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LOYOLA UNIVERSITY CHICAGO

THE RELATIONSHIP BETWEEN ETHNICITY, SOCIOECONOMIC STATUS AND  
COLLEGE PERSISTENCE INTENTIONS

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

DEPARTMENT OF COUNSELING PSYCHOLOGY

BY

DEBORAH A. ZUKERMAN

CHICAGO, ILLINOIS

MAY 1996

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## ACKNOWLEDGEMENTS

The direction provided by Dr. Steven D. Brown and Dr. V. Scott Solberg is gratefully appreciated. The inspiration given by Wendy Adelstein and Marilyn Verde was truly helpful. The support, patience and loyalty of Sander Alan Lee and the Zukerman family are greatly valued.

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## CHAPTER I

### INTRODUCTION

Educational attainment is one of the most important means by which to gain social economic mobility and independence. Statistically, the percentage of persons completing high school degrees has risen 60% in the last 80 years. In 1910, the percentage of persons to complete a high school degree was only 13.5%. Likewise, the percentage to dropout was over 80%. By 1960, the high school completion rate had risen to 41.1% and by 1994 it was at 80.9% with a dropout rate of 11.2% (U.S. Department of Education, 1995). For years, researchers have investigated which factors affect whether students stay in school or drop out. More specifically, particular family related factors have been hypothesized to be associated with dropping out. These include socioeconomic factors such as low educational and occupational attainment levels of parents, low family income and the absence of learning materials and opportunities in the home (Ekstrom, 1986; Rumberger, 1983). Furthermore, although the long term trend of dropping out has declined, the percentage has been at a different rate for different ethnicities. For example, in 1994 the dropout rate was 7.5% for Caucasian, 12.3% for Black and 31.6% for Hispanic populations (U.S. Department of Education, 1995).

The whole concept about a relationship between socioeconomic status affecting

ones level of achievement gained significant attention when Coleman attempted to empirically explore the impact of schools on academic achievement and dropout rates in relation to other factors. Coleman analyzed data from 600,000 children and 60,000 teachers from 4000 schools across the United States. After conducting an incremental partitioning of variance, Coleman concluded that "schools bring little influence to bear on a child's achievement that is independent of his background and general social context" (Coleman, 1966). Unfortunately, the analytic method chosen for this study was inappropriate because it was not based on a theory. Therefore, its conclusions have led to serious misconceptions among social scientists, policy makers and general public opinion. The one positive contribution that Coleman's study has made was the explosion of empirical studies investigating the relationship between socioeconomic status and the other factors affecting scholastic achievement. However, despite the number of studies exploring this relationship, the results yielded from the studies have remained inconsistent. Correlation coefficients between socioeconomic status and academic achievement have been reported to range from 0.100 to more than 0.800 depending upon the study (White, 1993). Some suggest this can be explained by the varied definitions and measurements used for the terms socioeconomic status and achievement (White 1982, White 1993). Others suggest that additional factors like race and ethnicity can account for the variance (Fernandez, 1989; Cardoza, 1991).

The purpose of this study is to examine the effects of socioeconomic status on college academic achievement and college persistence intentions. Additionally the study will investigate whether race/ethnicity moderates the relationship between socioeconomic



status and the achievement variables.

## CHAPTER II

### LITERATURE REVIEW

As mentioned in the introduction, Coleman's (1966) assertion that a strong relationship exists between socioeconomic status and academic achievement started a substantial debate and quest to determine the accuracy of its declaration. Although the results were later found to have been made in error, hundreds of research projects have since re-examined this relationship. This section contains synopses of several of these studies. The objectives for selecting these particular articles are three-fold. The first goal is to illustrate the inconsistency throughout the literature for defining and measuring the terms "socioeconomic status" and "achievement". The second objective is to gain an overall understanding of the relationship between socioeconomic status and academic achievement. Finally, the last goal is to explore this relationship according to ethnic differences.

#### Definition and Measurements of Socioeconomic Status and Academic Achievement

Although there have been hundreds of studies exploring the relationship between socioeconomic status and academic achievement, there appears to be no standard form of measurement for the terms involved. The next two sub-sections will discuss several of the

more common measurements for these variables.

### Socioeconomic Status

Socioeconomic status is defined by most researchers as the social and economic level of the subject. However, some researchers choose to use the subjects' financial statistics to determine this figure, while others use their perceptions of their socioeconomic levels. Furthermore, different researchers use different statistics and questions to form their own definitions and measurements of socioeconomic status variables. In most studies, socioeconomic status was defined separately or used in combination with several items: parents' education level, welfare eligibility, family income, parents' occupation, perceived social class level, parental zip code and the number of material objects within the home.

In 1987, Wilson and Allen tested 7 variables to examine their influence on the educational attainment process. These variables included family socioeconomic status, family structure, family influence, educational background, school influence, personal efficacy and additional mediating factors (age, gender, parental status and employment). Notice that socioeconomic status is listed as a different variable than parental educational background and welfare eligibility. The study's findings reported that respondents whose mothers had completed more years of schooling had significantly higher educational attainment. Educational attainment was lower (although not significantly) for those from families that had received welfare when the young adult was in high school. In conclusion, parental educational levels, welfare eligibility and socioeconomic status, which in some

studies would be solely or conjointly used to define the socioeconomic status variable, all yielded different relationships with the educational attainment process.

