Demographic Differences in Persistence Intentions Related to Differences in Social Integration, Academic Integration, Social Support, Gender and Parents' Educational Level

David L. Letwat
Loyola University Chicago

Follow this and additional works at: https://ecommons.luc.edu/luc_theses

Part of the Counseling Psychology Commons

Recommended Citation
https://ecommons.luc.edu/luc_theses/4183

This Thesis is brought to you for free and open access by the Theses and Dissertations at Loyola eCommons. It has been accepted for inclusion in Master's Theses by an authorized administrator of Loyola eCommons. For more information, please contact ecommons@luc.edu.

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License.
Copyright © 1996 David L. Letwat
LOYOLA UNIVERSITY CHICAGO

DEMOGRAPHIC DIFFERENCES IN PERSISTENCE INTENTIONS RELATED TO DIFFERENCES IN SOCIAL INTEGRATION, ACADEMIC INTEGRATION, SOCIAL SUPPORT, GENDER AND PARENTS' EDUCATIONAL LEVEL

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

DEPARTMENT OF COUNSELING PSYCHOLOGY

BY DAVID N. LETWAT

CHICAGO, ILLINOIS MAY 1996
Copyright by David N. Letwat, 1995
All rights reserved.
ACKNOWLEDGEMENTS

I want to especially thank Dr. V. Scott Solberg for all his patience and constructive criticism throughout the preparation of this thesis. I am indebted to him for being compassionate as I experienced difficulty in writing this thesis. Both he and Dr. Suzette Speight provided me with the guidance I needed to graduate with my M.A. and succeed at Loyola University Chicago.

I am grateful for the tremendously helpful advice Dr. Speight gave me as my advisor. She always made time for my questions, and greatly contributed to my successful navigation of curriculum requirements. Her candor was greatly appreciated.

I am also thankful for the support I received from my lovely wife, Sheryl, throughout the writing of this thesis. She has been an inspiration for me since the day I met her.
# TABLE OF CONTENTS

**ACKNOWLEDGMENTS** ........................................ iii

**LIST OF TABLES** ........................................ v

**CHAPTER**

I. **INTRODUCTION** ....................................... 1

II. **REVIEW OF THE LITERATURE** ..................... 5

- Tinto’s Model ........................................... 5
- Reconceptualization of Tinto’s Model .............. 7
- Academic and Social Integration ................. 7
- Gender .................................................. 9
- Ethnicity ............................................. 10
- Educational Level of Parents ..................... 11
- Persistence Intentions .................. ......... 12
- Social Support ...................................... 12
- Conclusion ........................................... 14
- Research Questions ................................. 15

III. **METHOD** ........................................... 16

- Participants and Procedure ...................... 16
- Measures ............................................. 17
- Instruments .......................................... 17
- Procedure ............................................ 18

IV. **RESULTS** ........................................... 23

- Discussion ........................................... 32

**REFERENCES** ........................................ 37

**VITA** .................................................. 52
### LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Race and Gender Distribution</td>
<td>17</td>
</tr>
<tr>
<td>2. Factor Loading Estimates</td>
<td>21</td>
</tr>
<tr>
<td>3. Intercorrelations of Primary Variables</td>
<td>24</td>
</tr>
<tr>
<td>4. Means and Standard Deviations for All Groups</td>
<td>25</td>
</tr>
<tr>
<td>5. Multiple Regression Examination</td>
<td>26</td>
</tr>
<tr>
<td>6. Means and Standard Deviations Among Gender</td>
<td>28</td>
</tr>
<tr>
<td>7. Means and Standard Deviations Across Groups</td>
<td>28</td>
</tr>
<tr>
<td>8. Means and Standard Deviations Across Groups</td>
<td>30</td>
</tr>
<tr>
<td>9. Means and Standard Deviations Among Gender</td>
<td>31</td>
</tr>
<tr>
<td>10. Summary Table for Persistence Intentions</td>
<td>31</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

The problem of college student retention affects students in devastating ways. The U.S. Department of Education (1991), for example, has documented the fact that not attaining higher levels of education dramatically reduces one's chances for attaining a higher income. A large body of research evidence suggests that the completion of a bachelor's degree is central to the determination of both occupational status and income (i.e. Bowen, 1977; Jencks et al., 1979; Sewell & Hauser, 1972; Leslie & Brinkman, 1986).

Tinto (1975) devised a model of college student persistence, based on studies of primarily residential university students, in order to explain how students progress through an institution's social systems, as well as its academic systems. He believed that the extent of one's progress in completing a degree is most dependent on how compatible one is with the academic and social systems of one's institution. Tinto theorized that students drop out from college quite often because they do not or cannot adequately integrate themselves academically and socially into their respective institutions.

In fact, Tinto (1993) expects that of the nearly 2.4 million students who entered higher education for the first
time in 1993, over 1.5 million will probably have left their first institution without receiving a degree. Of those, approximately 1.1 million will leave higher education permanently, without ever completing either a two- or a four-year program.

The role of academic and social integration in students attending commuter and residential institutions has been disputed by several researchers. For example, Pascarella, Duby & Iverson (1983), Mutter (1992), Lichtman, Bass & Ager (1989), and Bers & Smith, 1991) reported finding that academic integration is more important than social integration for students attending a primarily commuter institution. Researchers (Pascarella & Chapman, 1983; Pascarella & Terenzini, 1985) have also questioned Tinto’s conception of academic and social integration at residential institutions. They reported finding a compensatory interaction between academic and social integration.

