

IMPACT OF FAMILY INFLUENCES ON THE CHOICE OF MAJOR: EXCLUSIVELY
FROM THE PERSPECTIVE OF FIRST-GENERATION COLLEGE STUDENTS

By

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To those who have encouraged me

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TABLE OF CONTENTS

	<u>page</u>
ACKNOWLEDGMENTS	4
LIST OF TABLES	7
LIST OF FIGURES	8
ABSTRACT.....	9
CHAPTER	
1 INTRODUCTION	11
Background.....	11
Purpose of Study.....	13
Hypotheses.....	14
Conceptual Map.....	14
2 REVIEW OF THE LITERATURE	16
Introduction.....	16
First-Generation College Students.....	16
First-Generation College Students and Academics	18
Parental Involvement and Academics	19
Factors/Issues Associated with Choice of Major.....	20
Implications of Parental Expectations and its Influence on Academics for First- Generation College Students.....	21
Theories Supporting this Research	22
Theory of Social Exchange.....	22
Assumptions of Social Exchange Theory.....	23
Identification/Definition of Key Concepts	23
Proposed Linkage of Concepts Relevant to this Research	25
Family Systems Theory	25
Assumptions of Family Systems Theory.....	26
Identification/Definition of Key Concepts	26
Proposed Linkage of Concepts that are Relevant to this Research	28
Linkage between the Social Exchange Theory and Family Systems Theory	28
3 RESEARCH METHODOLOGY	29
Introduction.....	29
Research Questions.....	29
Research Design	29
Sample Selection	30

Operational Definition of Variables	33
Dependent Variable	33
Independent Variables	33
Description of Setting	34
Description of Participants	36
Key Informant Interviews.....	38
Survey Questionnaire	39
Instrumentation	40
Key Informant Interviews.....	41
Survey Questionnaire	42
Data Analysis.....	43
4 RESULTS	45
Introduction.....	45
Descriptive Statistics	45
Dependent Variable	46
Statistical Analyses.....	48
Quantitative Results.....	49
Summary.....	51
5 CONCLUSION AND IMPLICATIONS.....	53
Introduction.....	53
Findings and Discussion	53
Research Questions and Hypotheses	53
Introduction of a New Conceptual Map	59
New Concepts Interpreted	60
Theoretical Implications	60
Theory of Social Exchange	60
Family Systems Theory	61
Limitations.....	62
Implications for Future Study.....	63
Implications for Practice.....	64
APPENDIX	
A KEY INFORMANT INTERVIEW PROTOCOL.....	65
B SURVEY QUESTIONNAIRE	67
LIST OF REFERENCES.....	72
BIOGRAPHICAL SKETCH	76

LIST OF TABLES

<u>Table</u>		<u>page</u>
4-1	Summary of participants' demographic statistics	47
4-2	Summary of statistics of participant's majors.....	48

LIST OF FIGURES

<u>Figure</u>	<u>page</u>
1-1 Original conceptual map.....	14
3-1 Conceptual framework prior to key informant interviews.....	41
3-2 Conceptual framework after key informant interviews	42
4-1 One-way ANOVA output of influence based on academic environment and choice of undergraduate major	50
4-2 Correlations output of [student's] current grade level and choice of undergraduate major	51
5-1 New conceptual map highlighting significant relationships.....	59

Abstract of Thesis Presented to the Graduate School
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By

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The purpose of this research study was to examine the relationship between perceived family influences and the choice of undergraduate major for first-generation college students at a four year public college or university. The research was guided by two theories: the theory of social exchange and family systems theory.

It was hypothesized that there was a significant relationship between first-generation college students' perceived parental influences, perceived social support networks and choice of undergraduate major. It was also hypothesized that there was a significant relationship between certain first-generation college students' demographic characteristics and choice of undergraduate major. Two additional variables were also examined, influence based on person and influence based on academic environment.

Survey questionnaires were administered to 100 first-generation college students. Findings revealed that there was no significant difference between first-generation college students' perceived parental influences, perceived social support networks, and influence based on person and choice of undergraduate major. There was however, a significant difference found between influence based on academic environment and choice of undergraduate major. This finding suggests that the support provided by the student's academic institution is likely to affect their

major selection process. First-generation college students may be relying on their academic institution to help them navigate successfully through college. The student's current grade level also had a significant relationship with their choice of undergraduate major.