### Achievement

Academic achievement has also been measured in a variety of ways throughout the literature. Sometimes researchers measure statistical evidence like grade point averages, dropout rates, standardized test scores and degree attainment. Other times, they measure persistence intentions and/or academic aspirations. The majority of the measurements used in this literature review measure achievement in terms of high school degree attainment, dropout rates, college grade point average and college degree attainment.

While the first two sections discussed the variety of variables used in the literature to define socioeconomic status and academic achievement, the next section will synopsis a few of the major studies exploring the socioeconomic status and academic achievement relationship.

#### Socioeconomic Status as a Predictor of Scholastic Achievement

In 1964, Astin reported results from his longitudinal study which explored the relationship between socioeconomic factors and predicting high school dropouts. He had 6,600 students from the National Merit Scholarship Competition complete a questionnaire shortly before attending their freshman year at college in 1957 and then a follow-up questionnaire in spring of 1961 (approx. expected graduation time). Analysis of the data revealed that low socioeconomic status background predicted dropping out at the .001 level (Astin, 1964).

A few years later, the National Longitudinal Study (NLS) was launched to re-investigate these results. The data obtained from this research was then analyzed in a multitude of studies. Although the same data was used for the next three articles, different results were found due to the individual study's theoretical base and/or choice of measurement for the dependent variable of achievement. Using the high school class of 1972, the NLS was designed to provide the education community with information on the transitions of young adults from high school through post-secondary education and the workplace. Researchers began with the collection of base-year survey data from a sample of about 19,000 high school seniors in spring 1972. Five more follow-up surveys of these students were conducted in 1973, 1974, 1976, 1979 and 1986. The sample design for the NLS was a stratified, two stage probability sample of 12th grade students from all schools, public and private, in the 50 states and the District of Columbia for the 1971-72 school year. During the first stage of the sampling, about 1,070 schools were selected for participation in the base-year survey. As many as 18 students were selected from each of the sample schools. Both the size of the school and the students' samples were increased during the first follow-up survey. Beginning with the first follow-up and continuing through the fourth follow-up, about 1,300 schools participated in the survey and slightly under 23,500 students were sampled. Sample retention rates across the survey years were quite high. For example, of the individuals responding to the base-year questionnaire, the percentages who responded to the first, second, third, and fourth follow-up questionnaires were about 94, 93, 89 and 83% respectively (U.S. Department of Education, 1995).

Thomas, Alexander and Eckland (1979) used the data from the original survey in

1972 and the follow-up in 1973. They concluded social class had a substantial impact on whether high school graduates went to college. This influence was both directly and indirectly seen through its influence on student academic achievement. Furthermore, socioeconomic status background was reported to be the most important of the factors considered, surpassing both race and sex in its implications for college attendance. They further discovered that students' motivations, aspirations and goal orientations (rather than family finances) were identified as the major contributors to social class inequalities in educational attainment (Thomas, 1979).

Alexander, Riordan, Fennessey and Pallas (1982) also used the NLS data set. Their results stated that high socioeconomic status youth were much more likely to graduate from college than their lower socioeconomic status counterparts. Statistically, low socioeconomic status youth were found to score a standard deviation below high socioeconomic status youth in this sample on the standardized test batteries. In addition, they scored 9% below high socioeconomic status in their high school class. They were also much less likely to be enrolled in an academic high school curriculum with 23% of low socio-economic status youth enrolled compared to 58% of high socioeconomic status youth enrolled (Alexander, 1982).

Another researcher, Munro (1981) used the NLS as a data set to explore Tinto's dropout model. Tinto developed his model in 1975 after recognizing that the previous dropout research failed to distinguish between dropout from academic failure and voluntary withdrawal. Based on Durkheim's suicide research, Tinto reasoned that dropping out, like suicide, is more likely to occur when individuals are inadequately

integrated into society. His results indicated that voluntary withdrawals exhibited higher levels of intellectual development than involuntary withdrawals and were of higher social status. Conversely, academic dismissals exhibited both lower aptitude levels of intellectual development and were of lower social status (Tinto, 1975). Using a path analysis on the NLS data, Munro tested this model. He also concluded that pre-college characteristics predicted college integration. However, his results suggested that they did not directly affect drop out decisions. Unlike Thomas (1974) who found both a direct and indirect relationship, Munro's study found SES, ethnicity and sex variables were related to achievement by only an indirect relationship (Munro, 1981).

Baird (1976) investigated this same concept by examining the relationship between socioeconomic status and achievement, using graduate school completion rates as the achievement measurement tool. He found that students from higher socioeconomic status were more likely to attend graduate school, but concluded that it was not known whether this influence was exerted directly on the decision to go to graduate school or indirectly by impacting earlier decisions concerning the educational process (Baird, 1976).

Ethington and Smart (1986) decided to investigate Baird's concept by starting a longitudinal study. They selected 2,873 men and 3,369 women to complete a survey upon entering college in 1971 and a follow-up survey in 1980. The analysis depicts that socioeconomic status background did influence the decision to attend graduate school, not directly, but indirectly by influencing the choice of undergraduate institution and the extent of integration within that institution. Therefore, they concluded that the advantage given to higher status students was carried over and enhanced by the socialization process that

occurred at the undergraduate institution. For lower status students who aspired to graduate school, they, like Tinto (1975), felt it was evident that in order to overcome their initial obstacles, they had to be highly integrated within the social and academic aspects of the undergraduate institutions (Ethington, 1986).

