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## An Investigation Into the Psycho-Social Factors Related to the Academic Attrition of Minority Graduate Students

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LOYOLA UNIVERSITY CHICAGO

AN INVESTIGATION INTO THE PSYCHO-SOCIAL FACTORS  
RELATED TO THE ACADEMIC ATTRITION  
OF MINORITY GRADUATE STUDENTS

A THESIS SUBMITTED TO  
THE FACULTY OF THE GRADUATE SCHOOL  
IN CANDIDACY FOR THE DEGREE OF  
MASTER OF ARTS

DEPARTMENT OF PSYCHOLOGY

BY

DENISE DANIELS

CHICAGO, ILLINOIS

JANUARY, 1996

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## CHAPTER I

### INTRODUCTION

In 1952, African-Americans represented only six percent of the undergraduate college student population and one percent of the graduate student population in the United States (Statistical Abstracts, 1954). During the Civil Rights movement of the 50's and 60's, there was increased focus on minority access to higher education. Increasing minority enrollment at institutions of higher learning was seen as a major solution to the problem of racial inequality (Allen, 1988). As a result, affirmative action policies and social service programs were implemented by the federal government and universities throughout America to increase minority student enrollment. By 1969, the number of minority students in institutions of higher education had increased by 167.4% (Statistical Abstracts, 1960). By 1978, minority students made up 10.7% of doctoral recipients (Statistical Abstracts, 1980). The attitude of social justice and affirmative action policies were responsible for the increase in minority student enrollment in colleges and

universities; however, since 1980 there has been declining numbers of minority students in American graduate schools. In 1989, African-Americans earned only 2.8% of Ph.D. degrees in the United States, substantially less than their 12% representation in the population (U.S. Department of Education, 1992). Also Latinos, who represent 6.5% of the population only received 1.6% of the 1989 conferred Ph.D. degrees (U.S. Department of Education, 1992). As is evident by the data that is presented and by some institutions of higher education, minorities are under-represented in most doctoral training programs in this country (Chronicle of Higher Education, 1992; Shea & Fullilove, 1985).

Explanations for this trend have been put forward by several writers. What follows is a brief outline of these arguments.

## CHAPTER II

### REVIEW OF LITERATURE

#### Barriers to Enrollment and Retention

Evans (1985) suggests that there are five barriers to African-American student enrollment in higher education. The first, and most crucial barrier, has been federal financial aid cutbacks and changes (Allen, 1988). This is particularly salient given that the earning power of African-Americans is 56% of that of their Caucasian counterparts (Evans, 1985). Historically, African-Americans have been at an economic disadvantage due to their lack of access to higher paying jobs and limited educational opportunities. Although efforts have been made to address the economic oppression of African-Americans in the past, the expanding numbers of African-American families who are below the poverty line negatively affect the financial potential of many African-American families to send their children to college (Oliver & Brown, 1988).

Tuition costs have dramatically exceeded inflation over

the last 10 years (Evangelauf, 1990). Increasing tuition costs coupled with the wealth disparity between Caucasian, African-American and Latino families present a clear picture why access to professional education is particularly difficult for minority families. "Early reports of the 1988 Census revealed that Caucasian households (\$43,280) have 10 times the median net wealth of African-American households (\$4,170) and eight times that of Latino households (\$5,520)" (Rich, 1991, p. A3). In a study conducted in 1985 by the American Council on Education, it was discerned that middle income families relied on savings, work and loans to pay for college (Miller & Hexter, 1985). Low income families, who have less economic resources, are required to provide for at least half of their college cost (Churaman, 1992). In addition, financial aid programs have changed radically since 1980 moving more toward aid in the form of loans and decreasing the number of grants. This approach unfortunately leaves lower income families with a disproportionate financial responsibility making it difficult for them to afford college tuition.

Churaman (1992) studied how students finance their education focusing on majority and minority families. She

analyzed data from the National Postsecondary Student Aid Study conducted by the U. S. Department of Education (1988, 1989). Her review revealed that African-American (61%) and Latino (56%) students have a disproportionate number of females in higher education (Churaman, 1992). The percentages of single-headed households were significantly different for African-Americans at 44% and lowest for Caucasians at 11%. The education level for Caucasian and Asian parents was the highest. Over 45% of Native American and African-American students had one of their parents finish college. While in contrast, 45% of Caucasian and 46% of Asians students had both of their parents finish college. When examining financial aid, African-Americans were more likely to apply for financial aid (78%) while Caucasians were the least likely (48%) with half of Latinos and Asians applying. Of those who applied, 91% of African-Americans received financial aid, 90% of Native Americans, 85% of Latinos, 81% of Caucasians, and 79% of Asian-Americans.

Churaman (1992) identifies another important factor to consider when looking at a student's ability to financially support a college education through parent's saving. Asian-Americans students tend to rely more heavily upon their

families' saving (54%), than their Caucasian (52%), Latino (37%), Native American (36%), and African-American (25%) counterparts. She also reported that student financial contributions were also significantly different across racial lines with Native American students having to pay the most on average (\$1,748) to attend college and African-American students contributing the least (\$969). The total amount of financial aid received was highest for Asian-American students with African-American, and Latino students following closely behind. Of the type of financial aid available, grant aid was the most frequent form of financial assistance utilized; while work study was the least frequent form of financial aid accepted.

The second barrier discussed by Evans (1985) and Jaschik (1985), is governmental cutbacks in financial aid programming. After the Civil Rights Act of 1964, the federal government and universities provided funding for academic and social support programs (i.e. improved social adjustment and social networks) for minority students (Allen, 1988; Evans, 1985). When the federal government stopped funding academic and social support services for minority students, so did many universities (Evans, 1985;



Shea & Fullilove, 1985). This produced a deficit in support services available for minority students who were having to contend with foreign and often hostile environments in our universities and colleges.

Prejudice, discrimination and hostility encountered by minority students at predominantly Caucasian universities often result in increased levels of stress for African-American students (Hughes, 1987). U.S. News and World Report (1993) surveyed 550 student newspaper editors and they revealed that 71 percent of colleges (85% of institutions with enrollments of 10,000 or more) had at least one incident of ethno-violence during the school year. Many scholars believe that the upsurge of racism against minorities was implicitly encouraged by the Reagan presidential administration (Farrell & Jones, 1988). This is evident by the attempts to stimulate feelings of fear and social inequity in the American socio-political system. Commentary in the U.S. News & World Report (1988) typifies this approach: mid-level White House Staffers made racial jokes and were referring to Martin Luther King as "Martin Lucifer Coon." Farrell and Jones (1988) believe that the above example is indicative of a national epidemic of

bigotry.

In higher education, the climate of economic scarcity and uncertainty seems to lead to greater racial intolerance. Farrell and Jones (1988) examined racial incidents by reviewing every issue of five newspapers from 1986 - 1988: The New York Times (a national newspaper), The Milwaukee Journal (a local newspaper), and selected black-oriented newspapers, The Carolinian, The Milwaukee Community Journal, and The Los Angeles Sentinel. They discovered interesting themes and trends. The primary intent of their review was to do the following: a) provide an overview of minority students' status on Caucasian college campuses; b) examine the general issue of racism in contemporary society; c) determine the scope of racial/ethnic incidents on campuses of predominantly Caucasian institutions of higher education as reported in selected periodicals; and d) assess prospects for change. The racial incidents were classified into seven categories: cross burnings, racial discrimination (i.e., perception of unfair treatment), physical attacks, racist literature, racial remarks, racist behavior, and other racial incidents (i.e., incidents of anti-Semitism and protests). Their analysis revealed that 70% of the

incidents were in the following categories: racial discrimination, racist remarks, racist behavior, and physical attacks. The seven factors were then grouped in three problem categories: white insensitivity, environmental racism, and minority and majority student's characteristics. White insensitivity includes Caucasians who have had little or no contact with ethnic minorities and are not sensitive to different cultural and social characteristics of minorities. Environmental racism refers to the larger university community (i.e., bars, bowling alleys, restaurant, etc.) that permit, if not encourage racial intolerance in their establishments. The authors defined minority and majority student's characteristics as the attitudes and patterns of interaction that take place on a university campus. In addition, Farrell and Jones (1988) examined some of the factors in university environments that may contribute to the racial climate at these institutions of higher learning.

Farrell and Jones (1988) and Sowell (1989) argue that due to the lack of academic preparedness many minority students are confronted by a backlash from their majority peers who may believe they should not, or do not deserve to

be in college; consequently, hostility and animosity develop between the students. Furthermore, it is the subtle and sophisticated forms of discrimination that keep the campuses at a "racial boiling point" (Farrell and Jones, 1988, p. 219).

More recent information from the National Institute Against Prejudice and Violence found that as many as one out of five minority students said that were victims of some form of harassment on the campus of the college they attended (Tryman, 1992). This suggests the "number of racial incidents and violence on college campuses is increasing and that from 800,000 to 1 million students report annually that they have been victims of ethno-violence (i.e., the spectrum of violent acts including potentially lethal assaults, classroom and dormitory harassment, personal insults, graffiti, and property damage, among others.), with one in four stating that they had been seriously affected by the incident" (Tryman, 1992, p. 222). This suggests that prejudice and ethno-violence is a more serious problem than has been reported and needs to be addressed by college administrators.

Farrell and Jones (1988) recommended several solutions

to address the negative racial climate that develops on many predominantly Caucasian campuses. They suggest that university officials indicate directly that racist acts will not be tolerated and will be severely punished. Second, university officials should make a commitment to minority students that racism is frowned upon by the university; and last, that university faculty and staff should reflect the diversity of the larger society. These suggestions are predictive of an institutional change that will create an environment that is more tolerant of differences.

Another barrier to minority student enrollment is the lack of commitment of colleges and universities to affirmative action policies (Allen, 1988; Evans, 1985). The universities' commitment to a diverse student body and curriculum is the point at issue. Universities' statements and goals need to reflect their commitment to a diverse student body, a diverse curriculum, and a diverse faculty. In addition, faculty members involvement and commitment to a diverse student body is very important; since, it is the faculty members who select and educate all students; however, faculty members who profess support for affirmative action programs but are unwilling or chose not to translate

their beliefs into actions may misled students (Oliver & Brown, 1988). Moreover, misled students may have "inflated expectations" of the potential recruitment efforts and an unrealistic evaluation of the social environment (Oliver & Brown, 1988, p. 40). For example, some faculty members may profess commitment to minority issues but do not participate in recruitment efforts to help increase minority representation in their department. These faculty members may not be positively regarded by minority students. These situations may be perceived as a "disparity between word and deed" (Oliver & Brown, 1988, p. 40). Minority students frequently evaluate a faculty members commitment by the member's deeds that directly affect the students' life (Oliver & Brown, 1988). If the commitment is not evident by the person's participation in committees or organizations that share the same goals and values, the students may feel deceived and isolated. The minority student may believe they are the only person who is interested in minority issues and they do not share the same values as many other people in the university; however, minority faculty members may "bridge the gap" between the university and minority students which would make the environment more manageable

and amiable (Oliver & Brown, 1988, p. 45).

Minority faculty members add diversity to the educational experience for many students. In 1989, minority faculty members made up 11.5% of full-time faculty members in higher education with 4.5% African-Americans, 2% Latinos, 4.7% Asian-Americans, and .3% American Indians (Statistical Record of Black Americans, 1993). Minority faculty members who encourage and support minority students when engaging in struggles about the direction of their future and when they are in crisis offer the support that minority students often need. Minority students also need to see and have role models and mentors with whom they can identify. In addition, minority faculty members have in many cases been the one's who pioneered African-American studies, Minority Affairs Committees, foster minority alumni participation, and provide moral support for other minority colleagues and students (Butler, 1991). These professors are expected to do all of the above duties and publish, teach, advise, and build programs, (programs which they constantly fight to maintain), with few or no mentors or role models (Butler, 1991). Minority faculty members often have to teach other faculty members about multiculturalism and respond to many

crises of racism and other injustices. They serve an enriching function for the entire university community and offer vital support.

