19.1 | 89.6 |
| 26 or older | 0 | 7 | 8 | 15 | 30 |
| Row % | 0.0 | 23.3 | 26.6 | 50.0 | 10.4 |
| Total | 48 | 89 | 86 | 64 | 287 |
| Col % | 16.7 | 31.0 | 30.0 | 22.3 | 100.0 |
| | | | Marital Status | | |
| Single | 48 | 84 | 70 | 39 | 241 |
| | | | | | 84.6 |
| Married | | 4 | 7 | 23 | 34 |
| | | | | | 11.9 |
| Total | 48 | 88 | 77 | 62 | 275 |
| Col % | 17.5 | 32.0 | 28.0 | 22.5 | 100.0 |

[a]Minority black--black students from predominantly white university.

[b]Majority black--black students from predominantly black university.

[c]Majority white--white students from predominantly white university.

[d]Minority white--white students from predominantly black university.

11.9% were married. Consistent with the age data, minority blacks were all single and the largest percentage of married students were minority whites.

The distribution of the sample by place of residence while attending school is depicted in Table 8. Within the two minority subgroups 83.3% of the blacks resided on campus but only 7.7% of the whites lived on campus. There was a fairly even division between on and off campus residence among majority students; slightly more than 51% of majority blacks and majority whites resided in on-campus housing.

The number of students who transferred from other institutions to their current university is also shown in Table 8. Seventy-seven (26.6%) of the sampled students were transfers. The minority whites were the largest group of transfer students. Sixty-three percent of this group transferred from other institutions. Only 10.4% of the 48 minority blacks, 14.0% of the majority whites, and 21.1% of the majority blacks were transfer students.

The educational attainments of the subjects' mothers are depicted in Table 9. Within the total sample, the largest percent (26.8%) of mothers were high school graduates. However, within the subgroups there was a marked difference in the mothers' educational attainment. Mothers of black subjects in this sample attained higher levels of education than did mothers of white subjects. For example, 41.7% of minority blacks and 32.6% of majority blacks had mothers who had completed college or some graduate-level degree. In contrast,

Table 8. Frequency Distribution of Minority/Majority Status and Race of Students by College Residence and Transfer Status

| Residence/ Transfer Status | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | Total Col % |
|---|---|---|---|---|---|
| | | College Residence | | | |
| On Campus | 40 | 46 | 44 | 5 | 135 |
| Row % | 29.6 | 34.1 | 32.6 | 3.7 | 47.0 |
| Col % | 83.3 | 51.7 | 51.8 | 7.7 | |
| Off Campus | 8 | 43 | 41 | 60 | 152 |
| Row % | 5.3 | 28.3 | 26.9 | 39.5 | 53.0 |
| Col % | 6.7 | 48.3 | 48.2 | 92.3 | |
| Total | 48 | 89 | 85 | 65 | 287 |
| Col % | 16.7 | 31.0 | 29.6 | 22.6 | 100.0 |
| | | Transfer Status | | | |
| Yes | 5 | 19 | 12 | 41 | 77 |
| Row % | 6.5 | 24.7 | 15.6 | 53.2 | 26.6 |
| Col % | 10.4 | 21.1 | 14.0 | 63.1 | |
| No | 43 | 71 | 74 | 24 | 212 |
| Row % | 20.3 | 33.5 | 34.9 | 11.3 | 73.4 |
| Col % | 89.6 | 78.9 | 86.0 | 36.9 | |
| Total | 48 | 90 | 86 | 65 | 289 |
| Col % | 16.6 | 31.1 | 29.8 | 22.5 | 100.0 |

[a]Minority black--black students from predominantly white university.

[b]Majority black--black students from predominantly black university.

[c]Majority white--white students from predominantly white university.

[d]Minority white--white students from predominantly black university.

Table 9. Cross Tabulation of Minority/Majority Status and Race of Students by Mothers' and Fathers' Educational Level

| Educational Level | Mothers' Education | | | | | Fathers' Education | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | Total Row % | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | Total Row % |
| 1-8 | 3 | 6 | 2 | 4 | 15 | 2 | 11 | 3 | 6 | 22 |
| Row % | 20.0 | 40.0 | 13.3 | 26.7 | 5.2 | 9.1 | 50.0 | 13.6 | 27.3 | 8.0 |
| Col % | 6.3 | 6.7 | 2.3 | 6.3 | | 4.2 | 13.9 | 3.5 | 9.5 | |
| Some High School | 1 | 5 | 6 | 5 | 17 | 2 | 8 | 3 | 7 | 20 |
| Row % | 5.9 | 29.4 | 35.3 | 29.4 | 5.9 | 10.0 | 40.0 | 15.0 | 35.0 | 7.2 |
| Col % | 2.1 | 5.6 | 7.0 | 7.8 | | 4.2 | 10.1 | 3.5 | 11.1 | |
| High School or GED | 13 | 19 | 18 | 27 | 77 | 15 | 14 | 13 | 16 | 58 |
| Row % | 16.9 | 24.7 | 23.4 | 35.1 | 26.8 | 25.9 | 24.1 | 22.4 | 27.6 | 21.0 |
| Col % | 27.1 | 21.3 | 20.9 | 42.2 | | 31.3 | 17.7 | 15.1 | 25.4 | |
| Trade/ Voc. School | 1 | 3 | 7 | 7 | 18 | 3 | 10 | 7 | 10 | 30 |
| Row % | 5.6 | 16.7 | 38.9 | 38.9 | 6.3 | 10.0 | 33.3 | 23.3 | 33.3 | 10.9 |
| Col % | 2.1 | 3.4 | 8.1 | 10.9 | | 6.3 | 12.7 | 8.1 | 15.9 | |
| Some College | 8 | 20 | 21 | 8 | 57 | 8 | 8 | 14 | 8 | 38 |
| Row % | 14.0 | 35.1 | 36.8 | 14.0 | 19.9 | 21.1 | 21.1 | 36.8 | 21.1 | 13.8 |
| Col % | 16.7 | 22.5 | 24.4 | 12.5 | | 16.7 | 10.1 | 16.3 | 12.7 | |

Table 9 (continued)

| Educational Level | Mothers' Education: Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | Total Row % | Fathers' Education: Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | Total Row % |
|---|---|---|---|---|---|---|---|---|---|---|
| Two-Yr Degree | 2 | 7 | 9 | 4 | 22 | 1 | 4 | 7 | 4 | 16 |
| Row % | 9.1 | 31.8 | 40.9 | 18.2 | 7.7 | 6.3 | 25.0 | 43.8 | 25.0 | 5.8 |
| Col % | 4.2 | 7.9 | 10.5 | 6.3 | | 2.1 | 5.1 | 8.1 | 6.3 | |
| Four-Yr Degree | 12 | 16 | 13 | 3 | 44 | 8 | 16 | 15 | 9 | 48 |
| Row % | 27.3 | 36.4 | 29.5 | 6.8 | 15.3 | 16.7 | 33.3 | 31.3 | 18.8 | 17.4 |
| Col % | 25.0 | 18.0 | 15.1 | 4.7 | | 16.7 | 20.3 | 17.4 | 14.3 | |
| Grad/ Professional Degree | 8 | 13 | 10 | 6 | 37 | 9 | 8 | 24 | 3 | 44 |
| Row % | 21.6 | 35.1 | 27.0 | 16.2 | 12.9 | 20.5 | 18.2 | 54.5 | 6.8 | 15.9 |
| Col % | 16.7 | 14.6 | 11.6 | 9.4 | | 18.8 | 10.1 | 27.9 | 4.8 | |
| Total | 48 | 89 | 86 | 64 | 287 | 48 | 79 | 86 | 63 | 276 |
| Col % | 16.7 | 31.0 | 30.0 | 22.3 | 100.0 | 17.4 | 28.6 | 31.2 | 22.8 | 100.0 |

[a]Minority black--black students from predominantly white university.

[b]Majority black--black students from predominantly black university.

[c]Majority white--white students from predominantly white university.

[d]Minority white--white students from predominantly black university.

only 26.7% of the majority white and 14.1% of the minority white mothers had educational achievements at this same level.

Consistent with the results on the educational attainment of mothers, the largest number of fathers of sampled subjects were high school graduates. Table 9 shows that 21.0% of all the subjects had fathers who were high school graduates; 17.4% were college graduates. However, unlike the mothers, the largest percent of fathers who completed college or a graduate degree were from the majority white group. Within the majority white sample, 45.3% of the fathers graduated from college or graduate school, but only 35.5% of the black minority fathers, 30.4% of the black majority fathers and 19.1% of the white minority fathers attained the same educational standing.

The reported parental income for the sample is shown in Table 10. The largest percent of the total sample were from families where annual income was reported to be between $30,000 and $39,999. However, there was a marked contrast between income levels within the individual subgroups, particularly in the higher-income brackets. While 27.6% of minority blacks, 26.6% of minority whites and 28.2% of majority blacks reported parental incomes of $40,000 or higher, 54.4% of majority whites reported parental incomes at this level. These results are somewhat inconsistent with educational attainment. For example, 35.4% of minority black fathers and 41.7% of minority black mothers were at least college graduates while only 19.1% of minority white fathers and 14.1% of the minority white mothers were,

Table 10. Cross Tabulation of Minority/Majority Status and Race of Students by Parents' Income and ACT Score

| Parents' Income/ ACT Score | Minority Black [a] | Majority Black [b] | Majority White [c] | Minority White [d] | Total Row % |
|---|---|---|---|---|---|
| | | | Parents' Income | | |
| Less than 10,000 | 5 | 11 | | 4 | 20 |
| Col % | 10.6 | 12.9 | | 6.3 | 7.2 |
| 10,001-19,999 | 11 | 17 | 10 | 6 | 44 |
| Col % | 23.4 | 20.0 | 12.3 | 9.4 | 15.9 |
| 20,000-29,999 | 6 | 16 | 10 | 17 | 49 |
| Col % | 12.8 | 18.8 | 12.3 | 26.6 | 17.7 |
| 30,000-39,999 | 12 | 17 | 17 | 20 | 66 |
| Col % | 25.5 | 20.0 | 21.0 | 31.3 | 23.8 |
| 40,000-49,999 | 5 | 13 | 19 | 9 | 46 |
| Col % | 10.6 | 15.3 | 23.5 | 14.1 | 16.6 |
| 50,000 or greater | 8 | 11 | 25 | 8 | 52 |
| Col % | 17.0 | 12.9 | 30.9 | 12.5 | 18.8 |
| Total | 47 | 85 | 81 | 64 | 277 |
| Col % | 17.0 | 30.7 | 29.2 | 23.1 | 100.0 |
| | | | ACT Score | | |
| 1-16 | 8 | 36 | 3 | 11 | 58 |
| Row % | 13.8 | 62.1 | 5.2 | 18.9 | 26.1 |
| 17-19 | 12 | 19 | 11 | 10 | 52 |
| Row % | 23.1 | 36.5 | 21.2 | 19.2 | 23.4 |
| 20-23 | 14 | 7 | 31 | 11 | 63 |
| Row % | 22.2 | 11.1 | 49.2 | 17.5 | 28.4 |

Table 10 (continued)

| Parents' Income/ ACT Score | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | Total Row % |
|---|---|---|---|---|---|
| 24 and above | 7 | 3 | 30 | 9 | 49 |
| Row % | 14.3 | 6.1 | 61.2 | 18.4 | 22.1 |
| Total | 41 | 65 | 75 | 41 | 222 |
| Col % | 18.5 | 29.5 | 33.8 | 18.5 | 100.0 |

[a]Minority black--black students in predominantly white university.

[b]Majority black--black students in predominantly black university.

[c]Majority white--white students in predominantly white university.

[d]Minority white--white students in predominantly black university.

at minimum, college graudates. However, the percent of these two subgroups with reported incomes of $40,000 or above is roughly the same. A similar discrepancy can be noted from Table 10 with the income level of the other subgroups.

The pre-college academic performance of 222 students (76% of the total sample) was assessed by obtaining composite scores on the ACT test. Table 10 shows that the largest percent of the sample obtained scores between 20 and 23 on the ACT. The results, however, also showed a wide discrepancy between the subgroups on these scores. While only 49 (22.1%) of the 222 students who reported ACT scores made a 24 or higher, 62.1% of the 58 students who scored between 1 and 16 were majority blacks. Many (67) students did not respond to this item. Primarily, non-respondents were minority white and majority black students enrolled in the predominantly black university.

The high school grade point averages (GPA) of sampled students are shown in Table 11. The modal GPA for all students was a B, which numerically was between a 3.00 and 3.49. The largest percent (31.3%) of the minority black group had GPAs between 3.50 and 3.75 (B+). The largest percent (31.0%) of the majority white group had GPAs between 3.00 and 3.49; of minority whites (35.4%) between 3.00 and 3.49.

College GPAs were somewhat lower than those reported by the same students in high school. The modal college GPA (Table 11) was approximately one-half of a letter grade lower than the corersponding high school GPA for the total sample with 40.2% reporting grades between 2.75 and 2.99 (C+).