Using a larger sample size, future research should examine the specific influences of the academic environment that influence first-generation college student's choice of undergraduate major. Considering the multitude of resources available to students that may help them with choosing a major, it is necessary to decipher the specific factors that are important to students from the ones that are not. This is important in terms of funds allocation and may improve the overall support provided for first-generation college students by their academic institution.

CHAPTER 1 INTRODUCTION

Background

This research examines whether or not a relationship exists between first-generation college students' perceived parental influences and choice of undergraduate major at a four year public college or university. It explores whether students perceive parental influences as being the most beneficial or least damaging feature in terms of influencing their choice of undergraduate academic major. The students of interest are first-generation college students (FGCS). There are several reasons why examining the extent to which perceived parental influences affect the declaration of a major for FGCS. First, the earliest available report compiled by Nunez & Cuccaro-Alamin, (1998) for the National Center for Education Statistics reported percentage distribution in 1989-1990 revealing that 43% of students beginning postsecondary institutions were first generation college students. A more recent study completed in 2005 reported that 57% of first-generation college students enrolled in a college or university between 1992 and 2000 had achieved a bachelor's degree, contrary to their peers whose parents had obtained a college degree. These students had a completion rate of 68%. Nevertheless, the percentage of first-generation college students is growing. They now account for more half of the students who are entering college and completing a degree (Chen, National Center for Educational Statistics [NCES], 2005).

Due to the fact that research indicates that FGCS are different from their non-FGCS peers (Bui, 2002), specific challenges that are likely to affect this particular group of students should be identified and appropriately addressed. One such challenge is the ways in which perceived parental influences impacts FGCS choice of major. In an attempt to ensure that they achieve their fullest academic potential, research measures should be conducted in order to address this matter.

Second, by gaining an understanding of the decision-making process for choosing majors for current FGCS, faculty and administrators can better address the needs of future students, ensuring that improved ways of addressing this group are utilized. A third notable reason for this study is that a student's influence in choice of major can have a significant impact on public policy regarding resource allocation in higher education (Leppel, Williams & Waldauer, 2001). For example, if a particular field is experiencing a shortage of qualified and skilled employees, then it is possible that public funds that support higher education may be invested in particular majors (i.e., recruitment, more qualified professors, and better supplies) that typically generate students for the fields in which qualified employees are lacking. This may in turn attract more students and thus more likely to generate individuals who will be able to fulfill that particular shortage. Being able to address the needs of first-generation college students in terms of major selection may help improve their chances of graduating from college; thus making them likely candidates that may potentially fulfill this need (Leppel, Williams & Waldauer, 2001).

In addition, the majority of first-generation college students are minorities and the university population is becoming more diverse. Being familiar with the influence of the students' educational aspirations may aid administrators in the development of strategies that will allow them to serve these students better (McCarron & Inkelas, 2006). A study conducted by Fallon (1997) suggests that family support for education is the key difference between first and second generation college students. Additionally, the importance of choosing the appropriate major has a major impact on whether or not a student successfully completes their bachelor's degree (Allen & Robbins, 2007). In light of this and other similar findings, coupled with the nearly insurmountable circumstances that first-generation college students must overcome, it is

important to examine the relationship between first-generation college students perceived parental influences and choice of undergraduate major (Leppel, et. al. 2001).

Purpose of Study

This study measures the extent to which parental influences plays a role in choice of undergraduate academic major at a four year public university for first-generation college students. When it comes to decisions regarding majors, the influence of parents often goes unmentioned. More attention is usually focused on guidance counselors and peers. When parents are referenced in the literature, the focus is usually on their influence on whether their child actually attends college or the difficulties in which they are likely to face as a result of being the first in their families to pursue a degree-- rather than how they choose a major. Considering the importance of major choice for students in general, coupled with the importance of family to these students, literature suggests that there is a direct need to understand how parents of first-generation college students influence their child's choice of major. This study looks at the extent to which a relationship exists between parental influences, perceived social support networks, demographic characteristics and the choice of undergraduate major for first-generation college students at the University of Florida during the fall 2008 semester. To achieve these purposes, the three research questions of this study are

1. Does a relationship exist between first-generation college students' perceived parental influences and choice of undergraduate major?
2. Does a relationship exist between first-generation college students' perceived social support networks influences and choice of undergraduate major?
3. Is there a significant relationship between first-generation college students' demographic characteristics and choice of undergraduate major?