The fourth barrier, as outlined by Evans (1985) and Allen (1988), to African-American student enrollment in higher education is related to the recent trend of many colleges to tighten their admissions standards. The purpose of college standards is to allow institutions to select students who are most suited for the academic experiences the institution has to offer and to train them to be competent professionals. Since the most often utilized predictor of collegiate academic performance (i.e., American College Test (ACT), Scholastic Achievement Test (SAT), Graduate Record Examination (GRE), etc.) may not be valid for minority students, many argue that utilizing standardized tests to screen minority applicants who seek admission to these institutions may be unethical and discriminatory (Bennett & Okinaka, 1984; Shea & Fullilove, 1985). "Predictive validity consistently shows that scores from standardized tests are less predictive of minority students' first year Grade Point Average (GPA) than those of Caucasian students" (Selacek & Adams-Gaston, 1992, p. 724).



Research consistently demonstrates that standardized test scores predict differently and less accurately for different populations including women and men (Olivas, 1993); therefore, better predictor variables for minorities that are indicative of their future capabilities should be identified and utilized.

Wainer (1988) examines how accurately SAT scores can be used to assess minority student performance. The publishers of the SAT admit and warn users that the scores derived from the examination are subject to errors of various kinds and they should be used with care (Wainer, 1988). Inferences made about small sub-populations are even more tenuous. He points out that there is a self-selection bias by examinees who choose to fill out their ethnicity; therefore, there may be a selection effect among SAT takers who decide to identify their ethnicity and those who do not (Wainer, 1988). This becomes more of a concern when notice is given to the fact that 12 to 14% of the test takers are not identifying their ethnicity which was a larger percentage than any minority group from 1980-1985. The problematic assumptions that is made is that mean scores of a particular ethnic group is the same for those who respond to the

ethnicity questions as it is for those who do not (Wainer, 1988). This is crucial because it indicates that inferences cannot be made on an individual ethnic group if there is a consistent relationship between the ethnicity question and performance. Wainer (1988) supported his argument by using mathematical probability and demonstrating that the assumption is more detrimental in reference to minority students. When adding in the probability estimates of non-white people, who did not respond to the ethnicity question the difference varies from 7,000 to 18,000 examinees (Wainer, 1988). Wainer (1988) concluded that longitudinal inferences with sufficient accuracy cannot be made and that the self-selection bias has an unmeasurable effect. He goes on to state that this introduces noise of a greater magnitude than the changes being interpreted; therefore, he concludes SAT scores are not accurate assessors of performance for sub-populations taking this examination.

Selacek and Adams-Gaston (1992) examined whether SAT scores and Non-cognitive variables (i.e., leadership, recognizing racism, preference for long-range goals, realistic self-appraisal, support for college plans, and self-confidence) are good predictors of first semester GPA

in a group of non-traditional students (i.e., athletes). Their sample consisted of 105 freshman athletes (64% male, 80% Caucasian, 15% African-American, 4% Hispanic) at a large eastern university with a NCAA Division I Athletic Program from revenue (e.g., football, basketball) and non-revenue (e.g., tennis, swimming) sports. Participants completed the Non-cognitive Questionnaire (NCQ) and submitted their SAT scores. The results indicated that SAT scores were not predictive of first semester grades but some NCQ variables (i.e., strong support person, community involvement, and positive self-concept) were predictive of first semester grades (Selacek & Adams-Gaston, 1992). These predictor variables may also be salient for minority students.

The final barrier noted by Evans (1985) was African-American students' declining interest in higher education. Due to the deficient curriculums in many of the nation's urban high schools, many urban students are not prepared to enter college (Wilson, 1987). For instance, in 1984 in Chicago's segregated and non-selective school system, 16,000 of the 25,500 African-American and Latino students who enrolled in the ninth grade did not graduate (Wilson, 1987). "Of the 9,500 students who did graduate, 4,000 read at or

below the junior level and only 2,000 read at or above the national average (Wilson, 1987, p. 57-58)." Therefore, only 8% of the minority students who enrolled in ninth grade were considered average readers in the rest of the country, a skill that is necessary to succeed in most colleges (Wilson, 1987). Also, many minority students are being encouraged to pursue vocational training, military service, and non-higher education employment. A significant corollary to this problem is the high percentage of African-Americans and Latinos who drop out of high school (Allen, 1988; Wilson, 1987); consequently, minority students are not given the foundation in public school to succeed in college and many are not completing high school.

#### Minority Student Retention

In addition to the barriers that have been stated it is important for colleges to correct historical recruitment and admissions inequality, and develop new minority recruitment initiatives; however, once the minority students are admitted the institution must focus on retention (Oliver & Etcheverry, 1987). Credle and Dean (1991) identified six major problems that decrease retention in higher education

for African-American students: a) an institution's lack of orientation toward the culture of African-American students; b) lack of awareness of the needs of African-American students; c) the inability to respond to the needs of African-American students; (d) the inability to help African-American students survive in the complex system of the institution; and (e) negative attitudes toward African-American students by faculty, staff and administrators. Effectively addressing these issues is crucial to creating an environment that will allow African-American and other minority students to academically thrive and develop on college campuses.

In a study of 79 African-American students, Hughes (1987) reported that African-American students were postponing and consciously gauging their social, personal, emotional and cultural development because they were concentrating on intellectual survival (Hughes, 1987). Some examples of the type of statements that illustrate the social, personal, emotional and cultural development are: "Socially, it's tough. Whites outnumber us by far and it's frustrating when you are stereotyped in everything." "I have decided to tough it out. I will resurface and continue

life when this sentence is over" (Hughes, 1987, p. 540). The students' choice to postpone their personal development was not due to their inability to balance academic and social goals but because the predominantly Caucasian universities' environment was unprepared to respond or plan for their social and developmental needs (Hughes, 1987). Hughes (1987) went on to report that this situation often leads to feelings of loneliness and isolation. In addition, African-American students reported receiving their sources of support, strength, and survival from family and friends who encouraged their development. This interdependence with the family is a strength that allows students to survive at these universities. Another important aspect to the social support system of African-American students is spirituality. In Hughes (1987, p. 540), it was found that "spiritual beliefs contributed to students' persistence, retention, and success . . . The Afrocentric culture is deeply rooted in spirituality as an archetype that sustained African-American people through many hardships and oppressive conditions, including the condition of slavery, which gave birth to Negro spirituals." Therefore, African-American students often find their strength in family and friend support

networks, and spiritual beliefs. Unfortunately, African-American men have a more stressful experience in institutions of higher education than their female peers.

Hughes (1987) found that African-American males were disproportionately affected by attrition in institutions of higher education. In 1987, African-American males accounted for 2.7% of the bachelors degrees conferred (Statistical Abstracts, 1992). In graduate education, African-American males account for less than one percent of the doctorate degrees conferred overall, and 21% of the doctorate degrees conferred to African-Americans in 1987 (Statistical Abstracts, 1992). The development of African-American males suffers the most in college, particularly on predominantly Caucasian campuses. Fleming (1984) suggest that male-male interactions are the most laden with hostility possibly due to male competitiveness. Due to the traumatizing experiences that many African-American males experience in the U. S., they are often more guarded in their interactions, which may alienate them from their Caucasian peers and exacerbate their problems (Hughes, 1987). The college environment is a source of tension for all students, but it is especially difficult for African-Americans without

trustworthy and supportive people to help them work through their academic and personal development issues (Hughes, 1987).

The issue of strained social environment seems to be a poignant theme in many articles on minority student retention in postsecondary academic institutions. As noted above, African-American students "reported problems of social adjustment, cultural alienation, racial discrimination, and strained interpersonal relations" (Allen, 1988, p. 185). Minority students are reporting that they often feel ignored or invisible at many colleges and universities (Fleming, 1989). Fleming (1984) reports that predominantly Caucasian colleges have not succeeded in combating African-American students' social isolation, perceptions of classroom biases, and perceptions of hostile interpersonal climates.

Social isolation, perceptions of classroom biases, and perceptions of hostile interpersonal climate are also present at the graduate level. These barriers are magnified which forces minority students to increase their social support networks and coping strategies. Minority graduate students are often severely under represented in graduate



school which intensifies their feelings of isolation and loneliness. Moreover, they are expected to become acculturated into the political/institutional culture, a culture that often is not supportive of minority students and their different interests or intellectual viewpoints. Minority graduate students often find themselves in academic communities that are often rigid and conservative and these situations may lead minority students to feel unwelcome and in some instances totally misplaced. Minority medical school students have also reported experiencing similar problems in their training programs; consequently, it appears the process of professional education mirrors hazards often confronted by minority undergraduate students (Shea & Fullilove, 1985).

However, social environments are not static; they are institutionally specific. The degree of isolation and other environmental variables can fluctuate from one institution to another; thus, studies of minority student's persistence and performance need to be institutionally based in order to avoid confounding effects of different social conditions that are associated with different institutions (Bennett & Okinaka, 1984; Gaither & Dukes, 1982).

### Factors Related to Graduate School Admission

Academic institutions utilize various criteria to assess candidates for admission into their graduate training programs. Sources of data often used in making these assessments include undergraduate GPA and GRE scores. There has been continued debate as to the validity of standardized tests in general and specifically with minority students. Shelly (1978) believes that the primary function of standardized tests is to justify the rejection rather than the acceptance of applicants. In her report, standardized test results were poor predictors of college success and were even poorer in predicting minority students academic performance.

Abedi (1991) investigated the efficacy of undergraduate GPA as a major criterion for selecting students for graduate programs. His subject pool consisted of applicants at the University of California, Los Angeles graduate programs between 1981 and 1986. He reported that undergraduate GPA was positively correlated with graduate school GPA; however, a canonical variate only explained 7.9% of the variance. This study suggested that undergraduate GPA may be the most

powerful predictor of academic performance in graduate school; however, other factors related to matriculation must be taken into consideration. These other variables will be examined later in this narrative.

Dollinger (1989) investigated the predictive validity of the GRE for a clinical psychology program at Southern Illinois University in Carbondale. This program is particularly unique because they no longer utilize GRE scores in their admissions process because they believe these scores reflect cultural bias. The researchers used a sample of 105 clinical students. They did a correlational study with the predictor variables being GPA and three GRE scores (i.e., GRE-Verbal (GRE-V), GRE-Quantitative (GRE-Q), and GRE-Advanced (GRE-Adv)). The two criterion variables were failure on a preliminary examination and a dichotomous composite of five variables (Comp): a) whether a student had failed any preliminary examination; b) whether a student had ever been placed on probation for academic or nonacademic reasons; c) whether a student who left for internship did so after no more than five years on campus; d) whether a student who left for internship did so after satisfactorily completing both preliminary examination; and e) whether a

student received a mean rating of 3 or greater on a faculty rating scale completed for this study (i.e., 5 = an alumnus we can be truly proud of, 3 = a solid grad, 1 = an embarrassment). There was a significant positive correlation between the Comp variables and GRE-Adv scores for minority and majority student subsets. When examining all students (i.e., majority and minority students), there was a significant positive correlation between the Comp variables and the predictor variables (i.e., GRE-V, GRE-Q, and GRE-Adv) and people who failed preliminary examinations had lower GRE scores (Dollinger, 1989). The researcher concluded that "when the test is not impeded by range restrictions and a negative covariance structure; the GRE scales are reasonable predictors of important performance in graduate school"; however, he believes that the practical utility of the results is influenced by philosophic and programmatic biases (Dollinger, 1989, p. 57). He affirmed that if one believes that GRE scores are grossly biased against minorities then they should not be used in the admissions process (Dollinger, 1989). Dollinger also suggested using GRE scores to predict majority student performance in graduate school and the Advanced Psychology

GRE for minorities (Dollinger, 1989). This study overcame a major bias that weakens most studies of this nature; they were able to look at progress in graduate school where GRE scores were not a requirement for admissions. However, there are other issues that require consideration. The social climate of this program may be very different from others due to their affirmative action stance on GRE scores and probably other issues; therefore, this university is philosophically different from many universities that do not take an affirmative action stance. Also, even though some students failed the preliminary examination, none of the students had been terminated due to a failed performance because the students were able to take the preliminary examination twice. In addition, the department must have recognized that passing the preliminary examination the first time is one of many criteria that leads to a competent psychologist. Therefore, Dollinger's (1989) study predicts students who will have less trouble meeting the requirements of the program which does not mean that the students who had problems were not capable of completing the program or becoming a competent scholar. Overall, the clinical psychology program is flexible and allows students to take

extra time to get through a requirement. In essence, entrance requirements are lessened but exit criteria are maintained; therefore, exit variables should be utilized as part of a procedure to assess a students' competence in a particular field.