Another study, Barrington, 1989, examined 651 students who entered high schools as freshman in the fall of 1981. They were compared to those students who graduated at the end of the 1984-85 academic year. By carefully analyzing the longitudinal changes, cutoffs were determined. Barrington reported that these cut-offs differentiated dropouts with 66% accuracy in the third grade and 85% accuracy in the ninth grade. According to this study's results, the fathers of high school dropouts tended to have lower social status jobs (Barrington, 1989).

In 1980, another major longitudinal study began. Similar to the NLS, the High School and Beyond (HS&B) study was designed to monitor educational and occupational trends of high school students through their adulthood. The base year survey was a probability sample of 1,015 high schools with a target number of 36 sophomores and 36 seniors in each of the schools. A total of 58,270 students participated in the base-year survey. Student refusals and absences resulted in an 82 percent completion rate for the survey. Students completed questionnaires and took a battery of cognitive tests. In addition, a sample of parents of sophomores and seniors (about 3,600 for each cohort) was surveyed. HS&B first follow-up activities took place in the spring of 1982. The sample design of the first follow-up survey called for the selection of approximately 30,000 persons who were sophomores in 1980 which yielded a 96% response rate. A



subset of the seniors were sampled. 11,227 of the 11,995 persons subsampled completed questionnaires. Transcripts for both cohorts were also requested. The second follow-up, which took place in spring 1994, consisted of about 12,000 members of the senior cohort and about 15,000 members of the sophomore cohort. The completion rate for the senior cohort was 91% and the completion rate for the sophomore cohort was 92%. HS&B third follow-up data collection activities were performed in spring 1986. Both the sophomore and senior cohort samples for this round of data collection were the same as those used for the second follow-up survey. The completion rates for the sophomore and senior cohort samples were 91% and 88% respectively (U.S. Department of Education, 1995).

After analyzing data from the 1980 base survey and the subsequent follow-up surveys in 1982, 1984 and 1986, Wehlage and Rutter (1986) concluded that socioeconomic status was correlated (.25) with school degree attainment (Wehlage, 1986).

Another study analyzed the HS&B data and supported the last studies' results by finding that dropouts had significantly lower scores than graduates on socioeconomic status and achievement test scores. They also stated a significant difference between female dropouts and graduates. This difference was concluded to be a result of background factors such as urbanicity, prior academic achievement, and socioeconomic factors (McCaul, 1992).

Finally, the High School and Beyond data was later analyzed according to racial and ethnic differences. These results will be discussed in depth later in the paper.

Another research group, Bronfenbrenner and Crouter (1983) stated that at a macro-social level, dropouts would occur more frequently in context where school achievement was not highly valued (e.g. lower socioeconomic status, inner city). They suspected that a linkage existed between the personal configurations and dropout which was modulated by the child's socioeconomic status and race (Bronfenbrenner, 1983).

Cairns, Cairns and Neckerman (1989) tested Bronfenbrenner's concept with 475 seventh graders who were seen annually in individual interviews. The interviews were tape-recorded and transcribed verbatim into written transcripts. Different teachers/counselors then completed Interpersonal Competence Test-Teacher Form (ICS-T). The results indicated that 14% of the students had dropped out prior to 11th grade. Alone, socioeconomic status and race were each reported to contribute to the likelihood of dropping out. For example, above average socioeconomic status subjects were less likely to drop out than below average socioeconomic status subjects. Race was also found to play a modulating role for dropouts. Black males who failed one year were reported to be less likely to drop out than white males who failed one year. While socioeconomic status and race each contribute to the likelihood of dropping out, a combination of these factors had the strongest relationship with early dropout (Cairns, 1989).

In 1986, Nettles et al. conducted a study analyzing Student Opinion Surveys involving 4,094 college students and Faculty Opinion Surveys of 706 faculty members. Their findings indicated that socioeconomic status, high school GPA, number of interfering problems, SAT scores, age, study habits, academic integration, and total enrollment were predictors of cumulative college grade point average. Socioeconomic

status was found to be a predictor with a correlation coefficient level of 0.121.

Furthermore the authors concluded that the significance of the interfering problems scale, as a predictor of lower college grade point average, was not surprising because it reflected problems that they perceived students may encounter (personal, financial, family) that directly competed with their academic performance. They attributed these problems to lower socioeconomic status level (Nettles, 1986).

However, when controlling for all other factors in the equation, students' socioeconomic status was not a significant predictor. The authors suggested that parents' education, occupation and income (all components of the SES factor) are not contributors to college performance if all other matters (high school preparation, interfering problems, etc.) are equal (Nettles, 1986).

### Analyzing the Inconsistencies

While all of the above mentioned studies agree that a relationship between socioeconomic status and scholastic achievement exists, the degree and significance of the relationship was still under debate. White (1982) attempted to clear up some of this confusion by attempting to arrive at an overall coefficient. After conducting a meta-analysis correlating the results of 101 studies, he concluded that socioeconomic status is positively, but weakly, correlated (.22) with academic achievement when examining individual student data.

White, Reynolds, Thomas and Gitzlaff (1993) conducted another study to support the "new" information. They analyzed data from 30,000 pupils from city and suburban

schools within a major metropolitan area. Their findings support White's 1982 assertions. They revealed that earlier studies had greatly overestimated the percentage of variance in achievement explained by socioeconomic status. Contrary to earlier reports, they stated that knowledge of a student's socioeconomic-economic status, or that of his peers, provides only modest assistance in accurately predicting his performance on standardized tests (White, 1993).