Table 11. Cross Tabulation of Minority/Majority Status and Race of Students by High School and College Grade Point Average

| Grade Point Average | High School | | | | | College | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | Total Row % | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | Total Row % |
| A | 14 | 6 | 16 | 9 | 45 | | | 3 | 2 | 5 |
| Row % | 31.1 | 13.3 | 35.6 | 20.0 | 15.7 | | | 60.3 | 40.0 | 1.9 |
| Col % | 29.2 | 6.7 | 19.0 | 13.8 | | | | 3.9 | 3.4 | |
| B+ | 15 | 14 | 23 | 14 | 66 | 2 | 3 | 3 | 11 | 19 |
| Row % | 22.7 | 21.2 | 34.8 | 21.2 | 23.1 | 10.5 | 15.8 | 15.8 | 57.9 | 7.3 |
| Col % | 31.3 | 15.7 | 27.4 | 21.5 | | 4.3 | 3.8 | 3.9 | 18.6 | |
| B | 14 | 25 | 26 | 23 | 88 | 5 | 20 | 25 | 19 | 69 |
| Row % | 15.9 | 28.4 | 29.5 | 26.1 | 30.8 | 7.2 | 29.0 | 36.2 | 27.5 | 26.4 |
| Col % | 29.2 | 28.1 | 31.0 | 35.4 | | 10.9 | 25.0 | 32.9 | 32.2 | |
| C+ | 5 | 37 | 15 | 16 | 73 | 24 | 36 | 24 | 21 | 105 |
| Row % | 6.8 | 50.7 | 20.5 | 21.9 | 25.5 | 22.9 | 34.3 | 22.9 | 20.0 | 40.2 |
| Col % | 10.4 | 41.6 | 17.9 | 24.6 | | 52.2 | 45.0 | 31.6 | 35.6 | |
| C | | 7 | 3 | 3 | 13 | 15 | 20 | 18 | 4 | 57 |
| Row % | | 53.8 | 23.1 | 23.1 | 4.5 | 26.3 | 35.1 | 31.6 | 7.0 | 21.8 |
| Col % | | 7.9 | 3.6 | 4.6 | | 32.6 | 25.0 | 23.7 | 6.8 | |

Table 11 (continued)

| Grade Point Average | High School | | | | | College | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | Total Row % | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | Total Row % |
| D or Less | | | 1 | | 1 | | 1 | 3 | 2 | 6 |
| Row % | | | 100.0 | | 0.3 | | 16.7 | 40.0 | 33.3 | 2.3 |
| Col % | | | 1.2 | | | | 1.3 | 3.9 | 3.4 | |
| Total | 48 | 89 | 84 | 65 | 286 | 46 | 80 | 76 | 59 | 261 |
| Col % | 16.8 | 31.1 | 29.4 | 22.7 | 100.0 | 17.6 | 30.7 | 29.1 | 22.6 | 100.0 |

[a]Minority black--black students in the predominantly white university.

[b]Majority black--black students in the predominantly black university.

[c]Majority white--white students in the predominantly white university.

[d]Minority white--white students in the predominantly black university.

Within the four subgroups, 52.2% of the minority blacks, 35.6% of minority whites and 45.0% of majority blacks reported college averages between 2.75 and 2.99. The college GPA reported by the largest percent of majority whites was between 3.00 and 3.49 (32.9%). Averages between 2.75 and 2.99, similar to the other three subgroups, were reported by 31.6% of this group. Minority black students tended to report college GPAs one letter grade lower than those reported in high school. Minority white students declined about one-half of a letter grade from their high school GPA. Majority whites and majority blacks tended to report college GPAs consistent with those reported in high school. Only 1.9% of the total sample reported college GPAs between 3.75 and 4.00; 2.3% reported GPAs of 1.99 or lower.

## Statistical Analysis of the Demographic Characteristics

Statistical comparisons of the demographic characteristics among the subgroups in this study revealed some notable similarities and some statistically significant differences between groups. In this section the results of these statistical analyses will be reported for each of the demographic variables as follows: (1) differences among the four subgroups (minority blacks, majority blacks, majority whites and minority whites); (2) differences between two student groups, i.e. minority (minority blacks and minority whites) and majority students (majority blacks, majority whites); and (3) differences between blacks and whites independent of minority or majority status.

As can be seen in Table 12, there were no significant differences in the gender composition of the four subgroups ($\chi^2$ = 7.02, $p$>.05). Comparisons between minority students and majority students shown in Table 13 revealed a similar finding ($\chi^2$ = 2.84, $p$>.05). These data revealed, however, that there was a tendency for the minority black students and for minority students in general to be female.

As depicted in Table 14, the ANOVA revealed significant differences among the four subgroups (F = 9.86, $p$<.001) by age. Post hoc test results indicated that the mean age (24.5) of the minority whites was significantly different from the other three groups. Comparisons between minority and majority groups shown in Table 15 revealed that there were also differences between minority and majority students on this variable ($t$ = 2.64, $p$<.001).

The marital status of students is depicted in Table 16. These data showed that there was a significant difference among the four groups along this variable ($\chi^2$ = 47.5, $p$<.001). Data in Table 17 also support this finding and show that there were significant differences between minority and majority students. These analyses suggested that the primary group that accounted for the difference in marital status was the minority white group. Minority whites were more likely to be married than any other student group.

No significant differences were found between the college residence of minority and majority groups, as shown in Table 18. However, when these same data were further analyzed in the four subgroups shown in Table 19, significant differences were revealed

Table 12. Chi Square Table of Minority/Majority Status and Race of Students by Sex

| Sex | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | $\chi^2$ | p |
|---|---|---|---|---|---|---|
| Female | 35 | 55 | 43 | 40 | | |
| Male | 13 | 35 | 43 | 25 | 7.02 | >.05 |
| Total | 48 | 90 | 86 | 65 | | |

[a]Minority black--black students in the predominantly white university.
[b]Majority black--black students in the predominantly black university
[c]Majority white--white students in the predominantly white university.
[d]Minority white--white students in the predominantly black university.

Table 13. Chi Square Table of Minority or Majority Status by Sex

| Sex | Minority[a] | Majority[b] | $\chi^2$ | p |
|---|---|---|---|---|
| Female | 75 | 98 | | |
| Male | 38 | 78 | 2.84 | >.05 |
| Total | 113 | 176 | | |

[a]Minority--black students in the predominantly white university and white students in the predominantly black university.

[b]Majority--white students in the predominantly white university and black students in the predominantly black university.

Table 14. Analysis of Variance of Minority/Majority Status and Race by Age

| Source | df | Sum of Squares | F | p |
|---|---|---|---|---|
| Between | 3 | 609.132 | 9.86 | <.001 |
| Within | 283 | 5829.329 | | |
| Total | 286 | | | |

Table 15. *t* test Table of Minority/Majority Status by Age

| Status of Students | n | Mean Age | t | p |
|---|---|---|---|---|
| Minority | 112 | 22.7 | 2.64 | >.001 |
| Majority | 175 | 21.2 | | |

Table 16. Chi Square Table of Minority/Majority Status and Race of Students by Marital Status

| Marital Status | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | $\chi^2$ | p |
|---|---|---|---|---|---|---|
| Single | 48 | 84 | 70 | 39 | | |
| Married | 0 | 4 | 7 | 23 | 47.5 | >.001 |
| Total | 48 | 88 | 77 | 62 | | |

[a]Minority black--black students in the predominantly white university.

[b]Majority black--black students in the predominantly black university.

[c]Majority white--white students in the predominantly white university.

[d]Minority white--white students in the predominantly black university.

Table 17. Chi Square Table of Minority or Majority Status by Marital Status

| Marital Status | Minority[a] | Majority[b] | $\chi^2$ | p |
|---|---|---|---|---|
| Single | 87 | 154 | | |
| Married | 23 | 11 | 11.08 | <.001 |
| Total | 110 | 165 | | |

[a]Minority--black students in the predominantly white university and white students in the predominantly black university.

[b]Majority--white students in the predominantly white university and black students in the predominantly black university.

Table 18. Chi Square Table of Minority or Majority Status by College Residence

| College Residence | Minority[a] | Majority[b] | $\chi^2$ | p |
|---|---|---|---|---|
| On-campus | 45 | 90 | | |
| Off-campus | 68 | 84 | 3.4 | >.05 |
| Total | 113 | 174 | | |

[a]Minority--black students in the predominantly white university and white students in the predominantly black university.

[b]Majority--white students in the predominantly white university and black students in the predominantly black university.

Table 19. Chi Square Table of Minority/Majority Status and Race of Students by College Residence

| College Residence | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | $\chi^2$ | p |
|---|---|---|---|---|---|---|
| On-campus | 40 | 46 | 44 | 5 | | |
| Off-campus | 8 | 43 | 41 | 60 | 67.3 | <.001 |
| Total | 48 | 89 | 85 | 65 | | |

[a]Minority black--black students in the predominantly white university.

[b]Majority black--black students in the predominantly black university.

[c]Majority white--white students in the predominantly white university.

[d]Minority white--white students in the predominantly black university.

($\chi^2$ = 67.3, $p$<.001). Minority whites more often resided off campus, while their black counterparts usually resided on campus.

There was a significant difference among the four groups on whether they were transfer students, as revealed in Table 20. These differences also existed between minority and majority students, as shown in Table 21. These data appear to be consistent with the previous data on campus residence. Minority whites were the group most likely to live off-campus and were also more often transfer students. Minority blacks were more apt to be non-transfers and lived on-campus.

Statistically significant differences were found among the educational attainments of the students' mothers in the four group and the two group chi square analyses as shown in Tables 22 and 23. Comparisons of the educational attainments of fathers in Table 24 revealed that there were no significant differences when minority and majority student groups were compared. However, Table 25 shows significant differences among the four subgroups ($\chi^2$ = 24.4, $p$<.01). These data revealed that within the four subgroups majority white and minority black fathers tended to be the most highly educated. The majority black and minority white groups had the largest percent of fathers who did not complete high school.

As depicted in Table 26, there were statistically significant differences between the reported income levels of the two minority and majority groups. Chi square analysis of the four subgroups in Table 27 also revealed significant differences ($\chi^2$ = 28.91, $p$<.001).

Table 20. Chi Square Table of Minority/Majority Status and Race of Students by Transfer Status

| Transfer Student | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | $\chi^2$ | p |
|---|---|---|---|---|---|---|
| Yes | 5 | 19 | 12 | 41 | | |
| No | 43 | 71 | 74 | 24 | 59.1 | <.001 |
| Total | 48 | 90 | 86 | 65 | | |

[a]Minority black--black students in the predominantly white university.

[b]Majority black--black students in the predominantly black university.

[c]Majority white--white students in the predominantly white university.

[d]Minority white--white students in the predominantly black university.

Table 21. Chi Square Table of Minority or Majority Status by Transfer Status

| Transfer Student | Minority[a] | Majority[b] | $\chi^2$ | p |
|---|---|---|---|---|
| Yes | 46 | 31 | | |
| No | 67 | 145 | 17.61 | <.001 |
| Total | 113 | 176 | | |

[a]Minority--black students in the predominantly white university and white students in the predominantly black university.

[b]Majority--white students in the predominantly white university and black students in the predominantly black university.

Table 22. Chi Square Table of Minority/Majority Status and Race of Students by Mothers' Education

| Mothers' Education | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | $\chi^2$ | p |
|---|---|---|---|---|---|---|
| Not a high school graduate | 4 | 11 | 8 | 9 | | |
| High school graduate | 13 | 19 | 18 | 27 | | |
| | | | | | 2.14 | <.05 |
| Post high school, some college or vocational school | 11 | 30 | 37 | 19 | | |
| Four year degree or more | 20 | 29 | 23 | 9 | | |
| Total | 48 | 89 | 86 | 64 | | |

[a]Minority black--black students in the predominantly white university.

[b]Majority black--black students in the predominantly black university.

[c]Majority white--white students in the predominantly white university.

[d]Minority white--white students in the predominantly black university.

Table 23. Chi Square Table of Minority and Majority Status by Mothers' Education

| Mothers' Education | Minority[a] | Majority[b] | $\chi^2$ | p |
|---|---|---|---|---|
| Not a high school graduate | 13 | 19 | | |
| High school graduate | 40 | 37 | | |
| | | | 8.46 | <.05 |
| Post high school, some college or vocational school | 30 | 67 | | |
| Four year degree or more | 29 | 52 | | |
| Total | 112 | 175 | | |

[a]Minority--black students in the predominantly white university and white students in the predominantly black university.

[b]Majority--white students in the predominantly white university and black students in the predominantly black university.

Table 24. Chi Square Table of Minority or Majority Status by Fathers' Education

| Fathers' Education | Minority[a] | Majority[b] | $\chi^2$ | p |
|---|---|---|---|---|
| Not a high school graduate | 17 | 25 | | |
| High school graduate | 31 | 27 | | |
| | | | 7.12 | >.05 |
| Post high school, some college or vocational school | 34 | 50 | | |
| Four year degree or more | 29 | 63 | | |
| Total | 111 | 165 | | |

[a]Minority--black students in the predominantly white university and white students in the predominantly black university.

[b]Majority--white students in the predominantly white university and black students in the predominantly black university.

Table 25. Chi Square Table of Minority/Majority Status and Race of Students by Fathers' Education

| Fathers' Education | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | $\chi^2$ | p |
|---|---|---|---|---|---|---|
| Not a high school graduate | 4 | 19 | 6 | 13 | | |
| High school graduate | 15 | 14 | 13 | 16 | | |
| | | | | | 24.4 | <.01 |
| Post high school, some college or vocational school | 12 | 22 | 28 | 22 | | |
| Four year degree or more | 17 | 24 | 39 | 12 | | |
| Total | 48 | 79 | 86 | 63 | | |

[a]Minority black--black students in the predominantly white university.

[b]Majority black--black students in the predominantly black university.

[c]Majority white--white students in the predominantly white university.

[d]Minority white--white students in the predominantly black university.

Table 26. Chi Square Table of Minority or Majority Status by Parents' Income

| Parents' Income | Minority[a] | Majority[b] | $\chi^2$ | p |
|---|---|---|---|---|
| $19,999 or less | 26 | 38 | | |
| $20,000-39,999 | 55 | 60 | 6.54 | <.05 |
| $40,000 or more | 30 | 68 | | |
| Total | 111 | 166 | | |

[a]Minority--black students in the predominantly white university and white students in the predominantly black university.

[b]Majority--white students in the predominantly white university and black students in the predominantly black university.