African-American Students in Historically African-American Colleges and Universities and Caucasian Universities

Bennett and Okinaka (1984) examined the difference in academic performance of African-American students in African-American colleges and universities and Caucasian Universities. They conducted a study on the attrition rate of African-American students at Indiana University and three predominantly African-American universities (Bennett and Okinaka, 1984). Bennett and Okinaka (1984) used their model of African-American student attrition to compare African-American students at predominantly African-American universities to African-American students at Indiana University. Their model (see appendix A) examines the relationship between positive interracial contact experiences before and during college, the presence of a college preparatory curriculum in the participants high

school education, high school GPA, levels of father's education (females only), higher stage of racial identity, and levels of alienation (i.e., less trauma and preparedness). A 145-item questionnaire that assessed racial identity development, interracial contact, experiences of transitional trauma, and general personal data were administered to 145 African-American females and 129 African-American males at Indiana University. The students from the predominantly African-American institutions came from three different schools that contained 144 African-American females and 97 African-American males. The significant findings from this study were that African-American students at predominantly African-American institutions felt they were more familiar with the words and expressions used in college, felt better adjusted to college life, and felt that high school had prepared them well for their college studies. African-American students at Indiana University scored higher on stage of racial identity and college satisfaction, possessed higher GPA's in high school and lower SAT and ACT scores than African-American students at the predominantly African-American institutions. These findings indicate that

African-American students at Indiana University were more open to cultural diversity and had higher GPA's but had lower standardized test scores than the African-American students at predominantly African-American institutions. They also found that SAT and ACT scores were not predictive of the levels of satisfaction and persistence of African-American students. Also, the authors reported that perceived level of satisfaction was strongly associated with African-American students intention to complete their undergraduate degrees. This research points to the need for reform in social support systems on predominantly Caucasian campuses. It appears that when African-American students feel at ease and comfortable in their academic environments they will matriculate and receive their degrees. When African-American students do not feel comfortable in their academic environment, they seem to do poorly and some drop out. Social support programs should foster African-Americans developing relationships with other students and help students cope with difficult social situations. Other researchers have also examined the experiences of African-American students.

Allen (1988) analyzed enrollment and earned degree



trends in the state of Michigan from 1965-1980, he also examined the institutional experience of freshman at the University of Michigan between 1975 and 1983; and assessed the relationship of access, adjustment, and achievement of 700 African-American students in predominantly Caucasian institutions in 1981. He reported that the integration of African-American students into the social life at undergraduate institutions was not a necessary condition for success for African-American students. He found no support for the acculturation hypothesis (i.e., the more a student is acculturated into the majority society the more likely they are to positively adjust to the university environment). He found no empirical support to suggest that more experience with Caucasians in academic settings produced a more positive view of interracial relations (Allen, 1988). Allen (1988) also introduced the concept of "interpersonal accomplishment" to better explain the academic adjustment of African-American students at predominantly Caucasian institutions. This concept suggests that interpersonally accomplished African-American students are more involved in general campus life and their interpersonal skills allow them to manage and maintain

favorable social relationships with all racial groups, faculty and students; however, a paradox to this hypothesis is that African-American students in a national study spoke poignantly about being excluded individually, socially, culturally and academically from activities on campus (Allen, 1988, p.183). Particularly, they reported problems of social adjustment, cultural alienation, racial discrimination and strained interpersonal relations (Allen, 1988). There seems to be a contradiction in promoting interpersonally accomplished students in an unfriendly, if not interpersonally hostile, environment to predict collegiate academic achievement. Consequently, there seems to be a weakness in the interpersonal hypothesis when it tries to explain collegiate academic adjustment in African-American students.

Although the admission and graduation rates of minority students at graduate training programs in the U. S. are disappointing, there are minority students who are adapting to the graduate school environment and succeeding. When examining the undergraduate population, Allen (1988) found that African-Americans' success or failure at undergraduate institutions results from simultaneous effects of student

characteristics, campus relations and attitudes. The profile of students accepted to undergraduate school seem destined for success. In Allen's (1988) study, the students with superior high school records, were highly motivated, and were from relatively high status homes (Allen, 1988). He noted that their "extreme social estrangement from campus life provided the only exception to a largely positive pattern" (Allen, 1988, p. 180); consequently, the pool of students who succeed at the undergraduate level would appear well suited for graduate study; however, the social and academic encounters these students face at the graduate level are disproportionately causing some of them to discontinue their professional education. These social and academic encounters may be due to insufficient affirmative action policies.

#### Affirmative Action

The experiences and retention of minority students in higher education are of national interest at a time when race-specific scholarships and affirmative action are being questioned. On December 4, 1991, the Assistant Secretary for Civil Rights informed the promoters of the Fiesta Bowl,

a college football game held in Phoenix, that to give scholarships on the basis of race was illegal according to the new interpretation of Title VI of the Civil Rights Act (Depalma, 1991). This statement caused an uproar. The president of the National Association of Independent Colleges and Schools said:

The progress we have made in increasing the enrollment of minorities was seriously undermined by the announcement from the Education Department, Office for Civil Rights Act of 1964 if they do not award race-specific scholarships . . . The new Office of Civil Rights policy conflicts with the department's appeal to colleges and universities to find ways to enroll and retain minority students. Its endorsement of voluntary affirmative action rings hollow and effectively ties our hands, preventing us from practicing what the Office of Civil Rights preaches (Department of Education, 1991, p. 46-48).

The possibility of new policies would specifically affect the minority population, a population that has historically encountered discrimination.

As a result of the 1954 Supreme Court's Brown V. Board of Education decision, race-specific scholarships have been encouraged and affirmed by the Congress and upheld by the Judiciary as an important tool to promote equality (Department of Education, 1991). Affirmative action was implemented to rectify past discrimination practices. When examining education, "The U. S. Government recognizes that it is not overt discrimination alone that creates educational disadvantages for minority students, but also the consequences of discrimination: poverty, schools without adequate resources, and entrenched cultural biases" (Department of Education, 1991, p. 85).

Voluntary affirmative action was confirmed by the Supreme Court in the Bakke (1978) decision. The Department of Health, Education, and Welfare, Office of Civil Rights states:

The Department has reviewed the Supreme Court's decision in Bakke and has determined that voluntary affirmative action may include, but is not limited to, the following: consideration of race, color, or national origin among the factors evaluated in selecting students; increased

recruitment in minority institutions and communities; use of alternative admissions criteria when traditional criteria are found to be inadequately predictive of minority student success; provision of preadmission compensatory and tutorial programs; and the establishment and pursuit of numerical goals to achieve the racial and ethnic composition of the student body the institution seeks (Department of Education, 1991, p. 97).

The main crux of affirmative action is to provide accessibility and equality to students who face discrimination and bias in their attempts to pursue educational and vocational opportunities in this country. It "is based on the recognition that removal of structural barriers for minorities, such as the color bar, is not enough to bring about true equality of educational opportunity" (Shea & Fullilove, 1985, p. 938). Minority student progress affects the greater minority populations. The lack of minorities in higher education, and specifically medical school, contributes to lower health status and access to many forms of social service (Shea & Fullilove,

1985). Unfortunately, discrimination in one generation hinders following generations by decreasing the number of resources available to their offspring.

In 1991-92, there was a re-evaluation of minority scholarships when the Bush administration suggested a ban on awards because they were a violation of the Civil Rights Act of 1964. In November of 1993, minority-based scholarships were upheld by Federal District Judge J. Frederick Motz. He set a precedent that if a university presents evidence of the present effects of past segregation on a college campus it can be used to justify minority-based scholarships (Jaschik, 1993). Judge Motz "added that it would be at best naive, and at worst disingenuous to suggest a culture of bigotry inculcated over centuries can be erased by less than 20 years of ameliorative measures" (Jaschik, 1993, p. A27). His above statement seems to speak to the inherent nature and goal of affirmative action policies.

Due to the nature of higher education, "the academic hierarchy has been viewed as an appropriate meritocratic structure that develops the nation's intellectual talents" (Lang, 1987, p. 442). "It has also been suggested that this hierarchy reinforces existing status distinctions" (Lang,

1987, p. 442). Therefore, Caucasian males are disproportionately benefiting from higher education. Higher education produces the educators, policy makers, and leaders of this country, it is vital for minority students to be given the opportunity to receive undergraduate and graduate educational opportunities so they can become leaders this country needs. According to Allen (1988), the shortage of minority advanced degree holders are at crisis proportions as universities, governmental agencies, and the corporate world compete for a shrinking pool of eligible graduates.

Shea and Fullilove (1985) and Evans (1985) believe that the reduction in minority undergraduate and graduate students is due to a decrease in the commitment to affirmative action by the general American society. The practice of many schools, which is to tighten their admissions' criterion without consideration for minority students, is evidence of a decreased sensitivity to minority student concerns (Shea & Fullilove, 1989; Young, 1992).

Affirmative action has been challenged and as a result, previous advances that had been made have been rescinded. One important issue is the number of reverse discrimination cases in the 1970's (i.e., Bakke and DeFunis case; for more



information of the case read Smith, 1984) that encouraged the dismantling of "quota systems." In brief, reverse discrimination can be defined as a process when a Caucasian person feels that he/she has been denied opportunities due to his/her race and the opportunities are given to undeserving minority group members. Some Caucasian students believe they are overlooked for less deserving African-American, Latino and Asian students (Olivas, 1993). They believe they are being punished for historical acts of discrimination they did not commit (Weissberg, 1993). In addition, their views allow them to forget that minority groups and women were enslaved, oppressed, and denied opportunities. This "historical amnesia only enables critics to deracinate a race drenched process but convinces them that non-racial measures of merit were always fairly defined and administered" (Olivas, 1993, p. 18). In contrast, Cornel West, a professor at Princeton University and supporter of affirmative action, points out that preferential treatment has always been a part of the educational process, and administrative policy (Kazi, 1993). For example, athletes are given preferential consideration due to their athletic ability; as well as, alumni sons who

have had tremendous preference in getting into different institutions. That African-Americans are specifically targeted makes Cornel West suspicious especially when empirically women have been the major benefactors of affirmative action (Kazi, 1993). Cornel West believes that equating African-American students with affirmative action is "simply another way of perpetuating the ugly stereotype of associating Black folk with inferiority" (Kazi, 1993, p. 28). This offers one explanation as to why in many circles, the assumption is that the Caucasian man is qualified and any person of color or a woman is appointed because of affirmative action, "political correctness," or politics.

A second factor that has hindered the progress of affirmative action programs, is the reduction in financial aid (Evans, 1985; Shea & Fullilove, 1989). Financial aid has not risen as fast as college cost which reflects the national attitude toward providing open access to higher education (Young, 1992). In addition, when the federal government reduced their financial support for education, so did many colleges (Young, 1992). Between 1974 and 1981, financial aid from colleges or the federal government dropped from 2.28 million to 1.48 million, and the number of

medical students receiving awards decreased from 1840 to 1122 (Shea & Fullilove, 1985). The link between minority students enrollment and financial aid is crucial. Without economic support most minority students are unable to attend institutions of higher learning.