If White's results are accurate, and the relationship between socioeconomic status and achievement is very weak, what could account for the hundreds of studies indicating a much stronger relationship? White attributed inconsistent socioeconomic status definitions and inaccurate school achievement measurements as reasons for inaccurate and inconsistent overall findings. Others claim that several important variables, such as race and ethnicity, are missing from the equation that would account for the inconsistencies (Camburn, 1990).

### The Role of Ethnicity

The previous section presented research that suggested that the level of parental education, occupation, and income are related to academic performance. Thus, students from higher socioeconomic backgrounds tend to obtain higher grades and remain in college longer (Astin, 1975; Pantages & Creedon, 1978; Vaquez, 1982). While low socioeconomic status has been suggested to be a negative attribute in regards to scholastic achievement, the situation was hypothesized to be even worse for a student who is not only from a low socioeconomic status but also from an ethnic and language minority

background. Duran concluded that white students have a decided advantage over minorities because their parents are more often college educated and are more likely to have professional occupations (Duran, 1983). Therefore, they are also more likely to earn higher yearly incomes (Szymanski, 1983). Consequently, white parents theoretically appear in a better position to provide for the long term educational needs of their children (So, 1987).

Camburn (1990) analyzed data from 1,009 students who were surveyed as part of the High School and Beyond national longitudinal study. The results indicated that race was found to be the strongest predictor of college completion. Caucasians were considerably more likely than minorities to obtain a BA when socioeconomic status and college plans were controlled. Compared to race, students' socioeconomic status was found to have much less impact on the likelihood of obtaining a college degree.

Looking at whites who planned to graduate from college, the predicted probability of graduation for high socioeconomic status individuals was 13 percentage points higher than the corresponding probability for low socioeconomic status students. However, the graduation rate for high socioeconomic status minorities who planned to finish college was only 9 percentage points higher than that of low socioeconomic status minorities (Solorzano, 1990).

Moreover, less than one-quarter of all low-socioeconomic status minorities from minority-dominant high schools (student body composed of 2/3 minorities) who planned to finish college actually obtained a four year degree. At the opposite end of the spectrum, 1/2 of all high-socioeconomic status Caucasians from Caucasian dominant

schools (student body composed of 2/3 whites) who planned to complete college obtained a degree. In fact, on average, students from white-dominant schools were 1.2 times more likely than those from minority-dominant schools to complete college (Solorzano, 1990).

One theoretical model which has been used to explain racial differences in educational and occupational attainment is the "cultural deficit" or "culture of poverty". According to this model, it was hypothesized that black students place less value on education and upward mobility. They therefore have lower aspirations/ expectations than white students, even when social class is controlled. A major criticism of this theory is that it focuses on individual and group characteristics and avoids institutional or social structural factors. The author stated that this approach simply shifts the responsibility away from the schools and on to the family (Solorzano, 1990).

Solorzano (1990) explored this model when she surveyed 24,599 8th graders and their parents. The surveys asked questions regarding educational aspirations, perceived mother's educational aspirations, parent's actual educational expectations, students' occupational expectations, racial group membership and socioeconomic status (father's education, mother's education, family income, and material household items). The results indicated that white males, females and their parents have higher educational and occupational aspirations/expectations than have black females, males and their parents. However, once social class is controlled, mixed patterns of racial and gender differences appear in educational and occupational aspirations/expectations between black and white students and their parents (Solorzano, 1990).

In fact, Solorzano, 1990 stated that when controlling for lower levels of the

"resources" associated with achievement and ambition (status origins, academic aptitude, and academic performance), black educational plans are slightly higher than those of whites and the occupational status expectations of black females are second only to those of white females (Solorzano, 1990).

Epps and Jackson (1985) also compared the relationship of socioeconomic status, ability, and selected school variables to achievement test scores and grades of Black high school seniors in 2 nationally representative samples: the National Longitudinal Study of 1972 and the 1980 High School and Beyond sample. Their findings supported that Black high achievers have high educational aspirations and these aspirations are directly influenced by socioeconomic status (Epps, 1985).

Alexander, Riordan, Fennessey and Pallas (1982) supported this when analyzing data from the High School and Beyond data set. They found modest differentials between blacks and whites (generally showing blacks to have higher completion rates) and substantial differences by socioeconomic status. They also reported a significant race-socioeconomic status interaction. In terms of their prospects for attaining the Bachelor of Arts degree, low and middle socioeconomic status black students apparently had a small advantage over corresponding white students, whereas high socioeconomic status white students had better prospects for degree attainment than corresponding black students (Alexander, 1982).

The results of the studies comparing the scores of black and white students suggests that race does indeed play a role in the relationship between socioeconomic status and academic achievement. Moreover, when examining the data on Hispanic

students, the role of ethnicity seems to eliminate socioeconomic status as a variable in the achievement correlation.

Data was taken from the first year follow-up of the High School and Beyond longitudinal survey. Looking at a sub-sample of the 1, 252 students identifying themselves as female and Hispanic, the variables explored were: culture and language, socioeconomic status, sex roles, college admission criteria, financial aid, culture shock, aspiration and motivation.

The results suggested that educational aspirations were the most important predictor of college attendance and persistence for Hispanic women. Hispanic women whose mother had completed four or more years of college had more of a tendency to pursue a higher education and also persist once they were in college (Cardoza, 1991).