Table 27. Chi Square Table of Minority/Majority Status and Race of Students by Parents' Income

| Parents' Income | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | $\chi^2$ | p |
|---|---|---|---|---|---|---|
| $19,999 or less | 16 | 28 | 10 | 10 | | |
| $20,000-39,999 | 18 | 33 | 27 | 37 | 28.91 | <.001 |
| $40,000 or more | 13 | 24 | 44 | 17 | | |
| Total | 47 | 85 | 81 | 64 | | |

[a]Minority black--black students in the predominantly white university.

[b]Majority black--black students in the predominantly black university.

[c]Majority white--white students in the predominantly white university.

[d]Minority white--white students in the predominantly black university.

These analyses showed that the majority white and minority white students were likely to come from middle or high income ($40,000 or more) families, whereas majority and minority black students were likely to come from low ($19,999 or less) or middle ($20,000-39,999) income families.

Chi square analysis of the high school grade point averages (GPA) of the four subgroups is reported in Table 28; for minority versus majority groups in Table 29. Significant differences were found between the GPAs of minority and majority students and among the four subgroups. Minority black and majority white students enrolled in the same predominantly white university were more likely to have higher GPAs than were their counterparts in the predominantly black university.

In contrast to the results for minority/majority comparisons on high school GPA, Table 30 revealed no significant differences between the college GPAs of minority and majority students. However, a different trend in the data shown in Table 31 was found for the four subgroups. Chi square analysis of these data revealed that there were significant differences ($\chi^2 = 29.50$, $p<.001$) in the four subgroups. These differences seem to occur because minority white and majority white students made higher college GPAs than their black counterparts.

Statistical analyses of the ACT scores of students show a similar pattern to college grade point average. While no differences were found between the minority and majority groups (Table 32),

Table 28. Chi Square Table of Minority/Majority Status and Race of Students by High School GPA

| High School GPA | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | $\chi^2$ | p |
|---|---|---|---|---|---|---|
| 4.00-3.50 | 29 | 20 | 39 | 23 | | |
| 3.49-3.00 | 14 | 25 | 26 | 23 | | |
| 2.99-2.00 | 5 | 44 | 18 | 19 | 33.33 | <.001 |
| Total | 48 | 89 | 83 | 65 | | |

[a]Minority black--black students in the predominantly white university.

[b]Majority black--black students in the predominantly black university.

[c]Majority white--white students in the predominantly white university.

[d]Minority white--white students in the predominantly black university.

Table 29. Chi Square Table of Minority or Majority Status by High School GPA

| High School GPA | Minority[a] | Majority[b] | $\chi^2$ | p |
|---|---|---|---|---|
| 4.00-3:50 | 52 | 59 | | |
| 3.49-3.00 | 37 | 51 | | |
| 2.99-2.00 | 24 | 62 | 7.56 | <.05 |
| Total | 113 | 172 | | |

[a]Minority--black students in the predominantly white university and white students in the predominantly black university.

[b]Majority--white students in the predominantly white university and black students in the predominantly black university.

Table 30. Chi Square Table of Minority or Majority Status by College GPA

| College GPA | Minority[a] | Majority[b] | $\chi^2$ | p |
|---|---|---|---|---|
| 4.00-3.50 | 15 | 9 | | |
| 3.49-3.00 | 24 | 45 | 5.82 | >.05 |
| 2.99-2.00 | 64 | 98 | | |
| Total | 103 | 152 | | |

[a]Minority--black students in the predominantly white university and white students in the predominantly black university.

[b]Majority--white students in the predominantly white university and black students in the predominantly black university.

Table 31. Chi Square Table of Minority/Majority Status and Race of Students by College GPA

| College GPA | Minority Black[a] | Majority Black[b] | Majority White[c] | Minority White[d] | $\chi^2$ | p |
|---|---|---|---|---|---|---|
| 4.00-3.50 | 2 | 3 | 6 | 13 | | |
| 3.49-3.00 | 5 | 20 | 25 | 19 | 29.5 | <.001 |
| 2.99-2.00 | 39 | 56 | 42 | 25 | | |
| Total | 46 | 79 | 73 | 57 | | |

[a]Minority black--black students in the predominantly white university.

[b]Majority black--black students in the predominantly black university.

[c]Majority white--white students in the predominantly white university

[d]Minority white--white students in the predominantly black university.

Table 32. t test Results for Minority/Majority Status by ACT Score

| Status of Students | n | Mean ACT | t | p |
|---|---|---|---|---|
| Minority[a] | 82 | 19.6 | -0.37 | >.05 |
| Majority[b] | 140 | 19.8 | | |

[a]Minority--black students in the predominantly white university and white students in the predominantly black university.

[b]Majority--white students in the predominantly white university and black students in the predominantly black university.

significant differences ($F = 29.17$, $p<.001$) were found among the four subgroups as shown in Table 33. The mean ACT scores of the four groups were as follows: 19.4 (minority blacks), 16.2 (majority blacks), 22.9 (majority whites), 19.7 (minority whites). Post hoc test results revealed that the mean ACT scores of the majority whites were significantly higher than the other groups and majority blacks reported scores that were significantly lower. As shown in Table 10 (page 85) many ACT scores were not reported, particularly by minority white and majority black students.

Statistical analyses of several of the demographic variables showed differences among the four sampled subgroups but not between minority or majority status students. This finding suggests that differences may exist between the demographic characteristics of the two racial groups (blacks and whites) sampled in this study. In the tables that follow, results will be reported only on the demographic characteristics where racial differences were found.

Significant differences were found between the age, marital status and transfer status of sampled students by race. The results are reported in Table 34 ($t = -2.92$, $p<.01$) for age, Table 35 ($\chi^2 = 20.36$, $p<.001$) for marital status and Table 35 ($\chi^2 = 10.68$, $p<.01$) for transfer status. These data show that white students were more likely than blacks to be older, married and transfer students. Chi square analysis of the college residence of students shown in Table 36 revealed that white students were also significantly more likely than black students to live off campus.

Table 33. Analysis of Variance of Minority/Majority Status and Race by ACT Score

| Source | df | Sum of Squares | F | p |
|---|---|---|---|---|
| Between | 3 | 1563.187 | 29.17 | <.001 |
| Within | 218 | 3893.498 | | |
| Total | 221 | 5456.685 | | |

Table 34. t test Table of Race of Students by Age

| Race | n | Mean | t | p |
|---|---|---|---|---|
| Black | 137 | 21.9 | -2.92 | <.01 |
| White | 150 | 22.6 | | |

Table 35. Chi Square Table of Race of Students by Marital Status and Transfer Status

| Marital Status/ Transfer Status | Race | | $\chi^2$ | p |
|---|---|---|---|---|
| | Black | White | | |
| | | Marital Status | | |
| Single | 132 | 109 | | |
| Married | 4 | 30 | 20.36 | <.001 |
| Total | 136 | 139 | | |
| | | Transfer Student | | |
| Yes | 24 | 53 | | |
| No | 114 | 98 | 10.68 | <.01 |
| Total | 138 | 151 | | |

Table 36. Chi Square Table of Race of Students by College Residence

| College Residence | Race | | $\chi^2$ | p |
|---|---|---|---|---|
| | Black | White | | |
| On-campus | 86 | 49 | | |
| Off-campus | 51 | 101 | 24.86 | <.001 |
| Total | 137 | 150 | | |

While no significant differences were found in the high school GPAs of blacks and whites, significant differences were found in the ACT scores and college GPA's as shown in Table 37 ($t$ = 7.17, $p$ <.001) and Table 38 ($\chi^2$ = 18.15, $p$<.001). These analyses show that blacks were more likely to have lower ACT scores and college GPAs than their white counterparts.

No significant differences were found in the educational attainments of subjects' parents by race. In contrast to the findings on educational attainments, Table 39 shows that significant differences were found between the parental incomes of black and white students ($\chi^2$ = 15.77, $p$<.001). While no differences were found in the educational attainments of the respondents' parents, white students were more likely to come from higher-income families. In this study, these data suggest that the educational attainments and incomes of parents operate differently for blacks and white. Black parents' educational achievements were statistically no different from whites. Blacks, however, were found to have significantly lower annual incomes.

The results of the chi square analyses on the demographic variables suggest that individual characteristics such as education, parental income or age may be operating on the dependent variables. A factor analysis of the demographic variables was conducted to determine if any of these individual characteristics operated together in any consistent manner. A three-factor solution was computed. These three factors were determined by factor loadings on the varimax rotated factor matrix for each of the demographic characteristics

Table 37. *t* test Table of Race of Students by ACT Score

| Race | ACT Score | | *t* | *p* |
|---|---|---|---|---|
| | *n* | Mean | | |
| Black | 106 | 17.5 | -7.17 | <.001 |
| White | 116 | 21.8 | | |

Table 38. Chi Square Table of Race of Students by College GPA

| College GPA | Race | | $\chi^2$ | *p* |
|---|---|---|---|---|
| | Black | White | | |
| 4.00-3.50 | 5 | 19 | | |
| 3.49-3.00 | 25 | 44 | 18.15 | <.001 |
| 2.99-2:00 | 95 | 67 | | |
| Total | 125 | 130 | | |

Table 39. Chi Square Table of Race of Students by Parents' Income

| Parents' Income | Race | | $\chi^2$ | p |
|---|---|---|---|---|
| | Black | White | | |
| $19,999 or less | 44 | 20 | | |
| $20,000-39,999 | 51 | 64 | 15.77 | <.001 |
| $40,000 or more | 37 | 61 | | |
| Total | 132 | 145 | | |

presented in Table 40. Variables with factor loadings of .40 or greater were included in each individual factor. The first factor which was labeled socioeconomic status consisted of three demographic variables--fathers' education, mothers' education and parental income. The second factor labeled age consisted of the demographic variables marital status, age and transfer status. The third factor, the ability factor, consisted of high school GPA, college GPA and the ACT scores of students.

Statistical analyses were performed on 11 different demographic variables in the present study. Analyses of these variables were made using three types of comparisons: between the two minority and majority groups, between the two racial groups (blacks and whites) and among the four student groups (minority blacks, minority whites, majority blacks, majority whites). Table 41 summarizes the findings for each of the statistical analyses performed on the dependent variables.

## Analysis of Variance and Covariance Results for the Study Hypotheses

In this section results of the hypotheses stated in Chapter I are presented. Analysis of variance results are reported to determine whether minority or majority student status by the university attended (predominantly black or predominantly white) seems to affect scores on the dependent variables. To control for the effects of the demographic variables described in the preceding section,

Table 40. Summary of Results of a Factor Analysis of the Demographic Characteristics

| Demographic Characteristic | Varimax Rotated Factor Loadings | | |
|---|---|---|---|
| | Factor I | Factor II | Factor III |
| Fathers' Education | .84 | -.09 | -.08 |
| Mothers' Education | .80 | -.12 | -.02 |
| Parents' Income | .73 | .03 | -.09 |
| Age | -.19 | .86 | -.01 |
| Marital Status | -.04 | .80 | -.03 |
| Transfer Status | -.06 | -.57 | -.03 |
| High School GPA | .02 | .10 | .82 |
| College GPA | -.03 | -.16 | .61 |
| ACT Score | .23 | .02 | -.67 |

Table 41. Summary of the Statistical Analyses for the Demographic Variables

| Demographic Variable | Statistical Procedure | Comparison | Results of Comparison | Significance Level |
|---|---|---|---|---|
| Sex | $\chi^2$ | Minority/Majority[a] | No significant difference | >.05 |
| Male or | $\chi^2$ | Min/Maj and Race[b] | No significant difference | >.05 |
| Female | $\chi^2$ | Race | No significant difference | >.05 |
| Age | *t* test | Minority/Majority | Minority > Majority | <.001 |
| Various ages | ANOVA | Min/Maj and Race | Minority whites > all other groups | <.001 |
| | *t* test | Race | Whites > Blacks | <.01 |
| Marital Status | $\chi^2$ | Minority/Majority | Minority more often married | <.001 |
| Single or | $\chi^2$ | Min/Maj and Race | Minority whites more often married | <.001 |
| Married | $\chi^2$ | Race | Whites more often married | <.001 |
| College Residence | $\chi^2$ | Minority/Majority | No significant difference | >.05 |
| On-campus or Off-campus | $\chi^2$ | Min/Maj and Race | Minority blacks more often on; minority whites more often off-campus | <.001 |
| | $\chi^2$ | Race | Whites more often off-campus | <.001 |
| Transfer Status | $\chi^2$ | Minority/Majority | Minority more often transfer | <.001 |
| Transfer or Non-transfer | $\chi^2$ | Min/Maj and Race | Minority whites more often transfer | <.001 |
| | $\chi^2$ | Race | Whites more often transfer | <.001 |
| Mothers' Educ. | $\chi^2$ | Minority/Majority | Majority more often college graduate | <.05 |
| Four categories of attainment | $\chi^2$ | Min/Maj and Race | Majority blacks more often college graduate | <.05<br><.05 |
| | $\chi^2$ | Race | No significant difference | <.05 |
| Fathers' Educ. | $\chi^2$ | Minority/Majority | No significant difference | <.05 |
| Four catetories of attainment | $\chi^2$ | Min/Maj and Race | Majority whites more often college graduates | <.01 |
| | $\chi^2$ | Race | No significant difference | >.05 |

Table 41 (continued)

| Demographic Variable | Statistical Procedure | Comparison | Results of Comparison | Significance Level |
|---|---|---|---|---|
| Parents' Income | $\chi^2$ | Minority/Majority | No significant difference | <.05 |
| Three income categories | $\chi^2$ | Min/Maj and Race | Majority whites more often higher income | <.001 |
| | $\chi^2$ | Race | Whites more often higher income | <.001 |
| High School GPA | $\chi^2$ | Minority/Majority | Minority more often high high GPA | <.05 |
| Three grade categories | $\chi^2$ | Min/Maj and Race | Minority blacks more often high GPA<br>Majority blacks more often low GPA | <.001 |
| | $\chi^2$ | Race | No significant difference | >.05 |
| College GPA | $\chi^2$ | Minority/Majority | No significant difference | >.05 |
| Three grade categories | $\chi^2$ | Min/Maj and Race | Minority and majority whites more often high GPA | <.001 |
| | $\chi^2$ | Race | Whites more often high GPA | <.001 |
| ACT Score Various levels | *t* test | Minority/Majority | No significant difference | >.05 |
| | ANOVA | Min/Maj and Race | Majority whites > other groups<br>Majority blacks > other groups | <.001 |
| | *t* test | Race | Whites > blacks | <.001 |

[a]Minority--black students in the predominantly white university and white students in the predominantly black university.
Majority--white students in the predominantly white university and black students in the predominantly black university.