### Rationale

In the 1990's, the opinion about racial inequality and access to higher education has changed (Allen, 1988). Minority demands for racial equality are tempered by limited financial aid, the economic recession, the nation's deficit, and ambivalence about the necessity of retribution for inequalities of the past. Higher education has moved from a time in the 1960's when there were endless expansions, opportunities, and optimism to a time when financial and other resources are limited and restrictions are more rigorous. This condition has diverted the attention from racial equality to survival for many people. Reverse discrimination is synonymous to the idea of survival for many Caucasian Americans. Some Caucasian students feel they have been denied educational opportunities due to affirmative action (Collison, 1992). Incidents of racial harassment, bigotry, and racial hostilities have become more

prominent on college campuses. The universities are responding by re-dedicating their commitment to racial equality. Although many of the responses by universities are symptomatic resolutions and not institutional reform, this response has prompted a re-examination of affirmative action.

Because of the recent events that deal with minority admission, and inevitably retention, it becomes crucial to assess the present admission and retention rates of minority students at our college campuses. At Loyola University Chicago, African-American undergraduate enrollment plunged by 57% between 1984-1990, while Asian-American undergraduate enrollment increased by 85% (Schiltz, 1991). Given the pattern of the undergraduate admission rate, it brings into question if a similar phenomenon has occurred at the graduate level at Loyola University Chicago. Bennett and Okinaka (1984) suggest that persistence, performance, and predictive variables may be institutionally specific; therefore, this study will analyze the admission and attrition rate of minority students in graduate school at Loyola University Chicago from 1988-1993 along with the predictive power of several factors associated with academic

success and failure.

## Hypothesis

The following hypotheses will be examined:

Hypothesis I - The undergraduate grade point average of Loyola University Chicago minority graduate students will be more predictive of first year academic grade point average than Graduate Record Examination Verbal and Quantitative scores, perceived feelings of social support, spirituality, previous experience in inter-racial settings and financial assistance.

Hypothesis II - The undergraduate grade point average, perceived level of stress and perception of university environment of Loyola University Chicago minority graduate students will be more predictive of rates of academic matriculation in graduate school than Graduate Record Examination Verbal and Quantitative scores, perceived feelings of social support, spirituality, previous experience in inter-racial settings and financial assistance.

Hypothesis III - Loyola University Chicago minority graduate students who indicate having a mentor at Loyola University Chicago will have higher first year graduate grade point averages, more financial assistance and faster rates of

academic matriculation than Loyola University Chicago minority graduate students who do not have a mentor at Loyola University Chicago.

Hypothesis IV - Loyola University Chicago minority graduate students who indicate having minority graduate students or faculty members available to them during their graduate training will possess higher first year graduate grade point averages, lower perceived levels of stress and faster rates of academic matriculation than Loyola University Chicago minority graduate students who did not have minority graduate students or faculty members available to them in their training programs.

Hypothesis V - Loyola University Chicago minority graduate students who are not employed while attending graduate school (throughout the academic year) will possess higher first year graduate grade point averages and faster rates of academic matriculation than Loyola University Chicago minority graduate students who were employed while attending graduate school.

## CHAPTER III

### METHOD

#### Subjects

A random sample of 280 ethnic/racial minority graduate students attending Loyola University Chicago participated in this project. Table 1 contains a report of the demographic make up of the sample.

Table 1

List of Demographic Variables, Frequencies and Percents

Variables	N	%
Total Subjects	72	100
Gender		
Male	18	25
Female	54	75
Race/Ethnicity		
African-Americans	43	59.7
Asians/Pacific Islanders	14	19.4
Latinos/Hispanics	15	20.8



Table 1 (continued)

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Marital Status		
Single	30	41.7
Married	29	40.3
Committed Relationship	7	9.7
Divorced	4	5.6
Widowed	2	2.8
Graduate programs		
Masters degree	40	56.3
Doctoral degree	30	42.3
Other	1	1.4
Degree Status		
Completed program	18	25
Not completed program	54	75
Graduate Program		
School of Business	7	9.7
Graduate School	33	45.8
Institute of Industrial Relations	6	8.3
School of Social Work	10	13.9
Graduate School of Nursing	2	2.8
School of Education	10	13.9
Institute of Pastoral Studies	4	5.6
Student Status		
Full-time Students	16	23.2
Part-time Students	31	44.9
Not Enrolled/Taking Time Off	3	4.3
No Longer a Student	19	27.5

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### Measures

Graduate Student Survey (GSS). The GSS was created specifically for this study. The instrument was designed to gather information about minority graduate student

experiences. The survey instrument contains three demographic questions regarding gender, marital status, and race/ethnicity. The instrument also contains items assessing perceived level of stress, degree of spiritual involvement, reasons for possibly leaving or persisting in graduate school, level of comfort or discomfort with university social environment, and utilization of financial aid. The GSS also contains a series of questions in the following six areas: mentor relationship, Caucasian interactions in school, Caucasian faculty-student interactions, Caucasian student-minority student interactions, minority graduate student experiences, and previous interracial experiences. The majority of the items of the GSS are structured using a Likert format. Participants are asked to select responses ranging from 1 "Overwhelmingly Stressful" to 4 "Never Stressful." The survey takes approximately 15 minutes to complete. Two subscales (i.e., minority graduate student experiences and previous interracial experiences) are scored by adding the questions in that area and taking the average of the composite of the scores. The GSS is presented in Appendix C.

Supplementary Admissions Questionnaire (SAQ). The SAQ is a 18 item scale developed by Tracey and Sedlacek (1984) to be a predictor of collegiate success (i.e., grade point average and continued enrollment). The SAQ contains eight subscales that measure positive self-concept or confidence, realistic self-appraisal, understanding of and ability to deal with racism, preference for long-range goals, availability of strong support persons, successful leadership experiences, and demonstrated community service. Each item is structured in a Likert format, where individuals are asked to respond using a five-point scale (i.e., strongly agree to strongly disagree) to a series of statements. Higher scores are indicative of strong attitudes that concur within the subscale area being examined, while lower scores are indicative of attitudes that disagree with the subscale area. Scores are summed across items for each subscale. The SAQ takes approximately 10 minutes to complete. The SAQ is presented in Appendix D.

The SAQ instrument was evaluated for both reliability and construct validity by Tracey and Sedlacek (1984). The test-retest reliability with a two week test-retest

correlation (N=18) for the items ranged from .70 to .94 with a median correlation of .85 (Tracey & Sedlacek, 1984). To test construct validity, separate factor analyses were conducted and showed fairly similar structures for each racial group. Construct validity was found for six of the seven variables: leadership (Factor I), understanding of and ability to deal with racism (Factor II), preference for long-range goals (Factor III), realistic self-appraisal (Factor IV), support for college plans (Factor V), and self-confidence (Factor VI and VII). Knowledge acquired in a field (Factor VIII) assesses general familiarity with academia that is not related to academic self-confidence (Tracey & Sedlacek, 1984).

Perceived Social Support From Friends and Family (PSS).

The PSS is a 40 item scale developed by Procidano and Heller (1983) to measure the extent to which an individual perceives that his/her needs for support, information, and feedback are fulfilled by friends (PSS-Fr) and family members (PSS-Fa). The PSS-Fr and PSS-Fa are presented in Appendix E and F, respectively.

The PSS-Fr is a 20 item scale and refers to feelings

and experiences which occur to most people at one time or another in their relationships with friends. Participants are asked to respond to 20 statements by selecting Yes, No, or Don't know.

The PSS-Fa is also a 20 item scale and refers to feelings and experiences which occur to most people at one time or another in relationships with their families. Participants are also asked to respond to 20 statements by selecting Yes, No, or Don't know. The combined PSS-Fa and PSS-Fr takes approximately 15 minutes to complete. The items for both scales are scored such that the responses are indicative of perceived social support. A positive response was scored as +1, so that scores ranged from 0 to 20. Higher scores indicated greater levels of perceived support. The "Don't Know" category is not scored. In the present study, the total scores for friend and family were used.

Procidano and Heller (1983) report Cronbach alphas of .88 (PSS-Fr) and .90 (PSS-Fa). The creators of the scales also report that separate factorial analyses with orthogonal factor rotations indicated that each scale was composed of a single factor.

## Procedure

From a roster of 720 ethnic minority graduate students attending Loyola University Chicago, 280 were chosen randomly to participate in the study. Students with foreign addresses, post office boxes and two active addresses were excluded from the study. Participants were mailed a cover letter, the survey instrument, a request for feedback card, and a self-addressed stamped envelope. The letter explained that they were being asked to participate in a research project examining psycho-social variables related to graduate school education. The students were informed that their participation was voluntary and if they had questions they could contact the principal investigator. The students were asked to complete the survey and return it in the postage paid envelope. A follow-up postcard was sent as a reminder to the recipients three weeks after the initial mailing. Of the 280 surveys mailed, 72 were returned which resulted in a return ratio of 26%.

## CHAPTER IV

### RESULTS

Prior to statistically evaluating the formal hypotheses of the study, a series of analyses of variance (ANOVA) were performed to determine if significant group differences were related to the demographic make-up of the sample. The following variables were investigated: gender, marital status, M.A. vs. Ph.D. program, ethnicity, degree status and graduate program. The analyses used the following dependent variables: personally experiencing discrimination or instances of differential treatment, level of spirituality, first semester graduate grade point average, perceived levels of stress and rates of academic matriculation.

To examine the relationship of gender and experiencing discrimination or instances of differential treatment in graduate school, an ANOVA was conducted. The results of the ANOVA revealed that there was a statistically significant difference among females who were seeking M.A. or Ph.D. degrees ( $F(1,50) = 8.18, p \leq .01$ ). Minority females

enrolled in Ph.D. programs ( $M = 2.25$ ,  $SD = .61$ ) reported experiencing more discrimination and instances of differential treatment than minority females enrolled in M.A. programs ( $M = 1.75$ ,  $SD = .65$ ).

In addition, there is a statistically significant difference between males and females students enrolled in Ph.D. programs ( $F(1,28) = 4.65$ ,  $p \leq .05$ ). Females enrolled in Ph.D. programs ( $M = 2.25$ ,  $SD = .61$ ) reported encountering more instances of discrimination and differential treatment than their male counterparts ( $M = 1.67$ ,  $SD = .52$ ).

Analysis of variance ( $F(1,13) = 5.92$ ,  $p \leq .05$ ) also revealed that males enrolled in doctoral programs ( $M = 3.81$ ,  $SD = .22$ ) achieved higher first semester graduate grade point averages than minority males enrolled in M.A. programs ( $M = 3.18$ ,  $SD = .55$ ).

To examine the relationship between various masters level programs and gender, an ANOVA was performed. The results revealed there was a statistically significant difference between gender and masters level programs ( $F(1,34) = 9.32$ ,  $p \leq .01$ ). Females enrolled in M.A. level programs ( $M = 3.67$ ,  $SD = .38$ ) achieved higher first semester graduate grade point averages than their male peers ( $M =$



3.18, SD = .55).

With regard to racial/ethnic differences, ANOVA ( $F(1,64) = 3.82, p \leq .05$ ) revealed that African-American graduate students ( $M = 3.71, SD = .38$ ) achieved higher first semester graduate grade point averages than their Latino(a) and Asian peers ( $M = 3.50, SD = .48$ ). Results also revealed ( $F(1,69) = 3.96, p \leq .05$ ) that African-Americans ( $M = 2.60, SD = .70$ ) indicated experiencing greater levels of perceived stress than their Latino(a) and Asian graduate student counterparts ( $M = 2.24, SD = .79$ ).

The last preliminary analysis indicated that ( $F(1,69) = 3.96, p \leq .05$ ) minority males who did not receive financial assistance ( $M = 3.25, SD = .50$ ) reported experiencing greater levels of perceived stress than minority males who did receive financial assistance ( $M = 2.36, SD = .50$ ).