Hypotheses

- **H1_A:** There is a significant difference between first-generation college students' perceived parental influences and choice of undergraduate major.
- **H2_B:** There is a significant difference between first-generation college students' perceived social support network influences and choice of undergraduate major.
- **H3_C:** There is a significant relationship between first-generation college students' demographic characteristics and choice of undergraduate major.
- **H3_{C1}:** There is a significant difference between race/ethnicity and choice of undergraduate major.
- **H3_{C2}:** There is a significant difference between gender and choice of undergraduate major.
- **H3_{C3}:** There is a significant difference between first-generation college student's parents' socioeconomic status and major.

Conceptual Map

The following conceptual map serves as a diagrammatic conceptualization of the research questions that were proposed in this study. It illustrates how each of the following concept, parental influences, social networks and demographics, can work both individually and/or together to influence the choice of major for undergraduate students.

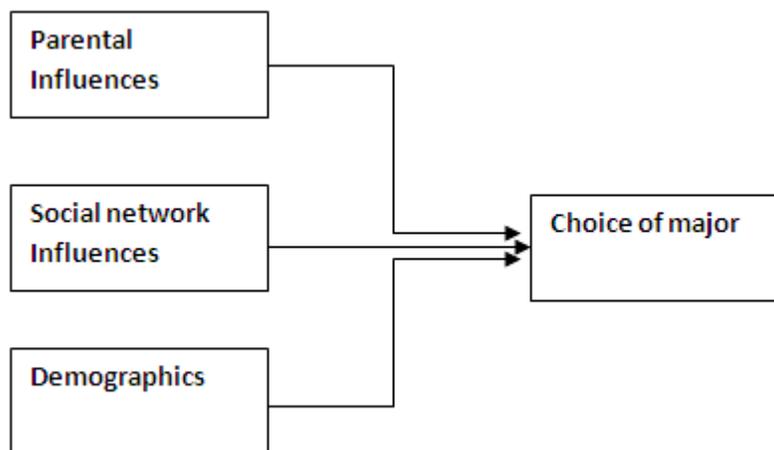


Figure 1-1. Original conceptual map

In the above figure, the FGC student's perceived parental influences, social network influences and demographic characteristics are individual concepts that influence their choice of undergraduate major. Parental influences refer to the first-generation college student's perception of their parent or parents' ability to influence the major they choose. The proposed relationship is between the student's perceived parental influences and choice of major. Social network influences refer to the FGC students' perception of their peers' ability to influence the major they choose. Similar to parental influences, the proposed relationship is between the student's perceived social network influences and choice of major. There is also a proposed relationship between certain demographics characteristics (racial or ethnic background, gender and primary care-taker's current income) and choice of major.

CHAPTER 2 REVIEW OF THE LITERATURE

Introduction

This chapter presents an overview of relevant literature pertaining to specific topics that serve as the driving force of this research. A variety of topics are covered, each topic plays a quintessential role in the development of the research questions. The areas are as follows: first-generation college students, first-generation college students and academics, parental involvement and academics, and factors/issues associated with choice of major. This chapter also includes an ‘implications section, as well as an explanation of the theories that support this research.

First-Generation College Students

The term ‘first-generation college students’ has been defined in a plethora of ways (Pike & Kuh, 2005). In this study, college students whose parents have not attended a post secondary educational institution, namely college or university, are considered first generation college students (Hartig & Steigerwald, 2007). Current research identifies certain characteristics that are common among these particular students. These characteristics serve as identifying factors for first-generation college students. For example, first-generation college students are more likely to be ethnic minorities, from lower socioeconomic statuses, and live in a household where English is not the primary language (Bui, 2002). They also tend to be older students, as in non-traditional college students working full-time jobs. The highest minority group of FGCS is Hispanic females. Hispanic females constitute 41% of the FGCS population (Nunez & Cuccaro-Alamin, National Center for Educational Statistics [NCES], 1998). This high rate of first-generation Hispanic college students is possibly due to the fact that Hispanics are the largest ethnic minority group according to the 2006 U.S. Census Bureau. Unfortunately, of minority

FGCS, they also seem to participate more frequently in remedial courses upon entering college (Horwedel, 2008).