[b]Minority black--black students in the predominantly white university.
Majority black--black students in the predominantly black university.
Majority white--white students in the predominantly white university.
Minority white--white students in the predominantly black university.

which were found to be significantly different between the subgroups, an analysis of covariance was also performed. Age, ability and socioeconomic status were the three factors included as covariates.

Hypothesis 1: Minority Students Will Report More Feelings of Depression than Majority Students

The results presented in Table 42 demonstrate that there were no statistically significant differences ($F$ = .667, $p$>.05) among the minority and majority students enrolled in the two sampled universities on the variable depression. The results from the ANCOVA ($F$ = 1.09, $p$>.05), which controlled for the demographic variables, were consistent with the ANOVA. The mean scores of the four student groups were as follows: 50.2 (minority blacks), 48.7 (majority blacks), 49.2 (majority whites), 49.5 (minority whites).

These results do not support the hypothesis that predicts that minority students will report more feelings of depression than majority students. In contrast, these results suggest that minority or majority status within a university had relatively little effect on the emotional or mood state of the sample subjects. Furthermore, none of the four groups of students scored in the depressed range on the instrument used to measure depression (Lorr & McNair, 1982). Instead, the results for all four groups were positive, which suggests that the minority students who attended the predominantly black and predominantly white universities and their majority counterparts were very similar to each other on this dependent variable.

Table 42. Analysis of Variance and Covariance Results for Depression

| Source | df | Sum of Squares | F | p |
|---|---|---|---|---|
| | | Without Covariates | | |
| Min/Maj[a] | 1 | 53.160 | .48 | >.05 |
| University | 1 | 24.540 | .22 | >.05 |
| Min/Maj by University | 1 | 0.667 | .60 | >.05 |
| | | With Covariates (Ability, Socioeconomic Status, Age) | | |
| Min/Maj | 1 | 107.074 | 0.97 | >.05 |
| University | 1 | 223.901 | 2.04 | >.05 |
| Min/Maj by University | 1 | 120.388 | 1.09 | >.05 |

[a]Min--Minority: Black students in the predominantly white university and white students in the predominantly black university.

Maj--Majority: White students in the predominantly white university and black students in the predominantly black university.

Hypothesis 2a: Minority Students will Report More Feelings of Social Isolation than Majority Students

Social isolation was measured in the following ways: in society and in the university. Analysis of variance and covariance results appear in Table 43 for the dependent variable social isolation in society. These ANOVA and ANCOVA results showed that there were no significant differences between the minority and majority students in this variable. There were also no differences among the responses of students enrolled in the predominantly black and the predominantly white university. However, as the ANOVA ($F$ = 17.13, $p<.001$) and ANCOVA ($F$ = 4.74, $p.<.05$) results showed, when comparisons were made among the four subgroups in the minority/majority by university analysis, there were significant differences.

The differences in the variance of the scores of students on this dependent variable do not support the hypothesis. Instead, post hoc test results based on the SAS, General Linear Model (GLM) procedure (Freund & Littell, 1981), suggest that minority or majority status is not sufficient to account for the differences that were found. The post hoc results on the four groups with the covariates (SES, Age, Ability) controlled revealed that the white majority students (Mean = 18.3) scored significantly higher than the minority blacks (Mean = 15.8), majority blacks (Mean = 16.3) but not minority white students (Mean = 17.1). White minority students (Mean = 17.1) were not significantly different than minority blacks (Mean = 15.8) or majority blacks (Mean = 16.3). Because high scores on this variable were an indication of a higher degree of social isolation, these

Table 43. Analysis of Variance and Covariance Results for Social Isolation in Society

| Source | df | Sum of Squares | F | p |
|---|---|---|---|---|
| | Without Covariates | | | |
| Min/Maj[a] | 1 | 5.831 | 0.26 | >.05 |
| University | 1 | 56.343 | 2.53 | >.05 |
| Min/Maj by University | 1 | 381.399 | 17.13 | <.001 |
| | With Covariates (Ability, Socioeconomic Status, Age) | | | |
| Min/Maj | 1 | 35.636 | 1.47 | >.05 |
| University | 1 | 36.334 | 1.55 | >.05 |
| Min/Maj by University | 1 | 111.243 | 4.74 | <.05 |

[a]Min--Minority: Black students in the predominantly white university and white students in the predominantly black university.

Maj--Majority: White students in the predominantly white university and black students in the predominantly black university.

results showed that white students enrolled in the predominantly white university felt more socially isolated than the two black student groups and the white minority students in this study.

The results for social isolation in the university are shown in Table 44. As these data show, there were no significant differences between minority and majority students or between students in the predominantly black and predominantly white universities. The ANOVA ($F$ = 0.73, $p$>.05) and ANCOVA ($F$ = 0.12, $p$>.05) results also revealed no significant differences when comparisons were made among the four student groups in the minority/majority status by university analysis. Consistent with the previous results, these findings do not support the hypothesis. Instead, minority students were found to be no different from majority students on the measure for social isolation in the university.

Hypothesis 2b: Minority Students Will Report More Feelings of Alienation than Majority Students

Alienation, like social isolation, was measured in two ways: in society and in the university. The results for alienation in society are shown in Table 45. Analysis of variance results showed that there were significant differences on this variable between the minority and majority group students and between students who attended the predominantly black university and those who attended the predominantly white university. The ANOVA ($F$ = 15.72, $p$<.001) also revealed significant differences when comparisons were made among the four student groups in the minority/majority by university

Table 44. Analysis of Variance and Covariance Results for Social Isolation in the University

| Source | df | Sum of Squares | F | p |
|---|---|---|---|---|
| | | Without Covariates | | |
| Min/Maj[a] | 1 | 22.506 | 1.60 | >.05 |
| University | 1 | 5.599 | 0.39 | >.05 |
| Min/Maj by University | 1 | 1.039 | 0.73 | >.05 |
| | | With Covariates (Ability, Socioeconomic Status, Age) | | |
| Min/Maj | 1 | 9.488 | 0.66 | >.05 |
| University | 1 | 4.268 | 0.30 | >.05 |
| Min/Maj by University | 1 | 3.143 | 0.22 | >.05 |

[a]Min--Minority: Black students in the predominantly white university and white students in the predominantly black university.

Maj--Majority: White students in the predominantly white university and black students in the predominantly black university.

Table 45. Analysis of Variance and Covariance Results for Alienation in Society

| Source | df | Sum of Squares | F | p |
|---|---|---|---|---|
| | Without Covariates | | | |
| Min/Maj[a] | 1 | 519.486 | 4.54 | <.05 |
| University | 1 | 537.319 | 4.70 | <.05 |
| Min/Maj by University | 1 | 1796.925 | 15.72 | <.001 |
| | With Covariates (Ability, Socioeconomic Status, Age) | | | |
| Min/Maj | 1 | 49.896 | 0.40 | >.05 |
| University | 1 | 334.325 | 2.71 | >.05 |
| Min/Maj by University | 1 | 769.072 | 6.24 | <.05 |

[a]Min--Minority: Black students in the predominantly white university and white students in the predominantly black university.

Maj--Majority: White students in the predominantly white university and black students in the predominantly black university.

analysis. However, when the demographic factors were controlled for in the ANCOVA, these results showed that there were no significant differences between minority and majority students or between students attending the two universities, suggesting that differences found in the ANOVA were heavily influenced by the covariates.

Consistent with the ANOVA results, significant differences ($F$ = 6.24, $p<.05$) were found when the four-group comparison was made in the minority/majority by university analysis. Post hoc test results based on the SAS, GLM procedure (Freund & Littell, 1981) of the four groups of students with covariates (SES, Age, Ability) controlled revealed that majority blacks (Mean = 44.5) had significantly lower scores than the majority (Mean = 51.2) and minority white (Mean = 51.2) groups, but they were not significantly different from their black minority (Mean = 48.0) counterparts. In contrast to the hypothesis, these results indicate that minority or majority status alone is not enough to explain the differences found between groups but suggest that race may be the more important mediating factor since black students enrolled in the predominantly black university were the least alienated group (Mean = 44.5) but their white majority counterparts (Mean = 51.2) felt the most highly alienated.

The results for alienation in the university are shown in Table 46. These results are similar to the results for social isolation in the university. No significant differences were found between the variances of the groups in the ANOVA ($F$ = 1.04, $p>.05$) or ANCOVA ($F$ = 1.04, $p>.05$) or ANCOVA ($F$ = 0.99, $p>.05$) on this dependent

Table 46. Analysis of Variance and Covariance Results for Alienation in the University

| Source | df | Sum of Squares | F | p |
|---|---|---|---|---|
| | | Without Covariates | | |
| Min/Maj[a] | 1 | 415.746 | 2.52 | >.05 |
| University | 1 | 291.909 | 1.77 | >.05 |
| Min/Maj by University | 1 | 172.321 | 1.04 | >.05 |
| | | With Covariates (Ability, Socioeconomic Status, Age) | | |
| Min/Maj | 1 | 153.335 | 0.91 | >.05 |
| University | 1 | 485.666 | 2.90 | >.05 |
| Min/Maj by University | 1 | 1.656 | 0.99 | >.05 |

[a]Min--Minority: Black students in the predominantly white university and white students in the predominantly black university.

Maj--Majority: White students in the predominantly white university and black students in the predominantly black university.

variable. These results do not support the hypothesis.

Hypothesis 3: Minority Students Will Report More Positive Attitudes Toward Integration and Racial Equality than Majority Students

Analysis of variance and covariance results for students' attitudes toward integration are shown in Table 47. These results show that there were significant differences on this variable between minority and majority students but not between students in the two types of universities. When the four student groups were compared in the minority/majority status by university analysis, significant differences were also found in both the ANOVA ($F$ = 12.23, $p<.001$) and ANCOVA ($F$ = 7.83, $p<.01$). Post hoc test results based on the SAS, GLM procedure (Freund & Littell, 1981) revealed that the minority blacks (Mean = 20.1) and majority blacks (Mean = 23.1) had attitudes toward integration scores that were significantly more positive than minority white students (Mean = 15.5). Majority blacks (Mean = 23.1) also had attitude scores that were significantly more positive than white majority students (Mean = 19.6). These results do not support the hypothesis but rather suggest that race may be the important mediating factor since black minority and black majority students had more positive attitudes toward integration than their white counterparts.

Hypothesis 4: Minority Students Will Report More Behavioral Interaction with Students of a Race Different from Their Own

Analysis of variance and covariance results for behavioral interaction with a different race are shown in Table 48. These

Table 47. Analysis of Variance and Covariance Results for Students' Attitude Toward Integration

| Source | df | Sum of Squares | F | p |
|---|---|---|---|---|
| | | Without Covariates | | |
| Min/Maj[a] | 1 | 317.134 | 4.69 | <.05 |
| University | 1 | 138.592 | 2.05 | >.05 |
| Min/Maj by University | 1 | 826.294 | 12.23 | <.001 |
| | | With Covariates (Ability, Socioeconomic Status, Age) | | |
| Min/Maj | 1 | 305.660 | 4.76 | <.05 |
| University | 1 | 5.359 | 0.83 | >.05 |
| Min/Maj by University | 1 | 503.373 | 7.83 | <.01 |

[a]Min--Minority: Black students in the predominantly white university and white students in the predominantly black university.

Maj--Majority: White students in the predominantly white university and black students in the predominantly black university.

Table 48. Analysis of Variance and Covariance Results for Behavioral Interaction with a Different Race Student

| Source | df | Sum of Squares | F | p |
|---|---|---|---|---|
| | Without Covariates | | | |
| Min/Maj[a] | 1 | 6.736 | 19.59 | <.001 |
| University | 1 | 5.453 | 15.86 | <.001 |
| Min/Maj by University | 1 | 3.961 | 11.52 | <.01 |
| | With Covariates (Ability, Socioeconomic Status, Age) | | | |
| Min/Maj | 1 | 11.010 | 32.80 | <.001 |
| University | 1 | 0.693 | 2.06 | >.05 |
| Min/Maj by University | 1 | 1.429 | 4.26 | <.05 |

[a]Min--Minority: Black students in the predominantly white university and white students in the predominantly black university.

Maj--Majority: White students in the predominantly white university and black students in the predominantly black university.

analyses both show that there were significant differences between the minority and majority students on this variable. The ANOVA results also indicate that there were significant differences between the minority and majority students on this variable. The ANOVA results also indicate that there were significant differences between students from the predominantly black and the predominantly white universities. However, no significant differences between students in the two universities were found in the ANCOVA ($F = 2.06$, $p > .05$) suggesting that these differences may be heavily influenced by the covariates. The ANOVA ($F = 11.52$, $p < .01$) and the ANCOVA ($F = 4.26$, $p < .05$) results both revealed that there were significant differences when comparisons were made among the four students groups in the minority/majority by university analysis. Post hoc test results based on the SAS, GLM procedure with the covariates (SES, Age, Ability) controlled revealed that minority black students (Mean = 1.69) reported significantly higher behavioral interaction means than majority blacks (Mean = 1.00), majority whites (Mean = 0.95) and minority whites (Mean = 1.26). Minority whites (Mean = 1.26) also reported significantly higher behavioral interaction means than majority whites (Mean = 0.95) and majority blacks (Mean = 1.00). Therefore, these results support the hypothesis that minority students will report more behavioral interaction with students of a different race from their own than majority students.