### Predictors of Graduate School Academic Performance

Hypothesis I stated that undergraduate grade point averages of Loyola University Chicago minority graduate students would be more predictive of first semester graduate academic grade point averages than Graduate Record Examination Verbal and Quantitative scores, perceived

feelings of social support, levels of spirituality, and previous interracial experiences. Unfortunately, 71% of minority students that participated in this study did not report Graduate Record Examination scores; consequently, this variable could not be included in the analyses. To analyze Hypothesis I, a multiple regression analysis was performed with first semester graduate grade point average as the criterion variable and undergraduate grade point average, perceived feelings of social support, level of spirituality and previous interracial experiences serving as predictor variables. Rates of academic matriculation were calculated by number of years in graduate school and credit hours in graduate school.

The multiple regression analysis indicated that undergraduate grade point average, perceived feelings of social support, level of spirituality and previous interracial experiences were not statistically significant predictors of first semester graduate grade point average. The results of these analyses are presented in Appendix G.

Hypothesis II stated that undergraduate grade point averages, perceived levels of stress and perceptions of university social environment for minority graduate students

at Loyola University Chicago would be more predictive of rates of academic matriculation in graduate school than perceived feelings of social support, levels of spirituality, previous interracial experiences and presence or absence of financial assistance. To analyze Hypothesis II, step-wise regression analyses were performed with rate of academic matriculation as the criterion variable and undergraduate grade point averages, perceived levels of stress and perceptions of university social environment serving as predictor variables. Also, t-test ratios were computed to determine if significant group differences (i.e., students with financial aid vs. students without financial aid) were related to undergraduate grade point average and rates of academic matriculation.

In the step-wise regression analyses, undergraduate grade point averages, perceived feelings of social support, levels of spirituality, previous interracial experiences, perceived levels of stress, and perceptions of university social environment were not predictive of the rates of academic matriculation. A summary of these results is resented in Appendices H and I.

### Financial Aid

Significant group differences in the number of credit hours ethnic minority students achieved was directly related to the use of financial aid ( $t = -2.39, p \leq .05$ ). Students who received financial aid ( $M = 40.71, SD = 24.15$ ) acquired more credit hours than their peers who did not receive financial support ( $M = 28.93, SD = 13.52$ ). No statistically significant differences were found between participants who received financial assistance and those who did not with first semester graduate grade point average, years attending graduate school, and undergraduate grade point average. These results are presented in Appendix J.

### Effects of Graduate Mentors

Hypothesis III stated that Loyola University Chicago minority graduate students who indicated having a mentor at Loyola University Chicago would have higher first semester graduate grade point averages, more financial assistance and faster rates of academic matriculation than Loyola University Chicago minority graduate students who did not have a mentor. To analyze Hypothesis III, three t-tests were performed for the two groups (i.e., students with

mentors vs. students who do not have mentors) and the following dependent variables: first semester graduate grade point average and rates of academic matriculation. Also, a chi-square analysis was performed with presence or absence of financial assistance and presence or absence of a mentor to determine the relationship between the variables. In the present sample, 67% of the minority students reported having a mentor.

The results of the analyses indicated a statistically significant difference between the presence or absence of a mentor and rate of academic matriculation (credit hours) ( $t = -1.98, p \leq .05$ ). Students who reported having a mentor ( $M = 41.88, SD = 20.02$ ) completed more credit hours in graduate school than their cohorts who did not have a mentor ( $M = 30.35, SD = 26.75$ ).

Further investigation revealed that there was a statistically significant difference between the presence or absence of a mentor and overall graduate grade point average ( $t = -1.96, p \leq .05$ ). Students who reported having mentors ( $M = 3.63, SD = .300$ ) possessed higher overall graduate grade point averages than students who did not have mentors ( $M = 3.57, SD = .310$ ). However, no statistically

significant differences were found between the presence or absence of a mentor and first semester graduate grade point average and years attending graduate school. These results are presented in Appendix K.

Chi-square analyses also indicated that no statistically significant relationship existed between presence or absence of a mentor and the awarding of financial aid. A summary of these results are presented in Appendix L.

#### Effects of Minority Student Relationships

Hypothesis IV stated that Loyola University Chicago minority graduate students who indicate having minority graduate students or faculty members available to them during their graduate training will possess higher first year graduate grade point averages, lower perceived level of stress and faster rates of academic matriculation than Loyola University Chicago minority graduate students who did not have minority graduate students or faculty members available to them in their training programs. Unfortunately only 22% of the sample had a minority mentor.

As a result of the lack of minority mentors, Hypothesis

IV was recast and examined as follows: Hypothesis IV stated that Loyola University Chicago minority graduate students who indicated having more positive minority graduate student experiences at the university will possess higher first semester graduate grade point averages, lower perceived levels of stress and faster rates of academic matriculation than Loyola University Chicago minority graduate students who indicated having less positive minority graduate student experiences. Minority graduate student experiences were determined by combining the scores for the four questions on the GSS that assess minority graduate student relationships. For example, students were asked to rate the availability of other minority students to discuss school related issues. Students who reported having minority students available to discuss school related issues, provide encouragement, give helpful advice and discuss personal issues often or always were placed in the group which had more positive minority graduate student experiences, and students who reported that they never or rarely had minority students available to discuss school related issues, provide encouragement, give helpful advice and discuss personal issues at Loyola University Chicago were placed in the less

positive minority graduate student experience group. To analyze the new hypothesis, a series of t-tests were performed for the two groups (high vs. low minority graduate student experiences) and the following dependent variables: first semester graduate grade point average, perceived level of stress, and rates of academic matriculation.

The aforementioned analyses revealed significant effects for perceived levels of stress, ( $t = -2.05$ ,  $p < .05$ ). Students who had positive experiences with other minority graduate students ( $M = 2.491$ ,  $SD = .742$ ) reported experiencing less stress than their minority graduate student counterparts ( $M = 2.00$ ,  $SD = .742$ ) who did not have positive experiences with other minority graduate students. No significant effects were found regarding the rates of academic matriculation and first semester graduate grade point average. These results are presented in Appendix M.

#### Effects of Employment

Hypothesis V stated that Loyola University Chicago minority graduate students who are not employed while attending graduate school (throughout the academic year) will possess higher first semester graduate grade point



averages and faster rates of academic matriculation than Loyola University Chicago minority graduate students who were employed while attending graduate school. To analyze Hypothesis V, three t-tests were performed for the two groups (i.e., students who are not employed while attending graduate school throughout the academic year vs. students who are employed while attending graduate school throughout the academic year) and the following dependent variables: first semester graduate grade point average and rates of academic matriculation.

The above stated analyses revealed a statistically significant one-tail difference between employment status and years in graduate school ( $t = -1.78, p \leq .05$ ). Minority graduate students who were employed while attending graduate school attended graduate school for more years ( $M = 3.40, SD = 2.28$ ) than their peers who were not employed ( $M = 2.23, SD = 1.09$ ). No statistically significant differences were found with regard to first semester graduate grade point average and rate of academic matriculation (years). A summary of these results are presented in Appendix N.

Further investigation revealed a statistically significant one-tail t-test difference between employment

status and overall graduate grade point average ( $t = 1.74$ ,  $p \leq .05$ ). Students who were employed while in graduate school ( $M = 3.55$ ,  $SD = .323$ ) achieved lower overall graduate grade point averages than students who were not employed ( $M = 3.72$ ,  $SD = .209$ ) while attending graduate school.

### Additional Predictors of Academic Performance

To further clarify the relationship between the psychosocial variables assessed in this project and minority student attrition, a step-wise regression analysis was performed with overall graduate grade point average as the criterion variable and presence or absence of employment, ability or inability to financially support your education without financial aid, presence or absence of an M.A. degree, presence or completion of graduate program, perceived feelings of social support, perceived level of stress, presence or absence of a mentor, presence or absence of financial assistance and the non-cognitive variables as predictor variables.

This step-wise regression analysis produced a three variable model that explains 51% of the variance. The step-wise regression analysis indicated that first semester

graduate grade point average accounted for 38% of the variance. The ability to contend with racism, a non-cognitive variable, accounted for 9% of the variance, followed by mentor status which accounted for 5% of the variance. These results were significant below the .01 level. Mentor status was a dichotomous variable with presence of a mentor being included in the regression analysis. Therefore, minority students who have a mentor have a higher overall graduate grade point average than minority students who do not have a mentor. The results of the step-wise regression analysis are presented in Table 2.

Table 2

Significant Regression Analysis for  
Overall Graduate Grade Point Average

Step	Variable	Beta	DF	r <sup>2</sup>	F	p ≤
1	First Semester Grade Point Average	.428	70	.377	42.45	.0001
2	Understanding of Racism	.014	69	.088	30.02	.001
3	Presence of Mentor	.134	68	.048	23.908	.01
	(Constant)	1.861				

## CHAPTER V

### DISCUSSION

The intent of this study was to assess the relationship between minority graduate student attrition and the most salient psycho-social variables identified in the literature that appear to be associated with minority student success or failure in graduate school. Bennett and Okinaka (1984) suggest that these variables may vary due to the social environment at educational institutions; accordingly, the psycho-social variables that are unique to Loyola University Chicago were examined.

It was hypothesized that undergraduate grade point averages would be more predictive of first semester graduate grade point averages than perceived feelings of social support, levels of spirituality, and previous interracial experiences. The findings of this study did not support this hypothesis. Due to social desirability, it is possible that the self-reported grade point averages for the study were inflated. In addition, perceived levels of

social support, levels of spirituality, and previous interracial experiences did not support the premise of this hypothesis. Most of the minority students reported higher levels of social support which may lead to very little variability when analyzing this variable. Limited variability within the scores for perceived social support for friends and family decreased the probability of significant findings. For perceived social support from friends, 66.2% of the respondents' scores ranged between 12 and 14 on a 20 point scale (see Appendix O). For perceived social support from family, 57.3% of the scores ranged from 13-15 on a 20 point scale (see Appendix P). Fortunately, a significant number of minority graduate students are reporting that they receive support from their friends and family members. However, the results of this study seem to suggest that this support may not play a significant role in academic achievement at the graduate level.

Unlike undergraduate populations at many universities, 45% of the minority graduate students who participated in this study attended school on a part-time basis with only 23% attending full-time (see Table 1). Therefore, being a part-time student may be socially different from being a

full-time student. Primary social support systems may be developed outside of the university environment for part-time students. Furthermore, part-time students' previous interracial experiences may not be as crucial since social interactions may be limited to once or twice a week for students who are taking one or two classes a semester. In addition, the social expectations may be different for part-time students. Part-time students may fulfill their social needs in other environments and may not expect or seek social support from the university environment.

Further investigation revealed that African-American graduate students had higher first semester graduate grade point averages than Latinos and Asians. In addition, minority females in masters' programs achieved higher first semester graduate grade point averages than minority males in masters' programs. Furthermore, minority males in doctoral programs possessed higher first semester graduate grade point averages than minority males in masters' programs. In the sample, African-Americans made up 60% of the minority population (see Table 1). In addition, minority females made up 75% of the sample (see Table 1). It may be that these individuals provide mutual support to

one another in a manner that enhances their academic performance and well-being. Hill, Bahniuk, & Dobos (1989) define collegial/task support and collegial/social support to describe the informal peer relationships that provide opportunities for encouragement to complete goals, exchange ideas, opportunities to listen to each other's personal problems and provide support when criticized by others. It is possible that collegiate/task and collegiate/social support is more likely to occur for African-American and minority female students at Loyola University Chicago due to the critical mass that is present at the university.

First semester graduate grade point averages, understanding and dealing with racism and having mentors were significant predictors of overall graduate grade point averages. First semester graduate grade point averages accounted for 38% of the variance which suggests that minority students that are able to do well in the first semester of graduate school also do well throughout their graduate school careers. Understanding and dealing with racism is a non-cognitive factor that represents a person who is a "realist based upon personal experiences of racism and ... is able to handle racist systems" in an appropriate



manner (Tracey & Sedlacek, 1984). This high level social interpersonal skill appears to be an important factor in how minority graduate students effectively respond to racism and bias on college campuses. Allen (1988) has proposed that "interpersonally accomplished students" are better able to adjust to college life. This finding suggests that "interpersonally accomplished students" that can recognize and deal with racist systems are able to perform better academically and socially in predominantly Caucasian institutions.