Tinto (1975) also postulated that background traits (i.e. race, gender and parents’ level of education) were important factors in determine college persistence. He believed that their interaction with commitments to the goal of graduation mediated academic and social integration. Research on the influence of ethnicity on academic and social integration has produced mixed results. While some believe that dropout can be blamed on a lack of a certain type of integration for each racial group, further investigation has led others to suggest
that both forms of integration may be needed for minority students (Centric & Thomas, 1970; Shaffer, 1973; Seldacek & Webster, 1978; Allen, Bobo & Fleuranges, 1982; Eddins, 1982; Gosman, Wadkins & Peterson, 1983; Donovan, 1984; Mallinckrodt, 1988; Mallinckrodt & Seldacek, 1987; Pascarella, 1985b; Stoecker, Pascarella & Wolfe, 1988).

Examination of gender effects on integration and persistence has also generated inconsistent findings. Some researchers believe that women and men may cease persisting in different manners, as a result of the gender differences in academic and social integration (Alexander & Eckland, 1974; Pascarella & Terenzini, 1983; Ethington & Smart, 1986; Stage, 1989a; Astin, Hemond & Richardson, 1982; Astin, Korn & Berz, 1990). Additional research findings have led others to question the existence of gender differences (Pascarella, Ethington & Smart, 1988; Pascarella & Wolfe, 1988).

Examinations of the effects of parents' educational level have yielded conflicting results (Griffin & Alexander, 1978; Sewell & Hauser, 1980; Tinto, 1984; Kerckhoff & Jackson, 1982; Karabel & McClelland, 1987; McClendon, 1976). Unfortunately, research on the indirect effects of parents' educational level has not clarified this issue (Gruca, 1988).

The influence of social support in non-Caucasian student persistence on a primarily Caucasian college has been well-researched (Loo & Rolison, 1986; Attinasi, 1989). In addition, faculty and family social support have been shown to
have significant impact on persistence for Caucasian and non-Caucasian students (Pascarella, 1985a, 1985b; Fleming, 1985; Mallinckrodt, 1988; Martin, 1990; Crosson, 1988; Suen, 1985; Sedlacek & Brooks, 1976). However, incorporating the different forms of social support -- peer, family and faculty -- into an examination of Tinto's key concepts, has not been done as part of an examination of persistence intentions for targeted racial student groups.

The purpose of this study was to continue to examine factors which may be associated with persistence for students attending an urban college where the majority of students live off campus. The combined effects of social support variables and Tinto's key concepts on persistence intentions were assessed. It is hoped that a clearer understanding of the influences of persistence intentions will enable higher education professionals to more capably define the attributes that contribute to college student persistence, and in turn, design more effective college retention programs.
CHAPTER II

REVIEW OF THE LITERATURE

According to Lewallen (1993), the literature regarding college persistence/attrition has burgeoned over the last 25 years. Research has resulted in considerable empirical evidence regarding variables significantly related to persistence and has been summarized in several key writings such as Pascarella and Terenzini (1991), Feldman and Newcomb (1969), and Pantages and Creedon (1978).

Tinto's Student Integration Model

Tinto's (1975) persistence model extended Spady's (1970) sociological model of the dropout process by specifically accounting for student background characteristics. While Spady limited his focus to how college experiences, both academic and social, influenced social integration, Tinto focused on the fit between an institution and a student's precollege characteristics.

Tinto's (1975) model suggested that students come to a college or university with a range of background traits (e.g. race, academic aptitude, secondary school achievement, and parents' level of education). These background characteristics lead to initial commitments, both to the goal of graduation from college and to the specific institution
attended. Together with background traits, these initial commitments are hypothesized as influencing not only how well the student will perform academically, but also how he or she will interact with and subsequently become integrated into, the institution's academic and social systems.

Academic integration and social integration, according to Tinto (1975), mediate a student's subsequent commitment to the institution and to the goal of college graduation. These subsequent commitments are seen, along with levels of integration, as having a positive influence on persistence. Other things being equal, it is the students' integration into the academic and social systems of the institution that the model posits as most directly influencing persistence (Stoecker, Pascarella & Wolfle, 1988).

Tinto's model of person-environment fit was formulated after he synthesized previous persistence studies that utilized subject samples at primarily residential, 4-year institutions (Tinto, 1975). His interpretations suggested that institutional characteristics (i.e. type, quality, student composition, and size) and individual characteristics (i.e. commitment to completing college, pre-college educational experiences, and family background) combined to influence college persistence. Later research (Pascarella, Duby & Iverson, 1983; Mutter, 1992; Lichtman, Bass & Ager, 1989; Bers & Smith, 1991) incorporating samples from community colleges and commuter 4-year colleges shed some light on the
validity of Tinto's theory for predicting persistence in these settings.

Reconceptualization of Tinto's Model in a Nonresidential Setting

Pascarella, Duby and Iverson (1983) sought to test the validity of Tinto's Student Integration Model in a commuter institution setting. They extended his model further by considering Bean's (1981) concept of intention to leave or stay. Intent to continue at the institution had the strongest direct effect of any single predictor on freshman year persistence/withdrawal decisions. A limitation of this study was that non-Caucasian students were underrepresented. Underrepresentation is problematic since it lessens the chance of having statistically significant results. Pascarella et al.'s (1983) findings suggest that certain components of Tinto's model cannot effectively explain persistence in commuter colleges, and is better suited for explaining residential college persistence.