Even after being admitted to a university, first-generation college students find it rather difficult to remain enrolled in school. While in attendance, they take fewer credit hours than non-FGCS and are less likely to persist towards the completion of their degree. Most of these students do not live on campus and many do not participate in on campus activities irrelevant to the context of academia (Pascarella, Pierson, Wolniak, & Terenzini, 2004). Regrettably, in all aspects of postsecondary achievement, FGCS are less likely than their counterparts to succeed (Choy, 2001). Their likelihood of persisting through all four years at a university diminishes each year. They are more likely than non-FGCS not to return for a second year. At the three year mark, 67% of them are likely least likely to return compared to 52% for non-FGCS (Pascarella, Pierson, Wolniak, & Terenzini, 2004).

Similar statistics were found in terms of pursuing a graduate degree for first-generation college students and non-first-generation college students. Approximately 25% of FGCS go on to graduate school compared to 34% of non-FGCS. Despite these findings however, the reality of the labor market does not prove as grim for these students. As they enter the job market following college, Nunez & Cuccaro-Alamin (1998) found that in relation to occupational earnings, the salary for FGCS and non-FGCS were similar.

Due to an inadequate preparation for college, FGCS tend to lack a sense of mastery of the college student role. They fail to grasp a complete understanding of what is expected of them. Non-FGCS rely on their parents to bridge the gap of their own perception and the reality of the university's expectations (Collier & Morgan, 2004). Undoubtedly, not being able to bridge this

gap of knowledge is disadvantageous for these students. It is no wonder that so many choose to forfeit any desire to attend a postsecondary institution (Olenchak & Hebert, 2002).

First-Generation College Students and Academics

Due to the fact that their parents are unable to relay a college experience, FGC students must adjust to the new academic and social culture of college life on their own (Inkelas, Daver, Vogt, & Leonard, 2007). They tend to have lower self-reported standardized test scores in comparison to their peers whose parents had at least some college experience (Bui, 2002). On college entrance exams such as the ACT/SAT, on average, they have lower scores than their counterparts; have taken a less strenuous course load in high school, and more remedial classes (Choy, 2001). This possibly contributes to their likelihood of also having lower high school grade point averages (Ishitani, 2003). Once in college, choosing a major has also proved somewhat problematic for FGCS. According to Chen (2005), upon entering college, only 13% of non-FGCS had not identified an undergraduate major, compared to 33% of FGCS. They seem to gravitate less towards science-related majors, mathematics and engineering, and more towards areas that are vocational and technical related.

FGCS tend to experience college culture shock (McCarron & Inkelas, 2006), have less parental support with the logistics of college preparation and career planning, in addition to experiencing cultural and values conflict due to the differences between their home and college communities (Hartig & Steigerwald, 2007). Quite often, they must reject values instilled within them by their parents and conform to the attitudes and behaviors associated with the work world they one day hope to enter (Fallon, 1997).

They are least likely to have participated in high school academic programs that assist with the preparation of college. More often than their peers whose parents are college educated, they do not aspire to obtain a college degree (Hahs-Vaughn, 2004). Upon entering college, the risk of

attrition in the first year is 71% higher for first-generation college students than that of students with two college-educated parents (Ishitani, 2003). Along with academic challenges, they tend to face emotional challenges as well. This includes having lower self-esteem and self-efficacy (Hahs-Vaughn, 2004). Not surprisingly, first-generation college students are less likely to persist toward the completion of their college degree. Therefore, a disproportionately low number of these students succeed (Pike & Kuh, 2005).

Parental Involvement and Academics

While some research literature suggests that parental involvement is an effectual force when it comes to the academic achievement of children (Trusty, 1998); other research indicates otherwise. Urdan, Solek & Schoenfelder (2007) report that the evidence in this matter is inconclusive due to secondary findings that report evidence showing little direct parental influence on students' educational aspirations, as well as findings that suggest that parental involvement has little if nothing to do with students' academic endeavors or future career choice. Nonetheless, other studies have revealed that parental influences has an impact on students' transition to young adulthood (Fuligni & Pedersen, 2002), students' decision-making processes regarding work and family commitment (Friedman & Weissbrod, 2005), and to students' selection of a college major (Legutko, 2007).