It was hypothesized that minority graduate students that have a mentor would have higher first semester graduate grade point averages, more financial assistance and faster rates of academic matriculation. As hypothesized, the findings of this study suggest that minority graduate students with mentors completed more credit hours in graduate school than students who did not have a mentor in graduate school. Further analysis determined that minority students with mentors achieved higher overall graduate grade point averages. Taken together, the results suggest that minority graduate students who develop mentoring relationship(s) with faculty members are able to persist in

graduate school longer and achieve higher graduate grade point averages than minority graduate students who do not develop these relationships. Supportive faculty members seem to be a crucial link in assisting minority students with their academic achievements in graduate school.

Redmond (1990) acknowledges that mentors may edit papers, fine tune other academic skills, interpret bureaucratic jargon and provide a respected third party opinion that increases the probability of successful matriculation. One important task of mentoring is spending time helping students to improve their academic skills which will in turn, elevate their grades and self esteem. For some racial-ethnic minority students, mentoring of this nature may be extremely important to their academic success.

An important aspect of mentoring relationships is informal and formal relationships. Informal mentoring relationships are relationships that develop but are not structured or recognized by the organization, while formal mentoring relationships are structured programs that are managed by the organization and proteges are typically assigned to their academic or professional mentor (Chao, Walz, and Gardner, 1992). Chao, et. al (1992) believe that

informal mentoring may be more beneficial than formal mentoring because it grows out of personal relationships and mentors may be more devoted and dedicate more attention to people they judge to be "promising" and worthy of extra attention.

It was hypothesized that undergraduate grade point averages, perceived levels of stress, and perceptions of university social environment would be more predictive of rates of academic matriculation than perceived levels of social support, levels of spirituality, previous interracial experiences, and the presence or absence of financial aid. The findings of this project did not support the aforementioned hypothesis. Again, this may be due to the different social experiences of part-time versus full-time students; however, results revealed that students who received financial aid acquired more credit hours in graduate school than students who did not receive financial aid. In addition, minority males who received financial aid experienced lower levels of stress than minority males who did not receive financial aid. The nature of these findings suggest that for some minority males, academic financial worries constitute a significant degree of the emotional

dysphoria associated with graduate study. This supports Shea and Fullilove's (1985) work which suggest that financial aid is crucial to the enrollment and matriculation of minority students pursuing advanced degrees.

In contrast, mentor status was not related to first semester graduate grade point averages possibly as a result of students not identifying mentors or developing supportive relationships at this early point in their graduate school careers. In addition, mentor status was not related to financial aid status. This finding may be limited by the disproportionate distribution of students on financial aid (i.e., 76.4% of minority students received financial aid while only 22.2% did not receive financial aid). Pursuant to the finding, that most minority students received financial aid, mentoring relationship may not effect receiving financial aid but it may effect the types of financial aid that is received. This may be the case since faculty members often have grants and access to other funding sources that may be made available to students they mentor. Mentors may typically choose students who they work with and are familiar with their abilities to work on grants and to receive research assistantships.

It was also hypothesized that minority graduate students who indicate having more positive minority graduate students experiences at the university will possess higher first semester graduate grade point averages, lower perceived levels of stress and faster rates of academic matriculation than Loyola University Chicago minority graduate students who indicated having less positive minority graduate student experiences. Minority graduate students who reported experiencing more positive relationships with other minority graduate students indicated that they felt less stress in graduate school than their counterparts who had less positive experiences; therefore, the social support that other minority students are offering to each other seems to promote a more viable and less stressful academic environment. Fleming (1984) suggests that a supportive environment offers students an opportunity to develop friendships that prevent vulnerability to stress, provide opportunities for social integration and participation in campus life and opportunities to experience a sense of progress in the school environment.

In contrast, minority graduate student relationships

were not significantly related to first semester graduate grade point averages. It must be noted that students may not establish relationships very early in the semester, as a result; these newly formed relationships may not be significant enough at this juncture to impact the interpersonal and academic functioning of the students. In addition, rates of academic matriculation were not related to minority student relationships with other minority students. Therefore, even though relationships with other minority students help to reduce stress; these relationships may not contribute to a student's ability to complete his/her academic requirements (i.e., comprehensive examination, thesis, dissertations, etc.).

African-American graduate students report experiencing more stressful experiences in graduate school than their Latino(a) and Asian peers. Racial minorities, particularly African-Americans, may experience more stress due to the social climate and increasing instances of ethno-violence on college campuses. When examining statistics of reported ethno-violence by racial background and campus, it was found that at Cortland College, State University of New York that Latinos (60%) reported more ethno-violence followed by

African-Americans (50%) and Asians (33%) (Ehrlich, 1995). While at The State University of New Jersey, Rutgers, African-Americans (33%) reported more ethno-violence followed by Latinos (25%) and Asians (18%) (Ehrlich, 1995). Ehrlich (1995) believes that the difference in reported experiences of ethno-violence may be due to differences in size, visibility of the groups and unique situations targeted at each campus. Since 72% of minority graduate students reported experiencing discrimination or instances of differential treatment, discrimination may account for the increased levels of stress (Hughes, 1987). Furthermore, African-Americans are the least economically advantaged and most visible racial minority group; the combination of encountering economic stressors and experiencing discrimination may produce situations that are inherently more stressful (Churaman, 1992; Rich, 1991; Ehrlich, 1995). Loo & Rolison (1986) discuss the "theory of perceived competition or threat to cultural dominance." The theory states that the larger the minority group the greater the perceived threat to Caucasians which leads to greater discrimination against the minority group. Given that African-Americans constituted the largest group of minority

students among this sample, Loo & Rolison's (1986) conceptualization helps to explain why African-Americans reported experiencing greater levels of stress than their Latino or Asians peers.

Although, a significant percentage (72%) of the minority students in the study reported they experienced discrimination and differential treatment, minority females enrolled in Ph.D. programs indicated that they encountered more instances of discrimination than their minority female peers in M.A. programs and minority male Ph.D. counterparts. One explanation is that minority males may be reluctant to report experiences of discrimination. Another explanation is that minority females are experiencing more discrimination due to their double minority status (i.e., African-American and female). Pak, Dion, and Dion (1991) have proposed the "Double Jeopardy Hypothesis" which states that being a racial minority and a female in a white male world leaves these individuals subject to a double disadvantage. The increased experiences of discrimination by minority female Ph.D. candidates may be caused by the hierarchical structure of higher education that reinforces existing status distinctions which are not typically open to



women or racial minorities (Lang, 1987). In addition, Shea and Fullilove (1985) and Evans (1985) believe that the reduction in minority undergraduate and graduate students is due to decreased commitment to affirmative action by the general American society. Moreover, minority females may be experiencing a backlash from their majority peers who believe they should not or do not deserve to be in graduate school and are only recipients of affirmative action benefits (Olives, 1993). The recent negative climate and intolerance toward affirmative action and minorities may cause hostility and animosity between minority and majority students which may explain, in part, why minority females are experiencing more discrimination.

It was hypothesized that minority graduate students who were not employed would have higher first semester graduate grade point averages and faster rates of matriculation than minority graduate students who were employed while attending graduate school. The results of the study indicated that minority graduate students who were employed during the academic year achieved lower overall graduate grade point averages and required more time to complete their graduate degrees than their peers who did not have to maintain a job.

This would suggest that minority graduate students who are not burdened with employment and monetary concerns are able to perform better academically and complete their degrees in a more timely and efficient manner possibly due to having more time to study, complete assignments and participate in research.

#### Limitations and Future Research

As with all social science research, this study possesses several limitations. The study is weakened by a narrow sample size, self-selection bias and range restrictions on several instruments. These factors hinder the generalizability of this study. Unfortunately, accurate scores for grade point averages and graduate record examination scores could not be obtained, which have resulted in responses that were subject to social desirability.

Future research investigating the factors associated with minority graduate student retention and matriculation should explore the different experiences of minority part-time and full-time students. The findings of this study suggest that their academic, social, and interpersonal experiences vary considerably; systematic investigation of

these differences are strongly warranted. Another limitation of this project was that age and program affiliation were not methodically examined in reference to the psycho-social variables previously identified to be associated with minority graduate student academic performance. Future studies should incorporate these variables in their overall designs.

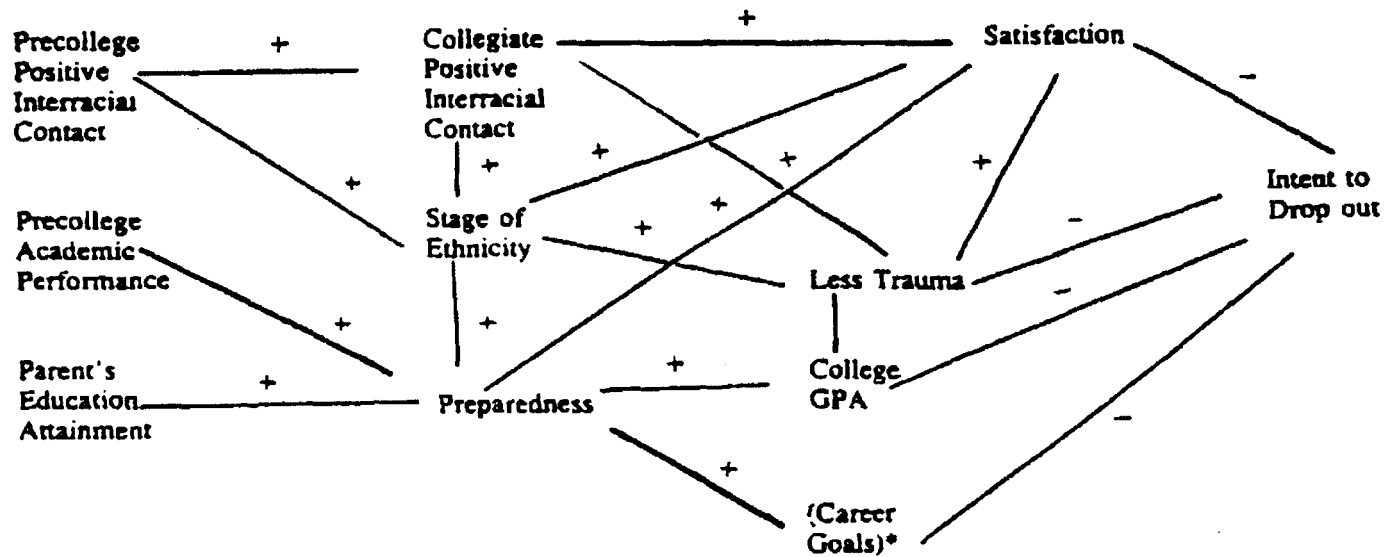
### Summary

Results of this study support the works of Evans (1985), Allen (1988) and Shea & Fullilove (1985) who all found that financial aid is very important to the academic performance of minority graduate students. In addition, social support, which is illustrated by mentoring relationships and positive minority student relationships, may be necessary elements for minority students to thrive and buffer the stressors they encounter in graduate school. The findings from this study also suggest that minority graduate students who are able to understand and develop more sophisticated strategies to deal with discrimination tend to perform better academically. Moreover, the results indicated that minority females report experiencing more

incidents of discrimination than their minority student peers.

APPENDIX A

CONCEPTUAL MODEL OF BLACK STUDENT ATTRITION



Key: — direction of effect  
 "+", "-" effect presumed to be positive or negative

\*Career goals were included in the original model. Due to a high number of missing cases, this variable was dropped from the analysis. Prior to the deletion it was established that no significant relationships existed between career goal certainty and any of the other variables in the model.

Figure 1 A Conceptual Model of Black Student Attrition

Reprinted, by permission, from Christine Bennett. Taken from Bennett, C. & Okinaka, A. (1984). Explanations of student attrition in predominantly White and predominantly Black universities. *Integrated Education*, 22, 73-80.