Academic and Social Integration

Previous research that explored the importance of academic and social integration has yielded mixed results. For example, early research findings seemed to suggest that compared to Caucasian students, dropout among African-American and Latino students tends to be more a reflection of academic difficulties than of social ones (Kendrick & Thomas, 1970; Shaffer, 1973; Sedlacek & Webster, 1978; Allen, Bobo & Fleuranges, 1982; Eddins, 1982; Gosman, Wadkins & Peterson,
1983; Donovan, 1984).

The results of recent investigations into African-American college persistence seem to conflict with earlier findings. While African-American students who begin college with poor academic preparation may drop out due to academic difficulties, more recent research evidence has suggested that social integration as well as social support may be just as important to their persistence as is academic integration (Mallinckrodt, 1988; Mallinckrodt & Sedlacek, 1987; Pascarella, 1985b; Stoecker, Pascarella & Wolfle, 1988).

As another example of variation in findings related to academic and social integration, Pascarella and Terenzini (1991) concluded that there was a small yet growing body of evidence indicating that measures of social and academic integration tend to have a differential influence on persistence for different kinds of students. They cited research by Pascarella and Chapman (1983b), Pascarella and Terenzini (1983), and Pascarella and Wolfle (1985) conducted at residential institutions which reported finding a compensatory interaction between academic integration and social integration. In other words, academic integration had its strongest positive influence on persistence for students at the lowest levels of social integration. As a student's level of social integration increased, the importance of that student's academic integration for persistence diminished.

Findings from the above three investigations, according
to Pascarella and Terenzini (1991), suggested that the reverse was true for the influence of social integration on persistence at different levels of academic integration. That is, social integration had its strongest positive impact on persistence for students at the lowest levels of academic integration, and as the level of academic integration increased, the importance of social integration decreased.

**Gender**

The research literature centering on the relationship between gender and persistence reflects two conflicted interpretations. According to Tinto (1993), a general pattern that has emerged from research is that compared to males, dropping out for females is determined more by social forces than by academic forces. As a result, female dropout has been interpreted to be influenced more by social integration, and male dropout has been interpreted to be influenced more by academic integration (Alexander & Eckland, 1974; Pascarella & Terenzini, 1983; Ethington & Smart, 1986; Stage, 1989a).

Researchers have also found gender differences in the nature of withdrawal, and cited these differences as further evidence suggesting the existence of gender differences in the importance of academic and social integration. According to Astin, Hemon and Richardson (1982) and Astin, Korn and Berz (1990), women are more likely to depart voluntarily than men.

Although the above researchers found that men in their studies were more likely to remain in college until forced to
leave for academic reasons, the findings from two additional investigations call into question the existence of gender differences regarding integration. Pascarella, Ethington and Smart (1988), and Pascarella and Wolfle (1988) found little to suggest that bachelor's degree completion for either gender is differentially influenced by level of social or academic integration. Therefore, the literature regarding gender differences in persistence appears inconclusive at this time.

**Ethnicity**

Investigations into racial differences in college persistence have primarily focused on the comparison between Caucasian, African-American students (e.g. Mallinckrodt, 1988; Pascarella, 1985; Tracey & Seldacek, 1984; Tracey & Seldacek, 1985; Tracey & Seldacek, 1987; Nettles, 1988; Lichtman, Bass & Ager, 1989; Hood, 1990; Thompson & Fretz, 1991), and Latino students (Padilla & Pavel, 1986; Nora, 1987; Nora, 1990; Attinasi, 1989; Flores, 1992), or analyzed one group separately. These researchers have consistently concluded from their findings that African-American and Latino students have significantly lower persistence rates than Caucasian students.

One college persistence study sought to include Asian students, as well as African-American, Latino and Caucasian students. Band and Okinawa (1990) incorporated Bean's (b) model with background variables as they compared persistence rates with first- and fourth-year students. They found that
Asian-American and African-American freshman were less satisfied than the nonpersisters and more satisfied than the persisters, and the opposite was true for Latino and Caucasian students. That is, they were more extreme both with respect to dissatisfaction as well as satisfaction as freshman.

Educational Level of Parents

A search of the literature revealed that the influence of parents' level of education has been incorporated into status attainment research. For example, the results of some investigations have suggested that level of parents' education directly enhances sons' and daughters' occupational status (Griffin & Alexander, 1978; Sewell & Hauser, 1980; Tinto, 1984). Researchers have also found little if, if any, evidence that points to a parental influence on children's' status attainments (Kerckhoff & Jackson, 1982; Karabel & McClelland, 1987; McClendon, 1976).

Gruca (1988) hypothesized that the major influence of parents' educational level on children's' occupational status is indirect. She controlled for possible confounding causes, such as precollege educational and occupational aspirations, selectivity and size of institution attended, family income and college grades. Her preliminary results indicated that either parent being a college graduate had no statistically significant direct effect on the status of a child's job nine years after initial college enrollment. She also found several small statistically significant positive indirect
effects on children's job status irrespective of race or
gender.

**Persistence Intentions**

Research has shown that individual intentions regarding
participation in higher education and attendance at a specific
institution are important predictors of the likelihood of
degree completion (Panos & Astin, 1968; Rossman & Kirk, 1970;
Astin, 1975; Weingartner, 1981; Bean, 1982a; Wilder & Kellams,
1987; Rodgers & Pratt, 1989). This author could not locate
previous research which examined direct predictors of
persistence intentions.