Hypothesis 5: The Differences between Minority and Majority Students Tested in Hypotheses 1 and 2a,b will Decrease as the Students Spend More Time in the University

Specifically, it was predicted that the greatest differences between minority and majority groups would be observed in students at lower-year levels. Four groups of year levels were compared: less than one year, one or two years, between two and three years, and greater than three years. This variable, called university tenure, was crossed with minority/majority status in a 2 by 4 ANOVA design. The results of a series of these analyses with and without covariates (SES, Age, Ability) for the dependent variables appear in Tables 49-53. The ANOVA and ANCOVA results show that there were no significant differences in the minority/majority status by university tenure analyses on the measures for depression ($F = 0.57$), $p>.05$), social isolation in the university ($F = 1.32$, $p>.05$), social isolation in society ($F = 0.78$, $p>.05$), or alienation in the university ($F = 0.57$, $p>.05$). However, on the measure for alienation in society a significant interaction effect was found in the ANCOVA ($F = 2.94$, $p<.05$) but not the ANOVA ($F = 0.57$, $p>.05$), suggesting that these differences may be heavily influenced by the covariates.

A post hoc test based on the SAS, GLM procedure (Freund & Littell, 1981) was performed on alienation in society for university tenure by minority/majority status in the university. The mean scores for the minority and majority status students' university tenure were as follows: minority (less than one year) 43.6; majority (less than one year) 53.1; minority (one to two years) 50.1; majority

Table 49. Analysis of Variance and Covariance Results for Depression

| Source | df | Sum of Squares | F | p |
|---|---|---|---|---|
| | | Without Covariates | | |
| Min/Maj[a] | 1 | 60.497 | 0.54 | >.05 |
| Univ. Tenure | 3 | 248.274 | 0.74 | >.05 |
| Min/Maj by Univ. Tenure | 2 | 192.242 | 0.57 | >.05 |
| | | With Covariates (Ability, Socioeconomic Status, Age) | | |
| Min/Maj | 1 | 88.885 | 0.80 | >.05 |
| Univ. Tenure | 3 | 209.488 | 0.63 | >.05 |
| Min/Maj by Univ. Tenure | 3 | 399.289 | 1.20 | >.05 |

[a]Min--Minority: Black students in the predominantly white university and white students in the predominantly black university.

Maj--Majority: White students in the predominantly white university and black students in the predominantly black university.

Table 50. Analysis of Variance and Covariance Results for Social Isolation in the University

| Source | df | Sum of Squares | F | p |
|---|---|---|---|---|
| | | Without Covariates | | |
| Min/Maj[a] | 1 | 26.602 | 1.93 | >.05 |
| Univ. Tenure | 3 | 107.745 | 2.60 | >.05 |
| Min/Maj by Univ. Tenure | 3 | 54.740 | 1.32 | >.05 |
| | | With Covariates (Ability, Socioeconomic Status, Age | | |
| Min/Maj | 1 | 8.324 | 0.57 | >.05 |
| Univ. Tenure | 3 | 41.580 | 0.95 | >.05 |
| Min/Maj by Univ. Tenure | 3 | 3.572 | 0.82 | >.05 |

[a]Min--Minority: Black students in the predominantly white university and white students in the predominantly black university.

Maj--Majority: White students in the predominantly white university and black students in the predominantly black university.

Table 51. Analysis of Variance and Covariance Results for Social Isolation in Society

| Source | df | Sum of Squares | F | p |
|---|---|---|---|---|
| | Without Covariates | | | |
| Min/Maj[a] | 1 | 5.076 | 0.22 | >.05 |
| Univ. Tenure | 3 | 184.721 | 2.67 | <.05 |
| Min/Maj by Univ. Tenure | 3 | 53.776 | 0.78 | >.05 |
| | With Covariates (Ability, Socioeconomic Status, Age) | | | |
| Min/Maj | 1 | 24.387 | 1.04 | >.05 |
| Univ. Tenure | 3 | 134.085 | 1.91 | >.05 |
| Min/Maj by Univ. Tenure | 3 | 173.566 | 2.47 | >.05 |

[a]Min--Minority: Black students in the predominantly white university and white students in the predominantly black university.

Maj--Majority: White students in the predominantly white university and black students in the predominantly black university.

Table 52. Analysis of Variance and Covariance Results for Alienation in the University

| Source | df | Sum of Squares | F | p |
|---|---|---|---|---|
| | Without Covariates | | | |
| Min/Maj[a] | 1 | 424.972 | 2.55 | >.05 |
| Univ. Tenure | 3 | 554.135 | 1.11 | >.05 |
| Min/Maj by Univ. Tenure | 3 | 301.332 | 0.60 | >.05 |
| | With Covariates (Ability, Socioeconomic Status, Age) | | | |
| Min/Maj | 1 | 180.419 | 1.05 | >.05 |
| Univ. Tenure | 3 | 297.914 | 0.57 | >.05 |
| Min/Maj by Univ. Tenure | 3 | 258.522 | 0.50 | >.05 |

[a]Min--Minority: Black students in the predominantly white university and white students in the predominantly black university.

Maj--Majority: White students in the predominantly white university and black students in the predominantly black university.

Table 53. Analysis of Variance and Covariance Results for Alienation in Society

| Source | df | Sum of Squares | F | p |
|---|---|---|---|---|
| | | Without Covariates | | |
| Min/Maj[a] | 1 | 451.668 | 3.77 | >.05 |
| Univ. Tenure | 3 | 758.062 | 2.11 | >.05 |
| Min/Maj by Univ. Tenure | 3 | 241.211 | 0.67 | >.05 |
| | | With Covariates (Ability, Socioeconomic Status, Age) | | |
| Min/Maj | 1 | 82.954 | 0.66 | >.05 |
| Univ. Tenure | 3 | 483.933 | 1.28 | >.05 |
| Min/Maj by Univ. Tenure | 3 | 1115.684 | 2.94 | <.05 |

[a]Min--Minority: Black students in the predominantly white university and white students in the predominantly black university.

Maj--Majority: White students in the predominantly white university and black students in the predominantly black university.

(one to two years) 45.9; minority (between two and three years) 45.4; minority (more than three years) 52.4; majority (more than three years) 51.6. These means suggest that there were significant differences between minority and majority students enrolled for less than one year and that majority students had higher mean scores on alienation in society. No significant differences were found between the other groups. Further analysis of these data comparing the four subgroups suggested that the differences found between minority and majority students were due primarily to the scores of one of the minority groups, the minority blacks. Post hoc test results showed that there were significant differences between the scores of minority blacks (Mean = 25.2) enrolled for less than one year and majority blacks (Mean = 52.8), majority whites (Mean = 53.1), and minority whites (Mean = 48.5). No significant differences were found between the scores of any other student group on this variable.

In general, the above findings provided little support for the hypothesis. Instead, no significant differences were found on all but one of the dependent measures in the university tenure by minority/majority analyses. The significant differences that were found on this one measure for alienation in society were not due to minority or majority status but rather were obtained from the scores of only one of the minority groups.

Hypothesies 6: The Differences between Minority and Majority Students Tested in Hypotheses 3 and 4 will Increase as the Students Spend more Time in the University

Specirically, it was predicted that the greatest differences between minority and majority groups would be observed in students at higher-year levels. Four groups of year levels were compared: less than one year, one to two years, between two and three years and greater than three years. This variable, called university tenure, was crossed with minority/majority status in a 2 by 4 ANOVA design. The results of a series of these analyses with and without covariates (SES, Age, Ability) appear in Tables 54 and 55. The ANOVA ($F$ = 0.57, $p$>.05) and ANCOVA ($F$ = 2.51, $p$>.05) results show that there were no significant differences in the minority/majority status by university tenure analysis for students' attitude toward integration. Significant differences were found in the ANOVA ($F$ = 3.83, $p$<.01) but not in the ANCOVA ($F$ = 2.52, $p$>.05) on the measure for behavioral interaction with a different race, suggesting that these differences were heavily influenced by the covariates. These results do not support the hypotheses.

Statistical analyses were performed on six different hypotheses in the present study. Table 56 summarizes the analysis of variance and covariance results for each of the hypotheses.

Table 54. Analysis of Variance and Covariance Results for Students' Attitude Toward Integration

| Source | df | Sum of Squares | F | p |
|---|---|---|---|---|
| | Without Covariates | | | |
| Min/Maj[a] | 1 | 302.467 | 4.29 | <.05 |
| Univ. Tenure | 3 | 336.628 | 1.59 | >.05 |
| Min/Maj by Univ. Tenure | 3 | 120.135 | 0.57 | >.05 |
| | With Covariates (Ability, Socioeconomic Status, Age) | | | |
| Min/Maj | 1 | 334.350 | 5.33 | <.05 |
| Univ. Tenure | 3 | 646.159 | 3.44 | <.05 |
| Min/Maj by Univ. Tenure | 3 | 472.053 | 2.51 | >.05 |

[a]Min--Minority: Black students in the predominantly white university and white students in the predominantly black university.

Maj--Majority: White students in the predominantly white university and black students in the predominantly black university.

Table 55. Analysis of Variance and Covariance Results for Behavioral Interaction with the Opposite Race

| Source | df | Sum of Squares | F | p |
|---|---|---|---|---|
| | Without Covariates | | | |
| Min/Maj[a] | 1 | 6.611 | 18.47 | <.001 |
| Univ. Tenure | 3 | 2.009 | 1.87 | >.05 |
| Min/Maj by Univ. Tenure | 3 | 4.114 | 3.83 | <.01 |
| | With Covariates (Ability, Socioeconomic Status, Age) | | | |
| Min/Maj | 1 | 11.042 | 33.30 | <.001 |
| Univ. Tenure | 3 | 1.760 | 1.77 | >.05 |
| Min/Maj by Univ. Tenure | 3 | 2.371 | 2.38 | >.05 |

[a]Min--Minority: Black students in the predominantly white university and white students in the predominantly black university.

Maj--Majority: White students in the predominantly white university and black students in the predominantly black university.

Table 56. Summary of the Analysis of Variance and Covariance Results for the Study Hypotheses

| Hypothesis | ANOVA Comparison | ANOVA Results of Comparison | ANOVA Significance Level | ANCOVA Comparison | ANCOVA Results of Comparison | ANCOVA Significance Level |
|---|---|---|---|---|---|---|
| $H_1$ Depression | Min/Maj[a] | No sig. difference | >.05 | Min/Maj | No sig. difference | >.05 |
| | Min/Maj x Univ | No sig. difference | >.05 | Min/Maj x Univ | No sig. difference | >.05 |
| $H_{2a}$ Social Isolation (Society) | Min/Maj | No sig. difference | >.05 | Min/Maj | No sig. difference | >.05 |
| | Min/Maj x Univ | MAJW > MINB, MAJB | <.001 | Min/Maj x Univ | MINW, MAJW>MINB, MAJB | <.001 |
| $H_{2a}$ Social Isolation (University) | Min/Maj | No sig. difference | >.05 | Min/Maj | No sig. difference | >.05 |
| | Min/Maj x Univ | No sig. difference | >.05 | Min/Maj x Univ | No sig. difference | >.05 |
| $H_{2b}$ Alienation (Society) | Min/Maj | MIN > MAJ | <.05 | Min/Maj | No sig. difference | >.05 |
| | Min/Maj x Univ | MAJB < MINW, MAJW | <.001 | Min/Maj x Univ | MAJB < MINW, MAJW | <.05 |
| $H_{2b}$ Alienation (University) | Min/Maj | No sig. difference | >.05 | Min/Maj | No sig. difference | >.05 |
| | Min/Maj x Univ | No sig. difference | >.05 | Min/Maj x Univ | No sig. difference | >.05 |
| $H_3$ Attitudes Toward Integration | Min/Maj | MAJ > MIN | <.05 | Min/MAJ | MAJ > MIN | <.05 |
| | Min/Maj x Univ | MAJB > MAJW, MINW | <.001 | Min/Maj x Univ | MAJB > MINW, MAJW<br>MINB > MINW | <.01 |
| $H_4$ Behavioral Interaction (Different Race) | Min/Maj | MIN > MAJ | <.001 | Min/Maj | MIN > MAJ | <.001 |
| | Min/Maj x Univ | MINB>MINW, MAJW, MAJB | <.01 | Min/Maj x Univ | MINB>MAJB, MINW, MAJW<br>MINW > MAJW, MAJB | <.05 |
| $H_5$ Univ Tenure | Min/Maj | | | Min/Maj | | |
| 1. Depression | Min/Maj x Univ Tenure | No sig. difference | >.05 | Min/Maj x Univ Tenure | No sig. difference | >.05 |
| 2. Social Isolation (Society) | Min/Maj x Univ Tenure | No sig. difference | >.05 | Min/Maj x Univ Tenure | No sig. difference | >.05 |
| 3. Social Isolation (Univ) | Min/Maj x Univ Tenure | No sig. difference | >.05 | Min/Maj x Univ Tenure | No sig. difference | >.05 |
| 4. Alienation (Society) | Min/Maj x Univ Tenure | No sig. difference | >.05 | Min/Maj x Univ Tenure | (Less than 1 year)<br>MINB<MAJB, MAJW, MINW | |

Table 56 (continued)

| Hypothesis | ANOVA Comparison | ANOVA Results of Comparison | ANOVA Significance Level | ANCOVA Comparison | ANCOVA Results of Comparison | ANCOVA Significance Level |
|---|---|---|---|---|---|---|
| 5. Alienation (University) | Min/Maj x Univ Tenure | No sig. difference | >.05 | Min/Maj x Univ Tenure | No sig. difference | >.05 |
| $H_6$ University Tenure | | | | | | |
| 1. Attitudes Toward Integration | Min/Maj x Univ Tenure | No sig. difference | >.05 | Min/Maj x Univ Tenure | No sig. difference | >.05 |
| 2. Behavioral Interaction (Different Race) | Min/Maj x Univ Tenure | Not computed | <.01 | Min/Maj x Univ Tenure | No sig. difference | >.05 |

[a]Min--Minority: Black students in the predominantly white university and white students in the predominantly black university.
Maj--Majority: White students in the predominantly white university and black students in the predominantly black university.