APPENDIX B  
COVER LETTER

September 15, 1994

Dear Colleague,

My name is Denise Daniels. I am a minority graduate student completing my master's thesis in clinical psychology at Loyola University Chicago. I am investigating factors related to the retention and attrition of minority students in graduate training programs. As a fellow graduate student, I am very interested in finding out about your graduate school experiences.

Questionnaires are enclosed. Please answer ALL questions. This should take approximately 30 minutes. I would like to point out that ALL responses to the questionnaire will remain confidential. In order to ensure this, I DO NOT want you to identify yourself at any point on any of the questionnaires. By ensuring confidentiality, we hope that you feel you can answer the questions in an open and honest manner. The numbers on the questionnaires are to keep the questionnaires together. In that way, we hope the results of the present survey will accurately reflect the opinions, thoughts, and reactions of minority graduate students at Loyola University Chicago. If you would like feedback regarding the results of the study, complete the enclosed postcard. Include your name and address and return the card separately in order to maintain your confidentiality.

I would appreciate it if you could respond by October 15, 1994. Upon completion of the questionnaire, you will have fulfilled your obligation. Thank you for taking the time to participate in this survey. If you have any questions, please contact Denise Daniels (312) 508-3001.

Sincerely yours,

Denise Daniels

Enclosure: Questionnaire and return envelope  
Feedback card



APPENDIX C  
GRADUATE STUDENT SURVEY

## Graduate Student Survey

Thank you for participating in this project. **DO NOT PLACE YOUR NAME OR ANY OTHER IDENTIFYING INFORMATION ON THE SURVEY.** By keeping the survey anonymous, I hope that you will feel as though you can answer all the questions honestly; however, if you feel that you cannot answer a specific question or would like to stop, please feel free to do so. Again, thank you for your assistance in this important project. If you are no longer a student at Loyola please answer the following questions from your graduate school experiences.

**BACKGROUND INFORMATION**

Please check on answer to the following questions:

1. Are you male \_\_\_\_\_ or female ? \_\_\_\_\_

2. What is your race/ethnicity?

\_\_\_\_\_ African-American (Black)

\_\_\_\_\_ Latino (Latin American)

\_\_\_\_\_ Caucasian (not of Hispanic origin)

\_\_\_\_\_ American Indian (Alaskan native)

\_\_\_\_\_ Asian (Pacific Islander)

\_\_\_\_\_ Other (specify) \_\_\_\_\_

3. What is your current relationship status .

\_\_\_\_\_ single      \_\_\_\_\_ committed non-married relationship

\_\_\_\_\_ married      \_\_\_\_\_ divorced

\_\_\_\_\_ widowed

4. What terminal degree were you seeking while at Loyola University Chicago?

\_\_\_\_\_ Master's degree

\_\_\_\_\_ Doctoral degree (i.e., Ph.D., Ed.D., etc.)

\_\_\_\_\_ Other (Specify) \_\_\_\_\_

**UNIVERSITY LIFE**

5. How many credit hours have you completed at Loyola in Graduate School? \_\_\_\_\_

How many years have you been attending graduate school at Loyola ? \_\_\_\_\_

6. What is your current student status (circle one):

Full-time

Part-time

Not enrolled  
taking time off

No longer a  
student at Loyola

If you are no longer a student or are not enrolled please explain why?

\_\_\_\_\_ Completed program/obtained degree

\_\_\_\_\_ To accept a good job

\_\_\_\_\_ It would cost more than my family could afford

\_\_\_\_\_ To enter military service

\_\_\_\_\_ Disinterest in study

\_\_\_\_\_ Marriage/children

\_\_\_\_\_ Insufficient reading or studying skills

\_\_\_\_\_ Lack of academic ability

\_\_\_\_\_ Lack of mentoring or professional support

\_\_\_\_\_ Racial discrimination

\_\_\_\_\_ Other (specify) \_\_\_\_\_

7. What program are/were you in: \_\_\_\_\_

8. Have you completed your Masters degree (circle one)?      Yes      No

9. How do you find the university social environment (i.e., department, parties, library, cafeteria, etc.) (circle one).

Friendly                      Somewhat                      Somewhat                      Unfriendly  
    Friendly                      Unfriendly

10. How would you rate the level of stress you experienced while attending graduate school (circle one).

Overwhelmingly                      Somewhat                      Never  
 Stressful                      Stressful                      Stressful

11. Have you had a minority professor during your graduate studies (circle one)?      Yes      No

12. Do you have a mentor (i.e., supportive faculty member) at Loyola (circle one)?      Yes      No

13. How would you rate your interactions with your mentor in the following areas (circle one):

Never                      Rarely                      Often                      Always  
 1                                      2                                      3                                      4

A. Helping with advisor's tasks (i.e., picking out your class schedule, planning goals for the academic year, etc.).      1 2 3 4

B. Assisting in understanding university environment.      1 2 3 4

C. Provide encouragement for continued studies and support to go on for advanced degree(s).      1 2 3 4

D. Available and concerned about your personal development (i.e., social life, current events, etc.).      1 2 3 4

14. If you have a mentor, what race/ethnicity is that person? .

\_\_\_\_\_ African-American (Black)

\_\_\_\_\_ Caucasian (not of Hispanic origin)

\_\_\_\_\_ Asian (Pacific Islander)

\_\_\_\_\_ No mentor

\_\_\_\_\_ Latino (Latin American)

\_\_\_\_\_ American Indian (Alaskan native)

\_\_\_\_\_ Other (specify) \_\_\_\_\_

15. If you have a mentor, is he/she a male \_\_\_\_\_ female \_\_\_\_\_ or no mentor ? \_\_\_\_\_

16. How often, within an average week, do you interact with Caucasians at your university outside the classroom (circle one)?

Several times a day 1	At least once a day 2	Several times a wk. 3	At least once a wk. 4	Less than once a wk. 5
-----------------------------	-----------------------------	-----------------------------	-----------------------------	------------------------------

A. Caucasian students	1	2	3	4	5
B. Caucasian faculty	1	2	3	4	5

17. How would you rate the majority of Caucasian professors in your department regarding their relations with minority students (circle one)?

Never 1	Rarely 2	Often 3	Always 4
------------	-------------	------------	-------------

A. Have difficulty relating to minority students?	1	2	3	4
B. Avoid minority student interaction outside the classroom?	1	2	3	4
C. Provide encouragement to continue studies and go on for advanced degree(s)?	1	2	3	4
D. Seem genuinely concerned about minority success?	1	2	3	4
E. Evaluate minority students' academic ability fairly?	1	2	3	4

18. How would you rate the majority of Caucasian students in your department regarding their relations with minority students? Do they (circle one):

Never 1	Rarely 2	Often 3	Always 4
------------	-------------	------------	-------------

A. Show high regard for minority students' academic abilities?	1	2	3	4
B. Avoid interactions with minority students socially?	1	2	3	4
C. Treat minority students as equal?	1	2	3	4

19. Are there other minority student(s) in your department? (circle one) Yes No

20. How would you rate other minority students in your program.

Never 1	Rarely 2	Often 3	Always 4
------------	-------------	------------	-------------

A. Are available to discuss school related issues.	1	2	3	4
B. Provide encouragement to continue studies.	1	2	3	4
C. Provide helpful advice about degree requirements.	1	2	3	4
D. Are available to discuss personal issues.	1	2	3	4

21. Please name one factor that motivates you to persist in graduate school.

---

22. Please name one factor that would or did encourage you to leave or drop out of graduate school.

---

23. What would you say are some of the most serious problems and difficulties that minority graduate students who attend this university face (check as many as apply)?

- |   |  |
|---|--|
| <input type="checkbox"/> Financial difficulties                       | <input type="checkbox"/> Academic problems           |
| <input type="checkbox"/> Racial discrimination                        | <input type="checkbox"/> Cultural differences        |
| <input type="checkbox"/> Lack of faculty support                      | <input type="checkbox"/> Adjustment problems         |
| <input type="checkbox"/> Dissatisfaction with the academic program(s) | <input type="checkbox"/> Personal problems           |
| <input type="checkbox"/> Unsatisfactory social life/relationships     | <input type="checkbox"/> Family problems             |
| <input type="checkbox"/> Other (specify): _____                       | <input type="checkbox"/> Lack of motivation/interest |
- 

24. Have you personally experienced discrimination or instances of differential treatment because of your race or ethnic background(circle one) ?

- Never                      Rarely                      Often                      Always

**PERSONAL LIFE**

25. How spiritual (i.e., have a connection with a higher power) are you (circle one)?

- Very Spiritual                      Spiritual                      Somewhat Spiritual                      Not at all Spiritual

26. How helpful are your spiritual beliefs in aiding you in your graduate work (Circle one)?

- Not Helpful                      Sometimes Helpful                      Often Helpful                      Always Helpful

27. What was the racial makeup of the student population at the various schools you attended (circle one)?:

- |                     |                 |                     |                  |                      |
|---------------------|-----------------|---------------------|------------------|----------------------|
| Almost All Minority | Mostly Minority | About half Minority | Mostly Caucasian | Almost all Caucasian |
| 1                   | 2               | 3                   | 4                | 5                    |

- |                            |   |   |   |   |   |
|----------------------------|---|---|---|---|---|
| A. Grammar or elementary   | 1 | 2 | 3 | 4 | 5 |
| B. Junior High or Middle   | 1 | 2 | 3 | 4 | 5 |
| C. High School             | 1 | 2 | 3 | 4 | 5 |
| D. College (Undergraduate) | 1 | 2 | 3 | 4 | 5 |

28. What was the racial makeup of the people in the following environments (circle one)?:

Almost All Minority 1	Mostly Minority 2	About half Minority 3	Mostly Caucasian 4	Almost all Caucasian 5
-----------------------------	-------------------------	-----------------------------	--------------------------	------------------------------

- A. Neighborhood where you grew up. 1 2 3 4 5  
 B. Church or place of worship you attended while growing up. 1 2 3 4 5

**FINANCIAL AID**

29. Are you or were you able to financial support your education at Loyola University Chicago without the use of financial aid (circle one)?

Yes No

30. Do you or did you receive financial aid? (circle one) Yes No

If yes, What type of financial aid do you receive? (Check all that apply)

<input type="checkbox"/> graduate/ teaching assistantship	<input type="checkbox"/> fellowship/scholarship
<input type="checkbox"/> loans	<input type="checkbox"/> grants
<input type="checkbox"/> other (specify) _____	

31. How adequate is/was the financial aid you receive in meeting your financial needs (circle one)?

	Somewhat Less	Somewhat More	Very
Inadequate	than Adequate	Adequate	than Adequate
			Adequate

32. Do or did you have to work during the academic year while attending Loyola University Chicago in order to financially provide for your education or expenses(circle one).

Yes No

If yes, how many hours do or did you work during the average week while you were in school?

\_\_\_\_\_

Please use this space to make any comments concerning your life as a Graduate student at Loyola.

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APPENDIX D  
SUPPLEMENTARY ADMISSIONS QUESTIONNAIRE

Please indicate the extent to which you agree or disagree with each of the following items. Respond to the statements below with your feelings at present or with your expectations of how things will be. Write in your answer to the left of each item.

Strongly Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5	
___					1. The University should use its influence to improve social conditions in the State.
___					2. It should not be very hard to get a B (3.0) average at Loyola.
___					3. I get easily discouraged when I try to do something and it doesn't work.
___					4. I am sometimes looked up to by others.
___					5. If I run into problems concerning school, I have someone who would listen to me and help me.
___					6. There is no use in doing things for people, you only find that you get it in the neck in the long run.
___					7. In groups where I am comfortable, I am often looked to as leader.
___					8. I expect to have a harder time than most students at Loyola.
___					9. Once I start something, I finish it.
___					10. When I believe strongly in something, I act on it.
___					11. I am as skilled academically as the average applicant to Loyola.
___					12. I have encountered racism at Loyola.
___					13. People can pretty easily change me even though I thought my mind was already made up on a subject.
___					14. My friends and relatives don't feel I should go to college.
___					15. My family has always wanted me to go to college.
___					16. If course tutoring is made available on campus at no cost, I would attend regularly.
___					17. I want a chance to prove myself academically.
___					18. My undergraduate grades don't really reflect what I can do.