**Social Support**

The college persistence research seems to ascribe an
important role to social support in keeping students motivated
to stay in school (Mallinckrodt, 1988; Cardinal, 1981; Tracey
& Sedlacek, 1984). Several researchers have yielded findings
that highlight the importance of supportive communities on
campus (House, 1981; McCarthy, Pretty & Catano, 1990; Pearson,
1990; Jacobi, 1991). They focused on the role of supportive
relationships in preventing and reducing the harmful effects
of stress and enhancing students' ability to cope effectively
with stress in specific social settings.

Research has tended to support the conclusion that the
establishment of supportive personal relationships with
faculty, peers and other significant people, enables students
to better cope with the demands of the college environment
Research has also demonstrated that the existence of supportive relationships on campus is crucial for the persistence and intellectual development of all students, but especially for African-American students (Fleming, 1985; Mallinckrodt, 1988; Martin, 1990; Crosson, 1988; Suen, 1983; Allen, 1985; Sedlacek & Brooks, 1976).

Pascarella's (1985a, 1985b) findings based on students in 350 different 4-year colleges suggest that social integration among African-American students may be more influenced by formal forms of association than it is for Anglo students. While he found that informal types of association appear to matter most for Caucasian students, Mallinckrodt's (1988) findings suggest that social support from members of the campus community are crucial for African-American students, and family members' social support is more important for Caucasian students.

The difficulty that students of color face in gaining access to the mainstream social life and supportive communities on a largely White campus has been well documented (Loo & Rolison, 1986; Attinasi, 1989). The excluding effects of racism can be a strong indication of how a college community values and treats students of color, and influences students' perceptions of isolation and marginality, which affect persistence decisions (Lowe, 1989; Martin, 1990;
Johnson & Rodriguez, 1991). Murguia, Padilla and Pavel (1991) have found that when students sense marginality, as if they were in enclaves, they are more likely to withdraw.

The importance of receiving faculty support has been shown to offset the effects of a lack of social or academic integration, since the academic and social systems of a college are mutually interdependent and reciprocal (Tinto, 1975; Stage, 1989b).

Student-faculty contact appears to be a crucial element in the persistence process (Pascarella & Terenzini, 1979; Terenzini & Pascarella, 1980; Pascarella & Wolfle, 1985; Terenzini & Wright, 1987). Its importance increases when contact extends beyond the formal boundaries of the classroom to the various informal settings which characterize college life (Stage, 1989a). When students perceive their encounters with faculty as formal and limited to academic topics, an increase in dropout occurs (Pascarella & Terenzini, 1977).

Research has shown that classroom behaviors influence student perceptions as to the receptivity of faculty to further student contacts outside of the classroom (Wilson, Wood & Gaff, 1974; Astin, 1975). Terenzini and Wright (1987) have found that the occurrence of student-faculty interactions outside of the classroom influences students' decisions to persist.

**Conclusion**

There is a need to include targeted racial groups and the
construct of persistence intentions. These have not been incorporated together in past investigations of the phenomenon of college persistence. Moreover, little has been done to simultaneously examine the relationship between race, persistence intentions and year in school, while employing a stratified random sampling procedure.

The purpose of this study is to assess the relationship between degree of academic integration, social integration, perceived availability of social support, parents' educational level, year in school, and persistence intentions among undergraduate college students, as related to ethnicity and gender.

Research Questions

The first question investigated ethnicity and gender, as related to social integration, academic integration, perceived availability of social support, parents' educational level and persistence intentions. It was expected (hypothesis 1) that ethnicity and gender would be significant predictors of social integration.

The second question examined possible predictors of persistence intentions. It was expected (hypothesis 2) that social integration, academic integration and parents' educational level would be the most significant predictors of persistence intentions among all seven variables.
CHAPTER III

METHOD

Participants and Procedure

Survey data were collected from 327 undergraduate students at a private, urban, coeducational Jesuit university in the Midwest. With regard to gender, 96 (29%) of the participants were male, and 231 (71%) were female. Regarding participants' racial identification, 91 were Caucasian (28%), 64 were African-American (19%), 88 were Asian-American (27%) and 84 were Latino (26%), for a total of 327 respondents. See Table 1 for a distribution of participants by race and gender. They were among 800 undergraduates randomly selected through computer-generated enrollment data during the middle of the second semester to receive the College Experience Survey (Solberg, 1993). Two-hundred students were randomly selected from each racial group (Caucasian, African-American, Asian-American and Latino). For each racial group, 50 students were randomly selected from each of the four class levels. Surveys were mailed to participants with postage-paid return envelopes. Postcard reminders were mailed to nonresponsive subjects two and four weeks after the initial mailing. A second survey was mailed out to nonresponsive subjects four weeks after the initial mailing. The last mailing was timed
to coincide with phone calls in order to persuade subjects to complete and mail their surveys. These follow-up efforts helped to increase the total of usable surveys returned to 41%. Students were not paid for completing the surveys. However, participants were informed that they would become eligible to win one of two $25 gift certificates in return for mailing back a completed survey. Both gift certificates were awarded after all of the usable surveys were returned.