NOTE: MINB = Minority Black
MAJB = Majority Black
MINW = Minority White
MAJW = Majority White

# CHAPTER V

# DISCUSSION OF RESULTS, LIMITATIONS OF THE STUDY AND IMPLICATIONS OF THE STUDY

## Discussion of Results

The primary purpose of this study was to evaluate whether minority students, regardless of race, experienced more common emotional stressors, and had more similar behavior and attitudes toward integration than their racial counterparts enrolled in institutions where they were in the racial majority. This goal was accomplished by studying the following student groups: black minority students, white minority students, black majority students, white majority students. Minority status was assigned to black and white students who attended a university where students of a different race from their own were predominant; majority status was assigned to black and white students enrolled in universities where their own race was predominant. The variables of interest in this study were depression, alienation, social isolation, attitudes toward integration and behavioral interaction with students of a different race. In addition, the length of time spent in the university (university tenure) was hypothesized to have an effect on these variables. Six hypotheses guided the research in this study; the findings and discussion of the findings are presented in the sections that follow for each hypothesis.

Analysis of the data for Hypothesis 1 explored the relationship between depression and minority or majority status. The results indicated that there were no significant differences between minority and majority students on depression. In addition, no significant differences were found among any of the four student groups or between blacks and whites on this variable. All of the students in this study were found to be of normal mood state according to the instrument used to measure depression in this study (Lorr & McNair, 1982). Results of this study, therefore, showed no support for the hypothesis that minority students would feel more depressed than their majority counterparts. These findings are counter to much of the other empirical research on depression in minority students (Friday, 1983; Fleming, 1981; Allen, 1981; Gibbs, 1974) which has revealed that black students in minority environments were often depressed when compared to their majority counterparts.

The literature on depression and the characteristics of the sampled subjects provide some clues to help explicate this finding. Theoretically, Weitzel (1984) described depression as a result of the interplay between the personality style and environment within which individuals operate. According to Weitzel, depression occurs in individuals who have dependent personality styles and operate in unsupportive environments. The minority students in this study do not fit well with Weitzel's concept of depression since by applying to institutions that were known for enrolling relatively small minority populations they actively chose their minority status. This decision to apply to an institution where they would be in the minority reflects

an assertive/independent style and not a dependency. Because they were active participants and to some extent exerted control in choosing to attend these institutions, we may assume that these students were not dependent but, rather, emotionally willing to be in the minority. If this were not true, these students could have selected to attend schools where they were racially in the majority.

Researchers have also reported correlations between depression and demographic variables such as sex, race, socioeconomic status (SES) and age (Weissman & Klerman, 1977; Fleming, 1981; Pettigrew, 1964). Women, blacks, the elderly and lower SES individuals were the groups most often found to be depressed. With each of these variables, however, choice or self-determination played little or no role. One cannot choose to be male or female, black or white, young or old, poor or rich. It seems evident that choice and/or the ability to exert control (Rotter, 1966) are related to depression and may have influenced the results found in this study.

In contrast to other empirical studies, Friday (1983) found that minority students scored significantly more internal on Rotter's (1966) Internal-External Locus of Control Scale. Abramowitz (1969) and Costello (1982) found strong correlations between depression and locus of control. They found that students with a more external locus of control were more often depressed; internals were less apt to be depressed. While locus of control was not specifically investigated in this study, Friday's (1983) study does lend support to the notion that minority students have an internal locus of control

and feel that their own personal decisions determine the outcome of events in their lives.

Social support, the second aspect of Weitzel's (1984) theory of depression, is related to the results of the first hypothesis and Hypothesis 2a on the relationship between social isolation and minority or majority status. The hypothesized relationship between these variables proposed that minority students would experience more social isolation than would their majority counterparts. Social isolation was measured in two ways: in society and in the university. In contrast to the hypothesized relationship, no significant differences were found between groups on social isolation in the university. Majority white students, however, scored significantly higher on social isolation in society than the two black student groups. Majority white students were not significantly different from white minority students on this variable. Much of the literature on alienation and social isolation does not report these results (Middleton, 1963; Burbach & Thompson, 1971; Pfeifer & Schneider, 1974; Madrazo-Peterson & Rodriquez, 1978; Patterson, Sedlacek, & Perry, 1984). Instead, white students were found to be more isolated than were blacks or other minority students both in higher education and in society.

Suen (1983) provided one possible explanation for this finding, which differs from much previous research done in this area. Suen found that black and white students enrolled in a predominantly white university were <u>not different</u> on measures of powerlessness and meaninglessness, two variables related to social isolation.

Suen accounted for his results in two ways: (1) changes that have occurred because of the passage of time which has given predominantly white universities more experience in addressing minority concerns, (2) changes that have occurred because black minority students became more actively involved in the university community.

The results found in the present research can be understood by embellishing Suen's (1983) argument. Although many school systems were successful in sidestepping or slowing desegregation through tactics like freedom of choice or funding private schools, by the late 1960's the courts adjudicated against these tactics. Thus, the black students in this study, most of whom were under the age of 25, had most of their school experiences in minority but desegregated environments. Because of their long-standing minority status in schools and in society in general, black students have been forced to develop coping mechanisms. Willie and McCord (1972) noted that on predominantly white campuses, black students form minority student organizations as coping mechanisms to enhance social support networks. Historically, blacks in this country have also formed a variety of social and professional organizations when they were excluded from these groups in the larger society. Therefore, being isolated or excluded from participation in the larger society is not a novel situation for blacks. For present-day blacks to have made the adjustment to the last two decades of minority status in a school or in society in general is a logical outgrowth of previous patterns of adjustment. In fact, most of the minority black students

in this study were involved in university clubs or organizations.

The experience of being in a large, state-supported university--from which the sample for this study was drawn--could produce particularly isolating feelings for students who are not a part of smaller social support networks. The white students, who probably have never been confronted with exclusion because of race, have not had to develop coping strategies to deal with isolation as routinely as have blacks. Thus, the finding that white students feel more socially isolated even in a predominantly white environment can be understood in that coping with isolation is a more unique experience for whites than for blacks. In addition, some prior literature (Stevens, 1976; Bellamy, 1982) also pointed out that minority whites often feared and felt particularly isolated in predominantly black institutions.

The results of Hypothesis 2b on the relationship between alienation and minority or majority status were similar to those found for social isolation. The hypothesized relationship between the variables (alienation and minority/majority status) proposed that minority students would feel more alienation than majority students. However, in contrast to the hypothesis, the results showed that majority blacks scored significantly lower on alienation in society than minority or majority whites but majority blacks were not significantly different from minority blacks. Blacks in general scored lower on alienation in society than did the whites in this study.

The similarities between the findings for alienation and social isolation in society are consistent with the literature in this area (Seeman, 1959; Dean, 1961; Burbach, 1972). For example, prior research on alienation demonstrates that social isolation is a dimension of alienation. High and positive correlations between these two variables ($r$ = .75) have been reported by Dean (1961), the author of the instrument used in this study.

In addition to social isolation, the Dean Alienation Scale (DAS) consists of two other dimensions, powerlessness and normlessness. The results on alienation in this study were in marked contrast to previous results reported on the relationship between minority status and alienation on the DAS. In the present research black students in the predominantly black university were significantly more likely than the two white groups to feel powerful, to be governed by norms and to have social support. These results are consistent with the explanation of the results for blacks on depression and social isolation. Black students in this study use and form social support networks as a means of allaying feelings of alienation . These networks also serve an important function of helping to empower black students.

Suen (1983) noted that not only have blacks developed coping mechanisms to deal with alienation and social isolation, but that over time predominantly white universities have become more accepting of black students. Standley's (1978) comprehensive survey of 25,000 black students in 19 different predominantly white universities

lends support to Suen's observation. Standley found that more than two-thirds of the blacks surveyed stated they would encourage other black students to attend their school. While the minority enrollment at many predominantly white schools still remains low, institutional changes have been observed in the environment of some predominantly white universities (Boyd, 1981; Allen, 1981). Now, many predominantly white universities have special support services for minority students to help them make appropriate academic and social adjustments. When desegregation began to take place in the late 1960's and early 1970's, many of these services were not available and black enrollment was neither desired nor encouraged. However, the courts played an important role in promoting changes in both secondary and higher education, which has also resulted in improving the academic and social adjustment of many black students. In essence, many institutional changes have slowly occurred in response to legal mandates and experience with the academic and social needs of black minority students. Indeed, time may have cured many ills.

It is not surprising that white minority students feel alienated in predominantly black universities. As previously noted, white students traditionally have not been forced to build social support or power networks outside the mainstream institutions available in society. In addition, these minority students pose a special threat to predominantly black schools that black students have rarely posed in predominantly white settings. Laukaitis (1980) reported that the increasing presence of white students on black campuses

made administrators fear that they would ultimately lose power and position and that whites would try to take control. Elam (1981) found that black majority students had a similar response to the increasing numbers of white students in their institutions. Black majority students feared losing the identity and cultural heritage of their institutions as white enrollment increased. Because of these issues, many white minority students, who have only recently begun to attend predominantly black universities, are now experiencing some of the same feelings of alienation and social isolation previously experienced by their black minority counterparts.

The respondents' attitudes toward integration/racial equality and minority or majority status were investigated for Hypothesis 3. The hypothesized relationship between variables proposed that minority students would have more positive attitudes than would majority students. The findings, however, provided little support for this hypothesis. Instead, this study found that black students, regardless of minority or majority status, had higher attitude scores than their white counterparts. In addition, none of the four student groups in this study reported attitude scores on the positive end of the scale. Minority whites' scores were clearly negative on this measure. The other three groups scored more in the middle range of the scale and were neither clearly positive nor negative in their attitude scores. Of the four student groups, majority blacks were the most positive and minority whites were the most negative in their racial attitudes. The literature on students' attitudes toward integration can help to explicate this finding.

St. John's (1975) comprehensive review of the literature on students' attitudes toward desegregation revealed that eight of the studies conducted between 1950 and 1973 showed that white students' attitudes were more positive following desegregation, but eight other studies showed that white students' attitudes were more negative. For blacks, St. John's (1975) review revealed that in five studies attitudes improved in a positive direction following desegregation, but six other studies reported negative findings. More recent researchers (Patterson et al., 1984; Parsons, 194; Slavin & Madden, 1979) found that the interracial attitudes of black students and parents were more positive than the interracial attitudes of their white counterparts. Thus, it seems that experience in a desegregated, minority-status setting may lead toward more positive (i.e., improved) attitudes toward integration. If so, later studies will note the trend, already apparent among blacks, beginning in the white population.

Unlike other minority students, white minority students typically are not integrated into the mainstream of the university, as evinced by their low rates of on-campus residence and participation in extra-curricular activities. In the present research, only 8% of the 65 white minority students lived on the predominantly black campus, whereas 83% of the black minority students lived on the predominantly white campus. Previous research (Brown & Stein, 1972; Brown, 1973; Standley, 1978; Laukaitis, 1980) also revealed that white minority students selected predominantly black institutions primarily for economic (i.e. low cost) and practical reasons (i.e. location, academic

programs relevant to career goals) not because of their attitudes toward blacks. In contrast to what might be assumed, white minority students typically have little or no prior experience with blacks before attending black universities (Brown & Stein, 1972; Brown, 1973; Standley, 1978). In essence, the fact that the white minority students in this study have negative attitudes toward integration can be understood as follows: (1) they feel alienated and socially isolated, (2) they have little previous experience relating to blacks or being in minority situations,(3) they typically do not get involved with blacks outside the classroom, (4) they often have different life-styles than blacks (i.e. married, older), and (5) their college choice was based on economic rather than social reasons. These factors are consistent with the literature review of St. John (1975), who noted that almost one-half of the studies revealed that following desegregation students' racial attitudes became more negative.

The data and analyses for Hypothesis 4 explored the relationship between minority or majority status and students' behavioral interaction with students of a different race from their own. The results supported the hypothesized relationship between the variables. Minority students were scored significantly higher than majority students in their behavioral interactions. Consistent with Hypothesis 3, however, none of the student groups scored in the higher range on this measure. Instead, majority students' interactions were characteristically of a non-intimate nature (e.g. attending classes, casual conversation) and were fewer in number than minority students. Typically, minority students' interactions were at moderate levels

of intimacy (e.g. worked with, studied with) and few students typically interacted in the high intimacy range (e.g. close personal friend, dating, sexual relationship) with students of a race different from their own.

Damico and Scott's (1984) description of the intensity of cross-race contacts can be used as a model to help explain some results found in the present study. Most of the students in the study engaged in what Damico and Scott (p. 167) described as "supportive norm contact," which involved interactions of a superficial nature rather than personal or intimate cross-race contacts. Damico and Scott (p. 165) noted that in order for more intimate levels of cross-race contacts to occur, several conditions should exist:

> (1) minority and majority group members must enjoy equal status; (2) there has to be cooperative interaction aimed at achieving shared goals; and (3) there must exist a social climate in which authority figures are seen as supporting interracial association.

In addition, Damico and Scott found that the intensity of cross-race contacts in high school was significantly and positively correlated with college cross-race contacts.