According to this data set, while socioeconomic status has proven to be an important correlate of academic achievement for non-Hispanic, Cardoza reported that this was not the case with the Hispanic population. Cardoza stated that the findings suggested that it was not socioeconomic status in general, but the depressed socioeconomic position that most Hispanic families begin with that explained academic achievement or lack of it (Cardoza, 1991).

Another study conducted from the High School and Beyond data set was conducted by Fernandez, Paulsen and Hirano-Nakanishi (1989). Like Cardoza, results indicated that there were clear socioeconomic status differences across the various ethnic groups. They reported that non-Hispanic whites tended to be the most affluent on the socioeconomic status scale, while Mexican Americans were the least affluent. Contrary to



their hypotheses, they found that the effects of socioeconomic status were weak relative to other predictors in the models. In fact, the corresponding effects for Hispanics and blacks were not significantly different from zero once the effects of the other variables were controlled. Therefore, they concluded that the socioeconomic status scale is significant only for non-Hispanic whites (Fernandez, 1989).

### Conclusions

After examining the studies contained in this literature review, it is apparent that few consistent results exist surrounding the relationship between socioeconomic status and academic achievement. Some researchers have attributed these inconsistent findings to the results of non-standardized measurements of both socioeconomic status and achievement. Others claim that the inconsistencies are due to additional variables such as race.

This thesis hopes to explore the relationship between socioeconomic status and achievement as a whole and then further analyze any differences according to four ethnic populations: Caucasian Americans, African Americans, Asian Americans and Hispanic Americans.

For this study, students' perceived socioeconomic status and parental education levels are used, alone and combined, to represent the socioeconomic status variable. Academic achievement was measured by two separate factors: college perceived achievement and college persistence intentions rates. The next chapter discusses the subjects, measures and the procedures for the empirical study.

## CHAPTER III

### METHOD

#### Participants and Procedures

Survey questionnaires were mailed to 400 second-year and third-year students attending Loyola University Chicago. Data from the Perceived Socioeconomic Status Scale, College Persistence Intentions Scale, College Perceived Achievement Scale and Parental Education Level were used. These measures were part of the larger, College Experience Survey. Participants were randomly selected and consisted of four racial/ethnicity groups (African American, Asian American, Caucasian, Hispanic American). Participation was confidential and voluntary. One follow-up reminder and one remailing of the survey was conducted in anticipation that a 50% response rate would be achieved.

After an initial and follow-up mailing, 193 usable questionnaires were returned resulting in a response rate of 48%. 146 (75.6%) were female, 46 (23.8%) were male and 1 (.5%) did not give a response for the gender item. The ages of respondents follow: 61 (31.6%) were age 20, 59 (30.6%) were age 21, 34 (17.6%) were age 22, 10 (5.2%) were age 23, 8 (4.2%) were between 24-25, 8 (4.2%) were between the ages 27-35, 5 (2.6%) were between 18-19, and 1 (.5%) was age 47. Of the 193 respondents, 7 (3.6%)

did not give a response to the date of birth/year item. The mean was 21.5 years of age and the median was 21 years of age with a standard deviation of 2.86.

The demographics for ethnicity are as follows. Out of 193 respondents, 60 or 31.1% were Caucasian, 48 or 24.9% were Asian American, 47 or 24.4 % were Hispanic American and 38 or 19.7% were African American.

### Instruments

#### Perceived Socioeconomic Status Scale

The scale consisted of a total of 8 items and participants indicated how their family's income, status and education level compared to others in their neighborhood, community, state, and country. Four questions surveyed the participant's present or current perceptions of family income, status, and education levels compared to other people in their respective neighborhood, community, state and country. Four questions inquired about earlier or past ("while growing up") perceptions of family income, status and education levels compared to other people in their respective neighborhood, community, state, and country. Participants responded on a 3-point scale of more advantages, equal advantages, and fewer advantages.

#### College Persistence Intentions Scale

The scale consists of 5 items randomly ordered that requested that participants indicate their level of agreement or disagreement on a 4-point scale ranging from strongly disagree (1) to strongly agree (4). Participants responded to 5 items about persistence

intentions (e.g., "I am thinking about dropping out of college"). One item was "Getting a college degree is a high priority to me." Tracey and Sedlacek (1984) found that indicating certainty in obtaining a degree significantly predicts minority student retention.

#### College Perceived Achievement Scale

The scale consists of 6 items randomly ordered that requested that participants indicate their level of agreement or disagreement on a 4-point scale ranging from strongly disagree (1) to strongly agree (4). The questions asked participant's opinion on their academic performance and ability to perform well (e.g., "I have not been doing well on examinations", "I have been doing well on papers I write for classes).

#### Parent's Education Level

The scale requests the student to check the highest level of education obtained per parent from an 8 scale checklist. Each parent had its own checklist. Items were listed sequentially starting at "grammar school or less" and ending with parent having "received graduate degrees".

## CHAPTER IV

### RESULTS

#### Factor Structure

Responses on the Perceived Socioeconomic Status Scale were subjected to a Principal Components Analysis (PCA) with varimax rotation. To satisfy Kaiser's and Thurstone's criteria (Tinsley & Tinsley, 1987), consideration of the number of factors with eigenvalues above 1.0, examination of the scree plot, evaluation of the discontinuity between factors, and attention to meaningfulness of a given solution were conducted. The scree plot was examined in considering the number of factors to rotate, according to Cattell's scree test. Kaiser's criteria of observing eigenvalues of 1.0 or more suggested extraction of two components that were retained, which accounted for 77.6% of the total variance. A value of .50 was used to cut off items that did not relate to a component. All 8 items were retained because they had a value of .50 or above.