Table 1
Race and Gender Distribution

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian</td>
<td>91</td>
<td>30</td>
<td>61</td>
</tr>
<tr>
<td>African-American</td>
<td>64</td>
<td>14</td>
<td>50</td>
</tr>
<tr>
<td>Asian-American</td>
<td>88</td>
<td>29</td>
<td>59</td>
</tr>
<tr>
<td>Latino</td>
<td>84</td>
<td>23</td>
<td>61</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>327</td>
<td>96</td>
<td>231</td>
</tr>
</tbody>
</table>

Measures

*Family Social Support.* The Family Social Support Scale (FSSS) (Solberg et al., 1993) is an empirically constructed 10-item scale developed to measure perceived availability of social support from family members. Respondents use a 5-point Likert scale—strongly disagree (1), disagree (2), neutral (3), agree (4), strongly agree (5)—to rate each statement and are directed to make ratings based on "the degree to which you
agree with the following statements about your current relationships with family members." Sample items include "There is a family member I could talk to about important decisions in my life," "There is no one in my family who shares my interests and concerns," "I feel a strong emotional bond with at least one member of my family," "There are family members who admire my talents and abilities," and "There is no one in my family I can depend on for aid if I really need it." The ten items were summed together to form a single index of family social support with higher mean values indicating higher perceived availability of family social support. Internal consistency using coefficient alpha was .43.

Peer Social Support. The Peer Social Support Scale (PSSS) (Solberg et al., 1993) is an empirically constructed 10-item scale developed to measure perceived availability of social support from friends at the university. Respondents use a 5-point Likert scale—strongly disagree (1), disagree (2), neutral (3), agree (4), strongly agree (5)—to rate each statement and are directed to make ratings based on "the degree to which you agree with the following statements about your current relationships with friends at the university." Sample items include "I have a friend I could talk to about important decisions in my life," "I have no friend who shares my interests and concerns," "I have no friend with whom I feel comfortable discussing my problems," "I have friends who admire my talents and abilities," and "I have a friend I can
depend on for aid if I really needed it." The ten items were summed together to form a single index of peer social support with higher mean values indicating higher perceived availability of social support from friends at the university. Internal consistency using coefficient alpha was .80.

Social support items were selected and adapted from the Social Provisions Scale (SPS; Russell & Cutrona, 1984). While the entire SPS consists of 24 items, only the highest loading item from each of the five subscales was utilized or adapted in this study. The selected item was "I have close relationships that provide me with a sense of emotional security and well-being." The other four SPS items that were adapted for this study were "I feel that I do not have close personal relationships with other people," "I feel a strong emotional bond with at least one other person," "I have acquaintances I can depend upon to do social activities," and "I lack a feeling of intimacy with another person." Internal consistency using coefficient alpha was .80.

Integration, Faculty Support and Persistence Intentions. The Integration, Faculty Support and Persistence Intentions Scale (IFSPIS) (Solberg et al., 1993) is an empirically constructed 16-item scale developed in order to measure academic and social integration among fellow students, perceived social support from faculty members and student persistence intentions. Respondents use a 5-point Likert scale—strongly disagree (1), disagree (2), neutral (3), agree
(4), strongly disagree (5)—to rate each statement and are directed to make ratings based on "your agreement or disagreement with the following statements." Some items were adapted from Pascarella & Terenzini's (1980) scales that were used as constituent measures of academic and social integration. An intention item similar to the one used by Pascarella, Duby & Iverson (1983) in their attempt to reconceptualize Tinto's (1975) model in a commuter institution setting is included in this scale. The remaining items intended to measure persistence intentions were either empirically derived or a variation of noncognitive predictors developed by Sedlacek & Brooks (1976). Internal consistency using coefficient alpha was .73 for all 16 items.

There were four factor analytically derived subscales within the IFSPIS: Academic Integration Subscale (AIS), Social Integration Subscale (SIS), Faculty Support Subscale (FSS) and Persistence Intentions Subscale (PIS). See Table 1 for the loadings of these four clusters of items.
### Table 2
Factor Loading Estimates for the Four Subscales

<table>
<thead>
<tr>
<th>Factor scale/item summary</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Academic Integration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performed as anticipated</td>
<td>.53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive influence</td>
<td>.47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Values/attitudes different</td>
<td>.45</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Social Integration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficult for me to make</td>
<td>.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student friendships</td>
<td>.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Close relationships</td>
<td>.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual growth</td>
<td>.87</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal growth</td>
<td>.85</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Faculty Social Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Few spend time outside class</td>
<td>.70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Few are interested in students</td>
<td>.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most are interested in teaching</td>
<td>.87</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Persistence Intentions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I made the right decision</td>
<td>.53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Important for me to graduate</td>
<td>.70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I will register here next fall</td>
<td>.56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I expect to graduate from here</td>
<td>.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I expect to graduate elsewhere</td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AIS items were "I have performed academically as well as I anticipated I would," "My academic experience has had a positive influence on my intellectual development since enrolling at X University," and "Most students at X have values and attitudes different from my own." Internal consistency for these three items was .08.

SIS items were "It has been difficult for me to meet and make friends with other students," "The student friendships I
have developed at X have been personally satisfying," "Since coming to this university, I have developed close personal relationships with other students," "My interpersonal relationships with other students have had a positive influence on my intellectual growth and interest in ideas," and "My interpersonal relationships with other students have had a positive influence on my personal growth, attitudes and ideas. Internal consistency for these five items was .88.

FSS items were "Few of the faculty members I have had contact with are willing to spend time outside of class to discuss issues of interest and importance to students," "Few of the faculty members I have had contact with are generally outstanding or superior teachers," and "Few of the faculty members I have had contact with are generally interested in students. Internal consistency using coefficient alpha for these three items was .80.

PIS items were "I am confident that I made the right decision in choosing to attend X," "It is important for me to graduate from X and not some other college or university," "It is likely that I will register at X next fall," "I expect to graduate from X," and "I expect to graduate from another 4-year university." Internal consistency for these five items using coefficient alpha was .71.
CHAPTER IV

RESULTS

Simple correlation coefficients between all of the variables in this study were computed in order to observe the overall pattern of interrelationships for all subjects. The variables used were academic integration, social integration, perceived family social support, perceived peer social support, perceived faculty social support, parents level of education, persistence intentions, ethnicity, gender and year in school.