APPENDIX E

PERCEIVED SOCIAL SUPPORT FROM FRIENDS

Direction: The statements which follow refer to feelings and experiences which occur to most people at one time or another in their relationships with friends. For each statement there are three possible answers: Yes, No, Don't know. Please circle the answer you choose for each item.

- |                   |   |
|-------------------|---|
| Yes No Don't Know | 1. My friends give me the moral support I need.   |
| Yes No Don't Know | 2. Most other people are closer to their friends than I am.   |
| Yes No Don't Know | 3. My friends enjoy hearing about what I think.   |
| Yes No Don't Know | 4. Certain friends come to me when they have problems or need advice.   |
| Yes No Don't Know | 5. I rely on my friends for emotional support.  |
| Yes No Don't Know | 6. If I felt that one or more of my friends were upset with me, I'd just keep it to myself.                     |
| Yes No Don't Know | 7. I feel that I'm on the fringe in my circle of friends.   |
| Yes No Don't Know | 8. There is a friend I could go to if I were just feeling down, without feeling funny about it later.           |
| Yes No Don't Know | 9. My friends and I are very open about what we think about things.   |
| Yes No Don't Know | 10. My friends are sensitive to my personal needs.  |
| Yes No Don't Know | 11. My friends come to me for emotional support.  |
| Yes No Don't Know | 12. My friends are good at helping me solve problems.   |
| Yes No Don't Know | 13. I have a deep sharing relationship with a number of friends.  |
| Yes No Don't Know | 14. My friends get good ideas about how to do things or make things from me.                                    |
| Yes No Don't Know | 15. When I confide in friends, it makes me feel uncomfortable.  |
| Yes No Don't Know | 16. My friends seek me out for companionship.   |
| Yes No Don't Know | 17. I think that my friends feel that I'm good at helping them solve problems.                                  |
| Yes No Don't Know | 18. I don't have a relationship with a friend that is as intimate as other people's relationships with friends. |
| Yes No Don't Know | 19. I've recently gotten a good idea about how to do something from a friend.                                   |
| Yes No Don't Know | 20. I wish my friends were much different.  |

APPENDIX F

PERCEIVED SOCIAL SUPPORT FROM FAMILY

Direction: The statements which follow refer to feelings and experiences which occur to most people at one time or another in their relationships with families. For each statement there are three possible answers: Yes, No, Don't know. Please circle the answer you choose for each item.

- |                   |  |
|-------------------|--|
| Yes No Don't Know | 1. My family gives me the moral support I need.  |
| Yes No Don't Know | 2. I get good ideas about how to do things or make things from my family.  |
| Yes No Don't Know | 3. Most other people are closer to their family than I am.   |
| Yes No Don't Know | 4. When I confide in the members of my family who are closest to me, I get the idea that it makes them uncomfortable.            |
| Yes No Don't Know | 5. My family enjoys hearing about what I think.  |
| Yes No Don't Know | 6. Members of my family share many of my interests.  |
| Yes No Don't Know | 7. Certain members of my family come to me when they have problems or need advice.   |
| Yes No Don't Know | 8. I rely on my family for emotional support.  |
| Yes No Don't Know | 9. There is a member of my family I could go to if I were just feeling down, without feeling funny about it later.               |
| Yes No Don't Know | 10. My family and I are very open about what we think about things.  |
| Yes No Don't Know | 11. My family is sensitive to my personal needs.   |
| Yes No Don't Know | 12. Members of my family come to me for emotional support.   |
| Yes No Don't Know | 13. Members of my family are good at helping me solve problems.  |
| Yes No Don't Know | 14. I have a deep sharing relationship with a number of members of my family.  |
| Yes No Don't Know | 15. Members of my family get good ideas about how to do things or make things from me.   |
| Yes No Don't Know | 16. When I confide in members of my family, it makes me uncomfortable.   |
| Yes No Don't Know | 17. Members of my family seek me out for companionship.  |
| Yes No Don't Know | 18. I think that my family feels that I'm good at helping them solve problems.   |
| Yes No Don't Know | 19. I don't have a relationship with a member of my family that is as close as other people's relationships with family members. |
| Yes No Don't Know | 20. I wish my family were much different.  |

APPENDIX G

NON-SIGNIFICANT MULTIPLE REGRESSION ANALYSES

FOR FIRST SEMESTER GRADUATE

GRADE POINT AVERAGE

Table 3

Non-Significant Regressions for  
First Semester Grade Point Average

Variable	Beta	DF	<u>t</u>	<u>p</u> ≤
Undergraduate Grade Point Average	.0216	46	.160	.87
Perceived Social Support (Friends)	.0433	46	1.007	.32
Perceived Social Support (Family)	-.0156	46	-1.603	.55
Spirituality	.0516	46	.742	.46
Previous Interracial Experiences	-.0070	46	- .756	.45
Financial Aid	.0269	46	.169	.87
(Constant)	3.17			

APPENDIX H  
NON-SIGNIFICANT REGRESSIONS FOR RATE OF  
ACADEMIC MATRICULATION (YEARS)

Table 4

Non-Significant Regressions for Rate of  
Rate of Academic Matriculation (Years)

Variable	Beta	DF	t	p ≤
Undergraduate Grade Point Average	7.678	32	1.030	.31
Perceived Social Support (Family)	.125	32	.534	.60
Perceived Social Support (Friends)	- .124	32	- .945	.35
Spirituality	-4.177	32	-1.031	.31
Previous Interracial Experience	- .352	32	- .688	.50
Perceived level of Stress	-1.764	32	- .377	.71
University social environment	-2.286	32	- .428	.67
(Constant)	54.33			



APPENDIX I  
NON-SIGNIFICANT REGRESSIONS FOR RATE OF  
ACADEMIC MATRICULATION (CREDIT HOURS)

Table 5

Non-Significant Regressions for Rate of  
Rate of Academic Matriculation (Credit Hours)

Variable	Beta	DF	t	p ≤
Undergraduate Grade Point Average	10.532	43	1.437	.16
Perceived Social Support (Friends)	- .558	43	-1.937	.06
Perceived Social Support (Family)	.011	43	.048	.96
Spirituality	-3.719	43	- .982	.33
Previous Interracial Experience	- .242	43	- .493	.62
Perceived level of Stress	-5.172	43	-1.069	.29
University social environment	-4.355	43	- .960	.34
(Constant)	52.36			

APPENDIX J  
NON-SIGNIFICANT T-TESTS FOR  
FINANCIAL AID STATUS

Table 6

Non-Significant T Tests for  
Financial Aid Status

---

Group	t-score	p ≤
First semester graduate grade point average	0.49	> .05
Years attending Graduate School	-0.03	> .05
Undergraduate grade point average	-0.97	> .05

---

APPENDIX K  
NON-SIGNIFICANT ANALYSIS OF  
VARIANCES FOR MENTOR STATUS

Table 7

Non-Significant Analysis of  
Variances for Mentor Status

---

Group	t-score	p ≤
First semester graduate grade point average	0.36	> .05
Years attending Graduate School	-1.54	> .05

---

APPENDIX L  
NON-SIGNIFICANT CHI-SQUARE FOR  
FINANCIAL AID STATUS

Table 8

Non-Significant Chi-Square for Financial Aid

---

Group	Value	$p \leq$
Mentor Status	.199	.65

---



APPENDIX M

NON-SIGNIFICANT T-TESTS FOR

MINORITY GRADUATE STUDENT EXPERIENCES

Table 9

Non-Significant T Tests for  
Minority Graduate Student Experiences

Group	$t$ -score	$p \leq$
First semester Grade Point Average	-0.38	.71
Rate of Academic Matriculation (Credit Hours)	-0.52	.61
Rate of Academic Matriculation (Years)	-0.83	.41

APPENDIX N  
NON-SIGNIFICANT T-TESTS FOR  
EMPLOYMENT STATUS

Table 10

Non-significant T-tests for  
Employment Status

---

Group	t-score	p ≤
First semester Grade Point Average	0.96	.34
Rate of Academic Matriculation (Years)	-0.21	.83
Undergraduate grade point average	0.53	.60

---

APPENDIX O  
FREQUENCIES FOR PERCEIVED SOCIAL  
SUPPORT FOR FRIENDS

Table 11  
Frequencies for Perceived Social  
Support for Friends

---

Values	Frequencies	Percentages
6	1	1.4
7	2	2.8
8	1	1.4
9	3	4.2
10	4	5.6
11	4	5.6
12	15	21.1
13	9	12.7
14	23	32.4
15	8	11.3
16	1	1.4

---

APPENDIX P  
FREQUENCIES FOR PERCEIVED SOCIAL  
SUPPORT FOR FAMILY

Table 12  
Frequencies for Perceived Social  
Support for Family

---

Values	Frequencies	Percentages
4	3	4.4
5	1	1.5
7	6	8.8
8	1	1.5
9	4	5.9
10	6	8.8
11	2	2.9
12	4	5.9
13	6	8.8
14	20	29.4
15	13	19.1
16	1	1.5
19	1	1.5

---



APPENDIX Q  
PERMISSION LETTERS FOR MODEL

Denise Daniels  
 5858 N. Sheridan Rd. Apt. 804  
 Chicago, IL 60660

April 3, 1995

Dear Christine Bennett, Ph.D.,

This letter will confirm our recent telephone conversation. I am completing a masters thesis at Loyola University Chicago entitled "The Psycho-Social Factors Related to the Academic Attrition of Minority Graduate Students." I would like permission to reprint in my thesis the illustration from Bennett, C. & Okinaka, A. (1984). Explanations of Black student attrition in predominantly White and predominantly Black universities. Integrated Education, 22, 73-80. The excerpts to be reprinted are the illustration (see attachment). The requested permission extends to any further revisions and editions of my thesis, including non-exclusive world rights in all languages, and to the perspective publication of my thesis by University Microfilm, Inc. Thesis rights will in no way restrict republication of the material in any other form by you or by others authorized by you. (Your signing of this letter will also confirm that you own the copyright to the above-described material.)

*Please check with Integrated Education. They own the copyright.*

If these arrangements meet with your approval, please sign this letter where indicated below and return it to me. Thank you very much.

Sincerely,

Denise Daniels  
 Clinical Psychology Graduate Student

PERMISSION GRANTED FOR THE USE REQUESTED ABOVE:

*Christine Bennett*

Christine Bennett, Ph.D.

DATE:

*April 17, 1995*

The Journal of Equity and Excellence (formerly Integratededucation) gives permission to Denise Daniels to use the article entitled "Explanations of Black Student Attrition in Predominantly White and Predominantly Black Universities", authored by Bennett, Christine and Okinaka, Alton. Vol. 22; pp. 73-80. Permission is granted for use as a reference and citation in Ms. Daniel's Master's Thesis.

A printed copy of this e-mail will be forwarded to Ms. Daniels with signatory approval.

Sincerely,



Constance R. Bunker, Business Manager  
School of Education  
University of Massachusetts/Amherst  
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## VITA

The author was born in Washington, D.C. on August 19, 1969 to Napoleon and Lenora Daniels. She graduated from Elizabeth Seton High School in Bladenburg, Maryland in 1987. She attended Spelman College and graduated Magna cum laude with a Bachelor of Arts degree in psychology in May of 1991.

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THESIS APPROVAL SHEET

The thesis, "The Psycho-Social Factors Related to the Academic Attrition of Minority Graduate Students," submitted by Denise Daniels has been read and approved by the following committee:

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

The thesis is, therefore, accepted in partial fulfillment of the requirements for the degree of master of arts.

7/19/95  
Date

Isiaah Crawford, Ph.D.  
Director's Signature