Factor loadings from the principal components analysis are the following, (see Table 1). Factor 1 consisted of 4 items with factor loadings that ranged from .90 (perceived present socioeconomic status compared to country) to .87 (perceived past socioeconomic status compared to state) and accounted for 54.3% of the estimated common variance. Essentially, Factor 1 assessed how students ranked their families, current and past income, status, and education level compared to others in their state and

country. Factor 2 also consisted of 4 items with factor loadings that ranged from .85 (perceived present socioeconomic status compared to neighborhood) to .80 (perceived present socioeconomic status compared to community). Factor 2 assessed how students ranked their families, current and past income, status, and education level compared to others in their neighborhood and community.

TABLE 1

**FACTOR LOADING ESTIMATES OF THE TWO-FACTOR SOLUTION FOR THE PERCEIVED SOCIOECONOMIC STATUS SCALE**

Factor scale/ item summary	I	II
<b>Factor I: Perceived SES Compared to State &amp; Country</b>		
At present, how does your family's income, status and education level compare to others in your country	.90	.14
While growing up, how did your family's income, status and education level compare to others in your country	.89	.09
At present, how does your family's income, status and education level compare to others in your state	.87	.27
While growing up, how did your family's income, status and education level compare to others in your state	.87	.23
<b>Factor II: Perceived SES Compared to Neighborhood &amp; Community</b>		
At present, how does your family's income, status and education level compare to others in your neighborhood	.14	.85
While growing up, how did your family's income, status and education level compare to others in your neighborhood	.08	.83
While growing up, how did your family's income, status and education level compare to others in your community	.20	.82
At present, how does your family's income, status and education level compare to others in your community	.26	.80

The dependent variables of College Persistence Intentions and College Perceived Achievement were developed by using another Principal Components Analysis with varimax rotation. A five factor solution emerged. Of the 42 original items, 36 were retained that had a value of .50 or above. Factor loadings from the principal components analysis are the following, (see Table 2). Factor 1: The College Social Integration Scale consisted of 15 items that ranged from .78 (I have a good relationship with other students) to .50 (I feel I am to different from the other students at this college). Factor 2: The College Perceived Achievement Scale consisted of 6 items that ranged from .78 (I should be working harder in school) to .57 (I have confidence that I will perform well at this institution). Factor 3: The College Satisfaction Scale consisted of 5 items that ranged from .74 (I am dissatisfied with the quality of my courses) to .62 (I am satisfied with the professors I have in my courses). Factor 4: The College Persistence Intentions Scale consisted of 5 items that ranged from .76 (Getting a college degree is a high priority to me) to .56 (I know what I want to get out of college). Factor 5: The College Motivation Scale consisted of 5 items that ranged from .76 (I am motivated in my studies) to .51 (I haven't been very efficient in my use of study time).

TABLE 2

**FACTOR LOADING ESTIMATES OF THE FIVE-FACTOR SOLUTION FOR THE  
ACHIEVEMENT AND PERSISTENCE INTENTIONS SCALES**

Factor scale/ item summary	I	II	III	IV	V
<b>Factor I: College Social Integration</b>					
I have good relationships with other students.	.78	-.02	-.02	.17	.10
I'm making as many friends as I would like at this college.	.77	.02	.12	-.13	-.05
I feel comfortable socially in this college setting.	.76	-.00	.02	.11	.08
I am meeting as many people as I would like here.	.75	.08	.14	-.10	-.08
I haven't had many satisfying informal contacts with other students at this school.	.73	.07	.00	.06	.13
I have confidence that I will be able to form close friendships with other students here.	.71	-.04	-.04	.23	.10
I feel lonely when I'm on campus.	.71	.07	.19	.03	.04
I am dissatisfied with my social life here.	.71	.09	.25	-.06	-.07
I don't think that I will be able to meet as many people as I want here.	.70	.12	.19	.01	.00
I feel accepted by other students here.	.70	-.05	.12	.15	.10
I haven't been mixing well with other people on campus.	.68	.08	.29	.03	.00
There are other students I can call on for help when I am having difficulty with my course work.	.66	.04	-.01	.25	.08
I have some good friends or acquaintances at this institution with whom I can talk about any problems I may have.	.60	.01	-.10	.25	.00
I wish I felt closer to other students here.	.58	.11	.22	-.18	-.10
I feel I am too different from the other students at this college.	.50	.06	.18	.14	.10
<b>Factor II: College Perceived Achievement</b>					
I should be working harder in school.	.00	.78	-.09	-.04	.18
I have not been doing well on examinations.	.01	.74	.07	.05	.20
I need to improve my study skills.	-.06	.74	-.06	-.05	.20
I am satisfied with my academic performance.	.09	.72	-.04	.08	.09
I have been doing well on the papers I write for courses.	.04	.70	.05	.14	-.05
I have confidence that I will perform well at this institution.	.08	.57	.14	.28	.29
<b>Factor III: College Satisfaction</b>					
I am dissatisfied with the quality of my courses.	.00	.09	.74	.11	.02
I am dissatisfied with the variety of courses available at this college.	-.01	.20	.71	.07	.00
I wish I had chosen to go to another college.	.32	-.01	.64	.15	.19
I have been giving a lot of thought to transferring to another college.	.09	-.09	.62	.29	.10
I am satisfied with the professors I have in my courses.	.31	-.04	.62	.07	.20
<b>Factor IV: College Persistence Intentions</b>					
Getting a college degree is a high priority to me.	.15	.02	.12	.76	-.05
I am thinking about dropping out of college.	.06	.08	.15	.72	.10
I am pleased about my decision to go to college.	.14	.08	.14	.68	.01
I have been thinking about taking time off from college and finishing later.	.06	.10	.12	.59	.33
I know what I want to get out of college.	.08	.09	.19	.56	.09
<b>Factor V: College Motivation</b>					
I am motivated in my studies.	.09	.15	.14	.13	.76
I have trouble getting started on homework assignments.	-.02	.19	.12	.13	.73
I haven't had much motivation for studying lately.	.09	.22	.22	.05	.72
I am keeping up with my school work.	.08	.30	.07	.02	.59
I haven't been very efficient in my use of study time.	.00	.47	.00	.00	.51