Damico and Scott's (1984) model suggests that the results of the present research on behavioral interactions are logically intertwined with the results of the other hypotheses. In the present research, many students felt alienated, socially isolated and had negative attitudes toward integration. Therefore, the pre-conditions for cross-race contacts previously described (i.e. equal status,

shared goals, social climate supporting interracial association) did not seem to be present in the universities of interest in this study. Instead, the results of this study suggested that the quality of cross-race behavioral interactions was consistent with the negative to moderate attitudes toward integration reported by the entire sample and the social isolation and alienation reported by the white student groups.

The relationships between university tenure and the dependent variables (depression, alienation, social isolation, attitudes toward integration and cross-race behavioral interaction) were investigated in an attempt to explain Hypotheses 5 and 6. It was hypothesized that the differences between student groups on depression, social isolation and alienation would decrease as the students spent more time in the universities, and the differences would increase on the two remaining variables (i.e. increase in attitudes toward integration and cross-race behavioral interaction). The results of analyses related to these hypotheses identified no significant differences between student groups on the variables of interest by university tenure. The literature shows contradictory findings on university tenure. While some researchers (Fleming, 1981; St. John, 1975) reported positive changes with increasing university tenure on racial attitudes and cross-race contacts, others reported negative outcomes (Parsons, 1984; Madrazo-Peterson & Rodriquez, 1978). A similar contradictory pattern has been reported on depression, alienation and social isolation. Many researchers

(Damico & Scott, 1984; Friday, 1983; Oliver et al., 1985; Standley, 1978; Pfeifer & Schneider, 1974) did not investigate this factor.

## Limitations of the Study

One of the primary limitations of this study is related to the complexity of the dependent variables and the various ways by which they have been defined and measured in previous research and in the literature. For example, various authors (Beck et al., 1979; Weitzel, 1984; Holmes & Raye, 1967; Blatt, 1974) have described depression from psychoanalytic, behavioral, cognitive or environmental perspectives. These perspectives resulted in different techniques designed to measure depression. As a result of these complexities, it is difficult to interpret the present findings in light of the previous research. These same issues are relevant for each of the other dependent variables.

A second limitation of this study is that the sample was not random. Random sampling was not a reasonable approach to obtain minority students because they represented such a small percentage of the university's total enrollment. As such, minority black students were primarily solicited from organized social and academic groups and minority whites were solicited through the office of minority recruitment. Selection of majority students was on a voluntary basis primarily from academic classes. The need to choose students--especially black students--from clubs and organizations (one indicator of superior black coping) could have influenced the results.

Therefore, the results of this study should be generalized with great care.

A third limitation of this study is related to the instrumentation and data collection techniques. The data were collected in large groups with self-administered inventories. This technique has limited utility for obtaining descriptive data about how individuals cope with their minority or majority status. Interviewing subjects may have been more useful in describing individual nuances of students' behavior and adjustment. Follow-up interviews with a sample of respondents may have provided additional insights into reasons why study results generally did not support the findings of prior research.

## Conclusions and Implications of the Study

The results of this study showed that the minority and majority black student groups were more similar to each other than they were to their white minority or majority counterparts. While minority and majority does imply a numerical phenomenon, racial factors were found to be more important in this study for explaining the differences between groups. That is, black students in one setting (regardless of minority or majority status as defined in this study) were more like black students in another setting and white students in one setting (regardless of minority or majority status) were more like white students in another setting. Observed differences on the variables in this study generally appeared to reflect racial

differences and not the conditions within which the races were operating.

In contrast to the hypothesized relationships between variables, black students also seemed more adept at coping with their university environments regardless of their minority/majority status (e.g. they felt less isolated and alienated) and had more positive racial attitudes than did white students. These findings can be explained by the fact that black students had more success than white students at forming and participating in social support networks. Participation in organized social support groups, in which most of the black minority students were involved, helped to allay some of the normal feelings of alienation, depression and social isolation that would be expected to occur in a large, state-supported university.

One of the most interesting findings in this study was that the results for white minority students looked very similar to the results reported for black minority students in previous research undertaken during the 1960's and 1970's. This suggested that minority students may have some common experiences but that because of the changes that have occurred over time black students have already experienced many of the negative reactions to minority status that white minority students are only now beginning to experience. Therefore, one implication of this research is that predominantly black universities, like their white counterparts, will need to begin assisting white students in making academic and social adjustments to their minority environments.

Because of the paucity of literature on the impact of minority status on non-black groups, the findings in this study support the need for future research in this area. In particular, researchers should begin to empirically evaluate how white students adjust to minority situations, since the courts are now mandating that predominantly black state-supported universities enroll more white students.

While the results of this study found that black students were making many positive social adjustments, lacunae still exist in the literature in this area because some researchers do not value these types of investigations. In order for black students to continue to enroll and graduate from minority and majority institutions, however, it will be important for university administrators to continue to accumulate data about how racial minority or majority status affects students' academic performance.

This study also revealed that many majority white students may have difficulty adjusting in one predominantly white, very large, state-supported university. The results suggested that, like minority students, some majority studies need assistance in making the adjustment to university life. In fact, the results of this study showed that white students may not be as well-equipped for adjusting and coping in the large university setting as are black students, because of their inexperience in making some social adjustments. In essence, through support of research on the psychological impact of minority status on black and white students, psychologists,

educators and other social scientists can provide valuable information to help insure that all students have greater opportunities for achieving academic and social success in college.

# LIST OF REFERENCES

Baxter, F. V. (1982). The affirmative duty to desegregate institutions of higher education--defining the role of the traditionally black college. Journal of Law and Education, 11, 1-40.

Beck, A. T. (1967). Depression. New York: Harper and Row.

Beck, A., Rush, J., Shaw, B., & Emery, G. (1979). Cognitive therapy of depression. New York: Guilford Press.

Bell, D. A. (1979). Black Colleges and the desegregation dilemma. Emory Law Journal, 28, 949-984.

Bellamy, D. (1982). White students--historically black Fort Valley State College: A study of reverse desegregation in Georgia. Negro Educational Review, 33, 112-134.

Bibring, E. (1953). Mechanisms of depression. In P. Greenacre (Ed.). Affective disorders. New York: International Universities Press.

Blatt, S. (1974). Levels of object representation in anaclitic and introjective depression. The Psychoanalytic Study of the Child, 29, 107-157.

Boyd, W. M. (1974). Desegregating America's colleges. New York: Praeger.

Boyd, W. M. (1981). The forgotten side of the black undergraduate: an assessment of academic achievements and aspirations during the 1970s. In G. Thomas (Ed.). Black students in higher education. (pp. 142-151). Connecticut: Greenwood Press.

Brown, C. I. (1973). The white student on the black campus. Atlanta: Southern Regional Education Board.

Brown, C. I. (1978). The white presence on the black campus; some questions and answers. (ERIC Document Reproduction Service No. ED 224 378)

Brown, C. I. (1980). The white presence at traditionally black public colleges and universities; a synopsis. (ERIC Document Reproduction Service No ED 224 379)

Brown, C. I. (Ed.). (1980). The white student on the black cammpus: An anthology of essays and studies. (ERIC Documents Reproduction Service No. ED 224 389)

Brown, C. I., & Stein, P. R. (1972). The white student in five predominantly black universities. Negro Educational Review, 23, 148-169.

Brown v. Board of Education of Topeka, 347 U.S. 483 (1954).

Buffkins, A. (1977). White students at black schools. Journal of Afro-American Issues, 5, 66-71.

Bumberry, W., Oliver, J., & McClure, J. (1978). Validation of the Beck Depression Inventory in a university population using psychiatric estimates the criterion. Journal of Consulting and Clinical Psychology, 46, 150-155.

Bugental, J. (1976). The search for existential identity. San Francisco: Jossey-Bass.

Burbach, H. J., & Thompson, M. A. (1971). Alienation among college freshmen: A comparison of Puerto Rican, black and white students. Journal of College Student Personnel, 12, 248-252.

Burbach, H. J. (1972). The development of a contextual measure of alienation. Pacific Sociological Review, 15, 225-234.

Burrows, R. A. (1977). The impact of desegregarion on black public colleges and blacks in public higher education: Some views of black college administrators. Negro Educational Review, 28, 63-74.

Carr, D. (1979). A study to identify factors which may positively influence the recruitment and retention of "other race" students at Virginia's state-supported institutions of higher education: final report. (ERIC Document Reproduction Service No. ED 187 166)

Clark, K. B. (1947). Racial identification and preference in negro children. In T. Newcomb & E. Hartley (Eds.). Readings in social psychology. New York: H. Holt.

Cohen, E. (1975). The effects of desegregation on race relations. Law and Contemporary Society, 39, 271-299.

Cook, S. W. (1985). The 1954 social science statement and school desegregation: a reply to Gerard. American Psychologist, 39, 819-832.

Cooper v. Aaron, 358 U.S. 1 (1958).

Coopersmith, S. (1967). The antecedents of self-esteem. San Francisco: W. H. Freeman.

Cordes, C. (1984). The past and future of desegregation. American Psychological Association Monitor, 15, 22.

Cosby, A. (1971). Black-white differences in aspiration among deep south high school students. Journal of Negro Education, 40, 17-21.

Costello, E. J. (1982). Locus of control and depression in students and psychiatric outpatients. Journal of Clinical Psychology, 38, 340-343.

Damico, S., & Scott, E. (1984). Role of extracurricular activities in the promotion of cross-race contact by white students from high school to college. The Urban Review, 16, 165-176.

Datcher, E., Savage, J., & Checkosky, S. (1974). School type, grade, sex and race of experimenter as determinants of racial preference and awareness in black and white children. Journal of Social and Behavioral Sciences, 20, 41-49.

Davis, J. A., & Borders-Patterson, A. (1973). Black students in predominantly white North Carolina colleges and universities. Research Report 2. New York: College Entrance Examination Board.

Dean, D. G. (1961) Alienation: Its meaning and measurement. American Sociological Review, 26, 753-758.

DeRosis, H., & Pellagrino, V. The book of hope. New York: Bantam Books.

Dimond, P. R. (1982). Constitutional requirements. In R. Wilson (Ed.), Race & equity in higher education. Washington, DC:: American Council on Education.

Dohrenwend, B. P. (1967). Social status, stress and psychological symptoms. American Journal of Public Health, 57, 625-632.

Egerton, J. (1982). Race and equity in higher education. In R. Wilson (Ed.), Race and equity in higher education. Washington, DC: American Counil on Higher Eduction.

Elam, A. M. (1972). Social attitudes held and methods of change desired by black and white students in a "reverse integration" college setting. Unpublished doctoral dissertation. Pennsylvania State University.

Elam, A. M. (1978). Two sides of the coin: White students in black institutions. Journal of the National Association of Women, Deans, Administrators, and Counselors, 41, 57.

Epps, E. G. (1969). Correlates of academic achievement among northern and southern urban negro students. Journal of Social Issues, 25, 55-70.

Epps, E. G. (1972). Black students in white schools. Worthington, OH: C. A. Jones Publishing Co.

Erickson, E. (1965). The concept of identity in race relations: notes and queries. In T. Parson & B. Clark (Eds.), The negro American. Massachusetts: Beacon Press.

Fleming, J. L. (1981). Stress and satisfaction in the college years of black students. Journal of Negro Education, 50, 307-318.

Fleming, J. L. (1984). Blacks in college: A comparative study study of students' success in black and white institutions. San Francisco: Jossey-Bass Publishers.

Fleming, J. E. (1981). Blacks in higher eduction to 1954: a historical overview. In G. Thomas (Ed.), Black students in higher education. Westport, CT: Greenwood Press.

Freud. S. (1984). Mourning and melancholia. In J. Weitzel, The clinical handbook of depression. New York: Gardner Press, Inc.

Freund, R., & Littell, R. (1981). SAS for linear models: A guide to the ANOVA and GLM procedures. North Carolina: SAS Institute, Inc.

Friday, J. C. (1983). Personality and demographic variables of black and white college freshmen in two academic settings; a comparative study. Unpublished doctoral dissertation. The University of Tennessee.

Fromm, E. (1955). The sane society. New York: Rinehart.

Gaines v. Canada, 305 U.S. 377 351 (1938).

Geier v. University of Tennessee, 597 F. 2nd 1056 (6th Cir. 1979).

Gerard, H. B. School desegregation: The social science role. American Psychologist, 38, 869-877.

Gibbs, J. T. (1974). Patterns of adaptation among black students at a predominantly white university. American Journal of Orthopsychiatry, 44, 728-740.

Gist, N. P., & Bennett, W. S. (1963). Aspirations of negro and white students. Social Forces, 42, 40-48.

Glaser, K. (1967). Masked depression in children and adolescents. American Journal of Psychotherapy, 21, 565-574.

Goodman, M. (1952). Race awareness in young children. Cambridge, MA: Addison-Wesley.

Gottlieb, D. (1964). Goal aspirations and social fulfillment: Differences between deprived and affluent American adolescents. American Journal of Opthopsychiatry, 34, 934-941.

Green v. County Board of New Kent County, 391 U.S. 430 435 (1968).

Griffin v. County School Board of Prince Edward County, 377 U.S. 218 (1964).

Gunther, G. (1975). Constitutional law: Cases and materials. New York: The Foundation Press, Inc.

Gurin, P. (1970). Motivation and aspirations of southern negro youth. American Journal of Sociology, 75, 607-631.

Gurin P., & Gaylord, C. (1976). Educational and occupational goals of men and women at black colleges. Monthly Labor Review. 99, 10-16.

Hammen, C. L. (1980). Depression in college students: Beyond the Beck Depression Inventory. Journal of Consulting and Clinical Psychology, 48, 126-128.

Harris, A. R., & Stokes, R. (1978). Race self-evaluation and the Protestant ethic. Social Problems, 26, 71-85.

Haynes, L. (1978). A critical examination of the Adams Case: A source book. Washington, D.C.: Institute for Services to Education.

Hedegard, J., & Brown, D. (1969). Encounters of some negro and white freshmen with a public multi-university. Journal of Social Issues, 25, 131-144.