Correlations among the variables are presented in Table 2. Social integration and perceived availability of peer social support were significantly related \((r = .70, p < .00)\). The next strongest correlations were between social integration and perceived availability of family support \((r = .26, p < .00)\), and between perceived peer support and perceived family support \((r = .28, p < .00)\). All other correlations ranged from -.01 to .21. See Table 3 for the means and standard deviations of the social support and integration variables, across the four racial groups.
Table 3
Intercorrelations of Primary Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ac Int</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Soc Int</td>
<td>.03</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fam Support</td>
<td>.05</td>
<td>.26</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Peer Support</td>
<td>.05</td>
<td>.71</td>
<td>.29</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. PEL</td>
<td>-.14</td>
<td>.06</td>
<td>.03</td>
<td>.11</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Pers Intent</td>
<td>.20</td>
<td>.21</td>
<td>.14</td>
<td>.15</td>
<td>-.16</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Ethn</td>
<td>-.05</td>
<td>.07</td>
<td>-.02</td>
<td>.05</td>
<td>-.13</td>
<td>-.06</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Gender</td>
<td>-.08</td>
<td>.06</td>
<td>.01</td>
<td>.11</td>
<td>-.10</td>
<td>-.00</td>
<td>.05</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>9. Year</td>
<td>.12</td>
<td>-.03</td>
<td>.05</td>
<td>-.08</td>
<td>-.02</td>
<td>.04</td>
<td>-.03</td>
<td>-.08</td>
<td>-</td>
</tr>
<tr>
<td>10. Fae Social Support</td>
<td>.06</td>
<td>.11</td>
<td>.03</td>
<td>.06</td>
<td>-.02</td>
<td>.11</td>
<td>-.15</td>
<td>-.03</td>
<td>.04</td>
</tr>
</tbody>
</table>

Note. Ac Int = Academic Integration; Soc Int = Social Integration; Fam = Family; PEL = Parents' Educational Level; Pers Intent = Persistence Intentions; Ethn = Ethnicity; Fae = Faculty.
Table 4  
Means and Standard Deviations for All Four Racial Groups

<table>
<thead>
<tr>
<th>Variables</th>
<th>Caucasian</th>
<th>Afr-Am</th>
<th>Asian-Am</th>
<th>Latino</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Family SS</td>
<td>3.47</td>
<td>.40</td>
<td>3.51</td>
<td>.54</td>
</tr>
<tr>
<td>Peer SS</td>
<td>3.43</td>
<td>.70</td>
<td>3.20</td>
<td>.83</td>
</tr>
<tr>
<td>Pers Int</td>
<td>4.27</td>
<td>.66</td>
<td>4.03</td>
<td>.91</td>
</tr>
<tr>
<td>Acad Int</td>
<td>3.34</td>
<td>.56</td>
<td>3.19</td>
<td>.77</td>
</tr>
<tr>
<td>Social Int</td>
<td>3.61</td>
<td>1.03</td>
<td>3.34</td>
<td>.99</td>
</tr>
<tr>
<td>Faculty SS</td>
<td>3.33</td>
<td>1.22</td>
<td>2.72</td>
<td>1.19</td>
</tr>
</tbody>
</table>

Note. SS = Social Support; Pers Int = Persistence Intentions; Acad Int = Academic Integration; Social Int = Social Integration.
Table 5
Multiple Regression Examination of Effects of Primary Variables on Persistence Intentions

<table>
<thead>
<tr>
<th>Variables</th>
<th>R</th>
<th>R²</th>
<th>F</th>
<th>df</th>
<th>B</th>
<th>t</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents' Educational Level</td>
<td>.35</td>
<td>.12</td>
<td>5.46*</td>
<td>318</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Social Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.158</td>
<td>-2.93*</td>
<td>318</td>
</tr>
<tr>
<td>Family Social Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.055</td>
<td>1.03</td>
<td>318</td>
</tr>
<tr>
<td>Academic Integration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.089</td>
<td>1.60</td>
<td>318</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.073</td>
<td>-1.36</td>
<td>318</td>
</tr>
<tr>
<td>Social Integration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.169</td>
<td>3.14*</td>
<td>318</td>
</tr>
<tr>
<td>Peer Social Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.176</td>
<td>2.34*</td>
<td>318</td>
</tr>
<tr>
<td>Year in School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.010</td>
<td>.129</td>
<td>318</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.011</td>
<td>.214</td>
<td>318</td>
</tr>
</tbody>
</table>

Note. n = 326. * p<.05. ** p<.01.

A 2X4 MANCOVA was performed in order to assess whether differences existed in social integration, as well as peer social support, persistence intentions, and family social support, across gender and ethnicity. The independent variables were gender and ethnicity. See Tables 6 and 7 for the results of this MANCOVA. The dependent variables were
social integration, peer social support, persistence intentions, and family social support. Educational level of parents served as the covariate. No significant differences in social integration were found to exist. Therefore, the first hypothesis was not supported by the results of this MANCOVA.