### Reliability

Internal consistency reliability was estimated using Cronbach's coefficient alpha for the Perceived Socioeconomic Status Scale. The total reliability for the scale was .79. The reliability estimates of the perceived socioeconomic subscales are the following: Nation and Country, .92; Neighborhoods and Community, .86.

Internal consistency reliability estimation for the Achievement and Persistence Scale was .91. The estimates for the subscales were: College Social Integration, .92; College Perceived Achievement, .84; College School Satisfaction, .79; College Persistent Intentions, .76; and College Motivation, .81.

### Validity

In order to establish construct validity, the variables were examined in a correlation matrix to determine whether evidence existed to establish convergent and discriminant validity.

Convergent validity is established when variables on the test undergoing construct validation correlate highly in the predicted direction with other related variables. The correlation matrix reported in Table 3, illustrates that the three socioeconomic status variables significantly relate to each other. The significant relationships of these SES variables suggests evidence of convergent validity.

Discriminant validity is established when a validity coefficient shows a statistically insignificant relationship between test scores and other variables with which scores on the test being construct-validated should not theoretically be correlated. The correlation matrix

(Table 3) provides evidence for discriminant validity by reporting that the three socioeconomic status variables do not significantly correlate to the other variables.

TABLE 3  
CORRELATION MATRIX OF SES VARIABLES  
AND OTHER SELECTED VARIABLES

SCALE	1	2	3	4	5	X	SD
Parent Education Level		.21**	.50**	.14*	.09	4.3	2.1
Perceived SES Compared to State & Country			.38**	.15*	.03	2.0	.52
Perceived SES Compared to Neighborhood & Community				.12	.00	1.9	.64
College Persistence Intentions					.20**	3.6	.48
College Perceived Achievement						2.5	.57

\*P<.05 \*\*P<.01

### Regression analysis

Simultaneous regression analyses were conducted separately for each ethnic group using the three SES variables as predictors and persistence intentions and achievement as criterion variables. Results are displayed in Table 4. The  $R^2$  for the entire sample on college persistence intentions was .03. This means that the SES variables accounted for 3 % of the variance in college persistence intention scores. For Anglo students, the  $R^2$  increases to .18. For African American, Asian American and Hispanic American the  $r$  squared are .04, .04 and .01 respectively. For college perceived achievement, the  $R^2$  for the entire population was .01.

When analyzed by ethnicity, the  $R^2$  were: Anglo (.11), African American (.08), Asian American (.07) and Hispanic American (.09).

Since the data revealed a significant relationship between SES variables and college persistence intentions for only the Anglo population, it suggests that race/ethnicity moderated the relationship.

TABLE 4

A SIMULTANEOUS REGRESSION OF SES VARIABLES ON COLLEGE  
PERSISTENCE INTENTIONS AND COLLEGE PERCEIVED ACHIEVEMENT  
AN EXAMINATION OF ETHNIC DIFFERENCES

Relationship	R <sup>2</sup>	Beta
<u>College Persistence Intentions</u>		
Entire Sample (non-split)	.03	
Perceived SES Compared to State & Country		.02
Perceived SES Compared to Neighborhood & Community		.13
Parent Education Level		.10
Anglo American	.18**	
Perceived SES Compared to State & Country		.29
Perceived SES Compared to Neighborhood & Community		.13
Parent Education Level		.14
African American	.04	
Perceived SES Compared to State & Country		- .14
Perceived SES Compared to Neighborhood & Community		- .03
Parent Education Level		.19
Asian American	.04	
Perceived SES Compared to State & Country		- .03
Perceived SES Compared to Neighborhood & Community		.13
Parent Education Level		.14
Hispanic American	.01	
Perceived SES Compared to State & Country		- .02
Perceived SES Compared to Neighborhood & Community		.13
Parent Education Level		.03
<u>College Perceived Achievement</u>		
Entire Sample (non-split)	.01	
Perceived SES Compared to State & Country		- .09
Perceived SES Compared to Neighborhood & Community		.04
Parent Education Level		.14
Caucasian	.11	
Perceived SES Compared to State & Country		- .36
Perceived SES Compared to Neighborhood & Community		.13
Parent Education Level		.08
African American	.08	
Perceived SES Compared to State & Country		- .08
Perceived SES Compared to Neighborhood & Community		.01
Parent Education Level		.30
Asian American	.07	
Perceived SES Compared to State & Country		.36
Perceived SES Compared to Neighborhood & Community		- .16
Parent Education Level		- .19
Hispanic American	.09	
Perceived SES Compared to State & Country		.01
Perceived SES Compared to Neighborhood & Community		.28
Parent Education Level		.05

\*P&lt;.05 \*\*P&lt;.01

## CHAPTER V

### DISCUSSION

#### Summary and Discussion of Results

As a whole, the relationship between socioeconomic status variables on college persistence intentions accounted for only 3% of the variance and was not significant. However, when looking at the ethnicities separately, socioeconomic status accounted for 18% of the variance for Anglo students which was significant at the .001 level. No significant relationships emerged for the other ethnicities for college persistence intentions or college academic achievement.