Holmes, T., & Rahe, R. (1967). The Social Readjustment Rating Scale. Journal of Psychosocmatic Research, 11, 213-218.

Hrabowski, F. A. (1975). A comparison of the graduate academic performance of black students who graduated from predominantly black colleges and predominantly white colleges. Unpublished doctoral dissertation. University of Illinois--at Urbana-Champaign.

Hunt, D. E., & Hardt, R. H. (1969). The effects of upward bound programs on the attitudes motivations and academic achievement of negro students. Journal of Social Issues, 25, 122-124.

Jones, J. C., Harris, L., & Hauck, W. E. (1975). Differences in perceived sources of academic difficulties: Black students in predominantly black and predominantly white colleges. Journal of Negro Education, 44, 519-529.

Jones, L. (1979), Black students enrolled in white colleges and universities: Their attitudes and perceptions. Atlanta: Southern Regional Education Board.

Kashani, J. H., & Priesmeyer, M. (1983). Differences in depressive symptoms and depression among college students. American Journal of Psychiatry, 40, 1081-1082.

Katz, I. (1967). Motivational determinants of racial differences in intellectual achievement. International Journal of Psychology, 2, 1-12.

Katz, I., & Benjamin, L. (1960). Effects of white authoritarianism in biracial work groups. Journal of Abnormal and Social Psychology, 61, 448-456.

Laukaitis, W. E. (1980). Problems and progress in the desegregation of the predominantly black public universities of North Carolina: with particular focus on North Carolina A & T State University. Negro Educational Review, 31, 60-69.

Littig, L. W. (1971). Motives of negro Americans who aspire to traditionally open and closed occupations. Journal of Cross-Cultural Psychology, 2, 77-86.

Littig, L. W. (1968). Negro personality correlates of aspiration to traditionally open and closed occupation in America. Journal of Negro Education, 37, 31-36.

Lorr, M, & McNair, D. (1984). Manual, profile of mood states: Bi-polar form. San Diego: Educational and Industrial Testing Service.

Lyons, J. E. (1973). The admission of non-black students as an indicator of a potential shift in the traditional role of the black publicly supported colleges and universities. Unpublished doctoral dissertation. University of Connecticut, Storrs.

MacMurray, J. (1961). Persons in relation. New York: Harper and Row.

Madrazo-Peterson, R., & Rodriguez, M. (1978). Minority students perceptions of a university environment. Journal of College Student Personnel, 19, 259-263.

Matlock, J. (1984). The effect of desegregation policies on historically black public colleges and universities. In A. Garibaldi (Ed.), Black colleges and universities; challenges for the future (pp. 199-218). New York: Praeger.

Merton, R. K. (1946). Mass persuasion. New York: Harper.

Middleton, R. (1963). Alienation, race and education. American Sociological Review, 28, 973-977.

Morris, L. (1979). Elusive equality: the status of black Americans in higher education. Washington, DC: Howard University Press.

McCarthy, J., & Yancey, W. (1971). Uncle Tom and Mr. Charlie: metaphysical pathos in the study of racism and personal disorganization. American Journal of Sociology, 76, 648-673.

McLaurin v. Oklahoma State Regents, 339 U.S.637, 641 (1950).

Norris v. State Council of Higher Education, 327 F. Supp. 1368 (1971).

Oliver, M., Rodriguez, C., & Mickelson, R. (1985). Brown and black in white: the social adjustment and academic performance of Chicano and black students in a predominantly white university. The Urban Review, 17, 3-23.

Parsons, M. (1984). Metropolitan school desegregation and parent and student attitudes: A longitudinal case study. The Urban Review, 16, 102-117.

Patterson, A. M., Sedlacek, W. E., & Perry, F. W. (1984). Perceptions of blacks and Hispanics in two university environments. Journal of College Student Personnel, 25, 513-518.

Payne, K., & Kirschner. (1983). United Negro College Fund statistical report. New York: United Negro College Fund Inc.

Pettigrew, T. (1964). A profile of the negro American. New York: Van Nostrand.

Pfeifer, C. M., & Schneider, B. (1974). University climate perceptions by black and white students. Journal of Applied Psychology, 59, 660-662.

Phares, E. J. (1972). A social learning theory approach to psychopathology. In J. Rotter, J. Chance, & E. Phares (Eds.), Application of a social learning theory of personality. New York: Holt, Rhinehart and Winston.

Picou, J. S. (1973). Black-white variations in a model of the occupational aspiration process. Journal of Negro Education, 42, 117-122.

Plessy v. Ferguson, 163 U.S. 537 (1896).

Rainwater, L. (Winter, 1966). Crucible of identity: the negro lower class family. Daedalus, 172-217.

Renner, K. (1984, December 6). UT mulls incentives to lure more blacks. Knoxville Journal, d-1.

Rosenberg, M., & Simmons, R. (1971). Black and white self-esteem: the urban school child. Rose Monograph, Washington, DC: American Sociological Association.

Rosser, J. M. (1972). Higher education and the black American: an overview. Journal of Afro-American Issues, 1, 189-203.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs: General and Applied, 80, 1-28.

Sanders v. Ellington, 288 F. Supp. 937, 940 (1968).

Seeman, M. (1959). On the meaning of alienation. American Sociological Review, 24, 783-791.

Seligman, M. (1973). Fall into helplessness. Psychology Today, 6, 43-48.

Sipuel v. Board of Regents, 332 U.S. 631, 632 (1948).

Slaney, R. B., & Brown, M. T. (1983). Effects of race and socioeconomic status on career choice variables among college men. Journal of Vocational Behavior, 23, 257-269.

Slavin, R., & Madden, N. (1979). School practices that improve race relations. American Educational Research Journal, 16, 169-180.

Smith, D. H. (1980). Retention problems of black students at seven predominantly white universities. National Advisory Committee on Black Higher Education and Black Colleges and Universities. Washington, DC: U.S. Government Printing Office.

Smith, J. (1980). Preface. In C. Brown & B. Speller (Eds.), Desegregation and the white presence on the black campus: A bibliography for researchers. (IV-VI). NC: Institute on Desegregation.

Sorkin, A. L. (1969). A comparison of quality characteristics of Negro and white public colleges and universities in the South. Journal of Negro Education, 38, 112-119.

St. John, N. H. School desegregation outcomes for children. New York: John Wiley & Sons, Inc., 1975.

Standley, N. V. (1978). White students enrolled in black colleges and universities: Their attitudes and perceptions. Atlanta: Southern Regional Education Board.

Stevens, I. R. (1976). Beliefs of caucasian students enrolled in selected Negro higher education institutions concerning housing and student activities. Unpublished doctoral dissertation. Southern Illinois University.

Stevenson, H., & Stewart, E. (1958). A developmental study of racial awareness in young children. Child Development, 29, 399-409.

Suen, H. K. (1983). Alienation and attrition of black college students on a predominantly white campus. Journal of College and Student Personnel, 24, 117-121.

Sweatt v. Painter, 339 U.S. 629, 634 (1950).

Thomas, G. E. (1981). Black students in higher education. CT: Greenwood Press.

Tillich, P. (1959). The courage to be. New Haven: Yale University Press.

Tolor, A. (1974). Alienation as measured by three different instruments. Journal of Psychology, 86, 297-302.

Tonks, C., Paykel, E., Klerman, G. (1970). Clinical depressions among Negroes. American Journal of Psychiatry, 127, 330-335.

U.S. Department of Commerce, Bureau of the Census. (1984). Statistical abstract of the United States. Washington, DC: U.S. Government Printing Office.

Venditti, F. P. (1981). Second generation school desegregation problems: A challenge to the profession. The Educational Catalyst, 11, 24-29.

Webster, D., Sedlacek, W., & Miyares, J. (1979). A comparison of problems perceived by minority and white university students. Journal of College Student Personnel, 20, 165-173.

Weinberg, M. (1983). The search for quality integrated education: Policy and research on minority students in school and college. CT: Greenwood Press.

Weissman, M., & Klerman, G. (1977). Sex differences and the epidemiology of depression. Archives of General Psychiatry, 34, 98-111.

Weissman, M., & Myers, J. (1978). Affective disorder in a U.S. urban community: The use of research criteria in an epidemiological survey. Archives of General Psychiatry, 35, 1304-1311.

Weitzel, J. (1984). Clinical handbook of depression. New York: Gardner Press, Inc.

Willie, C. V. (1981). Make it possible for whites to be the minority: An educational goal for the next twenty-five years. Negro Educational Review, 32, 78-88.

Willie, C. V., & Hedgepeth, C. M. (1979). The educational goals of black colleges. Journal of Higher Education, 50, 89-96.

Willie, C. V., & McCord, A. S. (1972). Black students at white colleges. New York: Praeger.

Wilson, A., & Krane, R. (1980). Change in self-esteem and its effects on symptoms of depression. Cognitive Therapy and Research, 4, 419-421.

Yancey, W. L., Rigsby, L., & McCarthy, J. (1972). Social position and self-evaluation: The relative importance of race. American Journal of Sociology, 78, 338-359.

Zemore, R., & Bretell, D. (1983). Depression-proneness, low self-esteem, unhappy outlook and narcissistic vulnerability. Psychological Reports, 52, 223-230.

# APPENDIX

# APPENDIX

## Student Opinion Questionnaire

Below are some statements regarding social attitudes which some people agree with, while others disagree. Respondents were asked to give their opinions about each by selecting one of the following responses:

| | |
|---|---|
| SA | Strongly Agree |
| A | Agree |
| U | Uncertain |
| D | Disagree |
| SD | Strongly Disagree |

1. Integration will result in greater understanding between Blacks and Whites. (Factor 1)
2. Society has a moral right to insist that a community desegregate even if it doesn't want to. (Factor 1)
3. The Supreme Court was correct in legally mandating school desegregation. (Factor 1)
4. Busing is an appropriate means to achieve racial desegregation in schools. (Factor 1)
5. Affirmative action is an appropriate strategy to help achieve parity for Blacks in the job market. (Factor 1)
6. Integration should not be attempted because of the turmoil it causes. (Factor 1)
7. No matter how nicely they treat a Black person, White people don't really mean it. (Factor 2)

8. No matter how nicely they treat a White person, Black people don't really mean it. (Factor 2)
9. Blacks can expect no real help from most White people in the fight against racial discrimination. (Factor 2)
10. Blacks are pushing for equality too fast and too soon. (Factor 2)
11. Whites and Blacks can get along on jobs until too many Blacks try to push themselves in. (Factor 2)
12. Whites and Blacks can get along on jobs until too many Whites try to push themselves in. (Factor 2)
13. White people are only friends to Blacks when they want something from them. (Factor 2)
14. Black people are only friends to Whites when they want something from them. (Factor 2)
15. It is usually a mistake to trust a person of another race. (Factor 2)

## Behavioral Interaction with Students of a Different Race Questionnaire

Many college students have interacted with a person of another race. The following list consists of types of activities that a white/black college student may have engaged in with a black/white college student.

For each activity, respondents were asked to respond by selecting one of the following:

| | |
|---|---|
| Y | Yes, I have done this with one or more black/white students |
| N | No, I have not done this with at least one black/white student |
| X | I am unwilling to respond to this item |
| N/A | This item is not applicable to me |

1. Attended classes with one or more black/white students.
2. Sat next to one or more black/white students in class.
3. Ate in the dining hall at the same table with one or more black/white students.
4. Had one or more black/white students in my social fraternity or sorority.
5. Had one or more black/white students as roommates.
6. Had a sexual relationship with one or more black/white students.
7. Went to an athletic event with one or more black/white students.
8. Went to church with one or more black/white students.
9. Went to the movies with one or more black/white students.
10. Went to a party or dance with one or more black/white students.

11. Drank alcohol (beer, wine, liquor) with one or more black/white students.
12. Invited one or more black/white students home with me (parents' home)
13. Studied with one or more black/white students.
14. Went shopping (food, clothes, etc.) with one or more black/white students.
15. Went on vacation with one or more black/white students.
16. Went with one or more black/white students to a concert or play.
17. Solicited the opinion of one or more black/white students.
18. Voted for one or more black/white students in an election or elected position.
19. Worked on campus with one or more black/white students.
20. Did laundry with one or more black/white students.
21. Took drugs with one or more black/white students.
22. Cooked with one or more black/white students.
23. Had one or more black/white students as a personal friend.
24. Dated one or more black/white students.
25. Visited the home (parents') of one or more black/white students.
26. Worked on a class project with one or more black/white students.
27. Walked on campus with one or more black/white students.

28. Participated in the same club or organization with one or more black/white students.
29. Visited in the dorm room or apartment of one or more black/white students.
30. Lived next door to one or more black/white students.
31. Invited one or more black/white students to a party or other social gathering.
32. Met members of one or more black/white students' families.
33. Rode in the same car with one or more black/white students.
34. Had a casual conversation with one or more black/white students.
35. Married a black/white student.

# VITA

Julie Elizabeth Williams was born in Quantico, Virginia on December 7, 1957. She attended primary and elementary schools in Germany, Georgia and Virginia. She graduated valedictorian from Bowling Green Senior High School, Bowling Green, Virginia in June 1975. Ms. Williams graduated from The College of William and Mary, Williamsburg, Virginia in May 1979, with a double major in psychology and sociology.

In September 1979 Ms. Williams entered the graduate program in Clinical Psychology at The University of Tennessee. During her tenure there she worked in a variety of mental health related organizations. She was appointed as a predoctoral fellow in clinical psychology at Yale University in July 1982.

Ms. Williams worked as an instructor at Knoxville College and as an evaluator of adolescent pregnancy programs for the Bureau of Educational Research and Service at The University of Tennessee. In addition, Ms. Williams was employed as a mental health consultant for the Knoxville Job Corps Center. She was awarded the Doctor of Philosophy degree with a major in Psychology in August 1986.