However, when differences in social integration, peer social support, family social support and persistence intentions served as the dependent variable, significant differences in covariation were found in persistence intentions when variation in educational level of parents was no longer controlled. Regression analysis revealed that as the educational level of parents decreased, persistence intentions appeared to increase $F(1, 316) = 5.92, p < .02$. 
Table 6
**Means and Standard Deviations of Primary Variables for Men and Women**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Men</th>
<th></th>
<th>Women</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Social Integration</td>
<td>3.306</td>
<td>.630</td>
<td>3.409</td>
<td>.628</td>
</tr>
<tr>
<td>Peer Social Support</td>
<td>3.305</td>
<td>.693</td>
<td>3.462</td>
<td>.687</td>
</tr>
<tr>
<td>Persistence Intentions</td>
<td>3.527</td>
<td>.564</td>
<td>3.578</td>
<td>.535</td>
</tr>
<tr>
<td>Family Social Support</td>
<td>3.451</td>
<td>.419</td>
<td>3.488</td>
<td>.419</td>
</tr>
<tr>
<td>Parents' Educational Level</td>
<td>9.188</td>
<td>3.364</td>
<td>8.581</td>
<td>3.387</td>
</tr>
</tbody>
</table>

Table 7
**Means and Standard Deviations for Primary Variables Across Racial Groups**

<table>
<thead>
<tr>
<th>Var</th>
<th>Caucasian</th>
<th>Afr-Amer</th>
<th>Asian-Amer</th>
<th>Latino</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>PSS</td>
<td>3.427</td>
<td>.701</td>
<td>3.204</td>
<td>.838</td>
</tr>
<tr>
<td>FSS</td>
<td>3.468</td>
<td>.399</td>
<td>3.505</td>
<td>.542</td>
</tr>
<tr>
<td>PEL</td>
<td>9.099</td>
<td>3.102</td>
<td>7.656</td>
<td>3.262</td>
</tr>
</tbody>
</table>

Note. Var = Variable; Afr-Amer = African-American; Asian Amer = Asian American; SI = Social Integration; PSS = Peer Social Support; PI = Persistence Intentions; FSS = Family Social Support; PEL = Parents' Educational Level.

A regression equation was performed using social integration, academic integration, perceived family social
support, perceived peer social support, perceived faculty social support, parents' educational level, ethnicity and year in school as the combined predictors for persistence intentions. Performing this regression equation allowed evaluation of the second hypothesis -- the extent that the combined variance of the predictors accounted for the variance in the criterion, which was persistence intentions.

The results of the regression equation were statistically significant $R = .35$ $F(8, 318) = 5.46$, $p < .01$. The above predictors accounted for 12% of the variability in persistence intentions. Therefore, the results of this regression equation indicate that the combined variance of year in school, parents' educational level, perceived faculty social support, perceived family social support, academic integration, ethnicity, social integration and perceived peer social support accounts for very little variance in persistence intentions. Hence, in combination, they are poor predictors of persistence intentions.

Moreover, academic integration, social integration and parents' educational level were the only statistically significant predictors of persistence intentions. While academic integration and social integration were significant positive predictors of persistence intentions, parents' educational level was a significant negative predictor. Therefore, the results of the second stepwise regression did support the second hypothesis. Although academic integration,
social integration and parents' educational level did significantly predict persistence intentions, ethnicity did not. See Table 4 for the results of the second stepwise regression equation.

A 2X4 MANCOVA was performed in order to assess whether differences existed in persistence intentions across gender and ethnicity. Year in school served as the covariate. See Tables 8, 9 and 10 for the results of this MANCOVA. The only significant differences in persistence intentions were found across ethnicity $F(3, 318) = 6.28, p < .01$ and ethnicity by year in school $F(3, 318) = 3.76, p < .01$. Therefore, these results suggest that variability in persistence intentions occurs when differences in year in school are no longer controlled.

Table 8
Means and Standard Deviations for Persistence Intentions and Year In School Across Racial Groups

<table>
<thead>
<tr>
<th>Var</th>
<th>Caucasian</th>
<th>Afr-Amer</th>
<th>Asian-Amer</th>
<th>Latino</th>
</tr>
</thead>
<tbody>
<tr>
<td>YIS</td>
<td>2.505 1.139</td>
<td>2.625 1.120</td>
<td>2.443 1.133</td>
<td>2.372 1.128</td>
</tr>
</tbody>
</table>

Note. Var = Variable; Afr-Amer = African-American; Asian-Amer = Asian-American; PI = Persistence Intentions; YIS = Year In School.
Table 9
Means and Standard Deviations for Persistence Intentions and Year In School for Men Among Women

<table>
<thead>
<tr>
<th>Variable</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Persistence Intentions</td>
<td>3.527</td>
<td>.564</td>
</tr>
<tr>
<td>Year In School</td>
<td>2.563</td>
<td>1.136</td>
</tr>
</tbody>
</table>

Table 10
Summary Table for Persistence Intentions by Race, Gender and Year in School

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>Sig of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year In School</td>
<td>.90</td>
<td>1</td>
<td>.90</td>
<td>1.71</td>
<td>.191</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>9.89</td>
<td>3</td>
<td>3.30</td>
<td>6.28</td>
<td>.000</td>
</tr>
<tr>
<td>Gender</td>
<td>.01</td>
<td>1</td>
<td>.01</td>
<td>.03</td>
<td>.072</td>
</tr>
<tr>
<td>Ethnicity By Year In School</td>
<td>5.93</td>
<td>3</td>
<td>1.98</td>
<td>3.76</td>
<td>.011</td>
</tr>
<tr>
<td>Gender By Year In School</td>
<td>.03</td>
<td>1</td>
<td>.03</td>
<td>.06</td>
<td>.809</td>
</tr>
<tr>
<td>Within + Residual</td>
<td>166.95</td>
<td>318</td>
<td>.52</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Discussion

This study investigated a persistence model composed of ten elements: year in school, parents' educational level, faculty social support, family social support, peer social support, academic integration, social integration, gender, race and persistence intentions. The only large significant correlation obtained was between perceived availability of peer social support and social integration ($r = .70, p = .00$), which is supported by previous research findings (Mallinckrodt, 1988; Martin, 1990; Ostrow et al., 1986; Crosson, 1988).