The fact that a significant relationship existed between the SES variables and college persistence intentions for only Anglo students suggests that race/ethnicity act as a moderator to the relationship.

Another explanation for the lack of a significant relationship between socioeconomic status and achievement for the non-Anglo students might be due to selection bias. Attending college can be viewed as a form of academic achievement. Therefore, the students that were surveyed may have already overcome any potential barriers socioeconomic status have on academic achievement.

### Limitations

One constraint of this research was the inability to use results from the regression as explanatory or causal statements. Another constraint of this research was the inability to gain access to college grade point averages, college degree attainment and actual income levels of students. Therefore, perceptions of both of these variables were used.

Another limitation was that the data was gathered at a medium-sized urban university in the Midwest with many students living off-campus with their families and commuting to the university. Although the sample was ethnically diverse, the data may produce results that may not generalize to more traditional universities (where most of the students live on-campus).

### Future Research And Implications

While there have been a significant amount of studies focusing on the relationship between socioeconomic status and academic achievement, an agreement has yet to be reached about the nature of the relationship (direct or indirect) and its strength. As mentioned before, White (1982) attributes this lack of statistical unity to the inconsistencies used in defining and measuring the terms socioeconomic status and academic achievement. Until a uniform measurement of these items exists, homogeneity of the research on this topic is doubtful. However, this thesis suggests that there is more to the discrepancies among the past studies than inconsistent definitions and measuring tools.

The results suggest the possibility of race/ethnicity as a moderator to the socioeconomic status and college persistence intentions relationship. Future research is

needed to confirm these results and explore the reasons behind the differences.

Finally, it was also suggested that the minorities attending college had overcome any barriers SES variables would have on academic achievement. Future research might investigate this possibility and examine the coping strategies used to overcome the socioeconomic barriers.

## APPENDIX

## PERMISSION LETTER

Deborah A. Zukerman  
4125 Yorkshire Lane  
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V. Scott Solberg  
University of Wisconsin- Milwaukee  
Department of Educational Psychology  
Enderis Hall #745 P.O. Box 413  
Milwaukee, WI 53201

January 1, 1996

Dear Dr. Solberg,

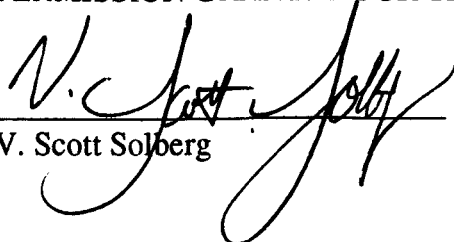
I am completing a thesis at Loyola University Chicago entitled "The Relationship Between Perceived Socioeconomic Status and College Achievement/ Persistence." I would like your permission to reprint in my thesis excerpts from inventories in the College Experience Survey. The excerpts to be reprinted are the Perceived Socioeconomic Status Scale, Achievement Scale and the College Persistence Intentions Scale. The requested permission extends to any future revisions and editions of my thesis, including non-exclusive world rights in all languages, and to the prospective publication of my thesis by University Microfilms, Inc. These rights will in no way restrict republication of the material in any other form by you or others authorized by you. Your signing of this letter will also confirm that you own the copyright to the above-described material.

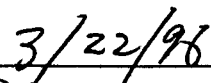
If these arrangements meet your approval, please sign this letter where indicated. Thank you very much.

Sincerely,

Deborah A. Zukerman

PERMISSION GRANTED FOR THE USE OF THE REQUESTED ABOVE:

  
\_\_\_\_\_  
V. Scott Solberg

  
\_\_\_\_\_  
Date



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## VITA

The author, Deborah A. Zukerman, was born and raised in a northern suburb of Chicago, Illinois. In 1993, Deborah received a Bachelor of Arts with Honors in Psychology and a Bachelor of Science-Cum Laude in Human Development and Family Studies at the University of Missouri at Columbia. While attending the University of Missouri, she was a member of Psy Chi and Delta Gamma Sigma Honoraries. In August 1993, Deborah entered Loyola University and began working on her Master of Arts in Community Counseling. While attending Loyola, Deborah completed her counseling practicum at Family Service and Mental Health Center in Oak Park, Illinois.

## THESIS APPROVAL SHEET

The thesis submitted by Deborah A. Zukerman has been read and approved by the following committee:

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Professor, Counseling Psychology  
Loyola University Chicago

V. Scott Solberg, Ph.D.  
Associate Professor, Urban Education  
University of Wisconsin-Milwaukee

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

The thesis is, therefore, accepted in partial fulfillment of the requirements for the degree of Master of Arts.

3/27/82  
Date

  
Director's Signature