The first MANCOVA's significant results, which suggested a negative relationship between parents' educational level and persistence intentions, were surprising because they were not consistent with any previous research located for the literature review. Investigations into effects of parents' educational status suggested that children of college graduates often graduate college (Griffin & Alexander, 1978; Sewell & Howser, 1980; Tinto, 1984; Gruca, 1988), or found no basis for a relationship between parents' educational level and offspring's educational status (Kerckhoff & Jackson, 1982; Karabel & McClelland, 1987; McClendon, 1976), which was usually subsumed under the construct of occupational status.
The unexpected relationship between parents' educational level and persistence intentions may be a reflection of students' family backgrounds. For example, given the extensive diversity of the student body, it seems reasonable to assume that many students at the institution of inquiry are either first-generation college students or the first generation to attend college in the United States. Therefore, many of these students' parents, who may lack a strong college background, may realize the enormous opportunity that their children have to "make it in America," starting with attaining a college education. Consequently, parents strongly encourage their children to complete their degree. These parental hopes then become internalized in the children, some of whom participated in this study.

The significant results of the regression equation, in which persistence intentions served as the criterion, are consistent with previous research findings that found academic integration, social integration and parents' educational level to be predictive of persistence. Although dropout among African-Americans and Latinos, when compared to Whites, has been found to be more a reflection of academic difficulties than of social ones (Centric & Thomas, 1970; Shaffer, 1973; Sedlacek & Webster, 1978; Allen et al., 1982; Eddins, 1982; Gosman et al., 1983; Donovan, 1984), the significance of social integration as a predictor may be the result of its compensatory effect in relation to academic integration.
The meaning of the second MANCOVA's significant results, which suggested that year in school (when not controlled) significantly interacts with race to influence persistence intentions, is unclear. Due to the low number of participants found when racial groups were further subdivided into year in school, one cannot reliably infer from this investigation's findings the combination(s) of racial group membership and year in school that were significantly associated with persistence intentions.

At least two limitations in this study must be acknowledged. First, the College Experience Survey is a new research tool designed to assess college adjustment. It requires standardization and replication across settings before its reliability and predictive validity can be established. Currently, the College Experience Survey's external validity is limited to a large urban private university. In addition, its predictive validity is unknown at this time.

Second, a limited sample size may have contributed to the nonsignificance of many findings. For example, there were 14 African-American freshmen that were further subdivided among gender and parents' educational level. There were only four African-American male freshmen, far below the ten usually needed for each condition of an independent variable. Of those 14 African-American freshmen, only 3 were of low parents' educational level.
In closing, knowledge gained from this investigation may be utilized in order to further examine the predictors of persistence intentions and components involved in college persistence. First, the results of this study suggest that a previously unknown negative relationship may exist between parents' educational level and persistence intentions. Research designed to more specifically measure parents' educational level, and perhaps parental attitudes toward their children's college education, may more accurately illustrate why this previously unknown relationship exists. Second, this study's results concerning perceived availability of peer social support suggest that differences in student body racial composition or campus social/political environment may influence minority group members' feelings of being supported emotionally by others. Better matching of samples at different types of institutions may enhance comparability. For example, if the same amount or proportion of Latino students participated across institutions, more generalizable results could possibly occur.

Third, including persistence intentions as the dependent variable in the regression equation yielded very small regression coefficients. Moreover, very little variance in eight predictors accounted for variability in persistence intentions. Therefore, future researchers may wish to utilize a larger multiracial sample than was used in this study, which will perhaps lead to finding more significant predictors.
Also, developing more reliable measures of the constructs used in this investigation may result in instruments that can enable researchers to account for an increased variance in persistence intentions.
REFERENCES


Los Angeles: Graduate School of Education, University of California.


Crosson, P. H. (1988). *Four-year college and university*


Griffin, L., & Alexander, K. (1978). *Schooling and*


meeting for the Association for the Study of Higher Education. Boston.


Panos, R. J., & Astin, A. W. (1968). Attrition among


Thompson, C. E., & Fretz, B. R. (1991). Predicting the adjustment of Black students at predominantly White


The author, David Neil Letwat, was born in Evanston, Illinois. He and his wife, Sheryl, live in Evanston.

In August, 1986, Mr. Letwat entered the University of Illinois at Urbana-Champaign, receiving the degree of Bachelor of Science in Psychology in May, 1990.

In August, 1992, Mr. Letwat entered Loyola University Chicago, and will receive the degree of Master of Arts in Community Counseling in May, 1996.
THESIS APPROVAL SHEET

The Master's Thesis submitted by David Letwat has been read and approved by the following committee:

V. Scott Solberg, Ph.D., Director
Assistant Professor, Counseling Psychology
Loyola University Chicago

Suzette Speight, Ph.D.
Assistant Professor, Counseling Psychology
Loyola University Chicago

Etc.

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

The Master's Thesis is, therefore, accepted in partial fulfillment of the requirements for the degree of Master of Arts in Community Counseling.

2/1/96
Date

[Signature]
Director's Signature