Current research reveals that there are in fact, differences in parental influences on academics depending on the demographic characteristics of the student and his or her family background. For one, countries with a collectivist ideology, such as Asian and Latin American cultures tend to place more emphasis on academic motivation than does the European American culture. This is possibly reflected in the fact that Asian Americans attain higher grade point averages in high school than their European American peers (Tseng, 2004). Leppel, Williams & Waldauer (2001) showed that parental socioeconomic status as well as parents' occupation

influences students' academic aspirations. Females who were reared in a household with high socioeconomic status were less likely to major in business, while males reared in a high socioeconomic household were more likely to choose a business type major. However, in both households, students' who were raised in households where their fathers held professional or executive occupations were likely to choose a major in engineering and the sciences.

Factors/Issues Associated with Choice of Major

Choosing a college major is by far one of the most important decisions a student will make upon entering college (Allen & Robbins, 2007). The most common majors chosen by first-generation college students is business (14%), followed by the health science/services field (8%) and social sciences (7%) (Chen, National Center for Educational Statistics [NCES], 2005)

Nonetheless, students must choose a major at some point during their college career or be faced with the possibility of expulsion (Montmarquette, Cannings & Mahseredjian, 2002). A student's perceived expectations about college influences their selection of academic majors as they tend to choose majors that are compatible with their own abilities, interests, and personalities (Pike, 2006). Evidence shows that the likelihood of choosing more than one major is increasing, whether due to an increase and/or variability in selection, the possibility of additional credentials or the expectation of an increase in earnings, some students are seeking multiple degrees rather than one (Del Rossi & Hersch, 2008). Students tend to choose majors that they feel are a representation of who they believe they are as a person, one that is a reflection of essential core characteristics and fundamental values (Galotti, 1999). Among other things, students tend to take into consideration the competitive nature of the labor fields of their respective degree programs. For some, it is imperative that their investment in a college education will offer security in gaining potential employment (Robst, 2006). Whether or a not a student persists in a particular major is likely to depend on the fit between their personality type

and the surrounding academic environment. If the two correlates well together, the student tends to remain committed to that major for the duration of their college experience (Allen & Robbins, 2008).

The decision making process that each individual goes through when deciding on a major can be approached in multiple ways. Some people choose to remain as objective as possible by deciphering through facts and making logical analyses, others take on a more intuitive or spontaneous approach, while some turn to other people (i.e. parents, guidance counselors, or friends) to make a decision for them (Galotti, Ciner, Altenbaumer, Geerts, Rupp & Woulfe, 2006). Because not committing to a major in a timely manner lends itself to other more serious and potentially costly effects such as wasting money on unnecessary college credits as well as time that could have been spent in core major classes, it is likely that the sooner one selects a major, the closer they will come to realizing their goal of graduation (Legutko, 2007).

Implications of Parental Expectations and its Influence on Academics for First-Generation College Students

Previous studies on first generation college students have focused on the likelihood that (1) they attend college (McCarron & Inkelas, 2006, Bui, 2002), (2) they successfully obtain a college degree (Ishitani, 2003, Ishitani, 2006, Bui, 2002), and (3), parental involvement influences on academic success (Dennis, Phinney & Chuateco, 2005, McCarron & Inkelas, 2006). Previous research presents a rather unique perspective of first-generation college students. However, there has been little research found indicating parental influence on the choice of the first major subsequent to enrollment in college for this group of students. Much of the literature involving this topic suggests that parental involvement is an effectual force when it comes to the academic achievement of children (Trusty, 1998). Therefore, students' perception of the rewards and costs of parental expectations on major declaration can extend beyond the initial purposes of

this study. It can further provide some insight into the students' academic aspirations in addition to providing useful information regarding how this population can exceed their potential and possibly receive the full benefit of the college academic experience, despite the challenges they face due to their circumstances.

Theories Supporting this Research

This study applies the assumptions and concepts of two theories. Each theory is different in that they apply to different aspects of the study; however, a clear understanding of the two theories will allow for a more distinct understanding of the overall study itself.

Theory of Social Exchange

The theory of social exchange is an extension of the philosophical principle, utilitarianism (Chibucos, Leite & Weis, 2005). It is based on the premise that human behaviors are motivated solely by self-interests. Its central focus is on the individual and what propels them to perform certain actions. The relationships one chooses to pursue/maintain, academic endeavors, or career choices are all based on the perception that one's actions will achieve the greatest rewards possible while maintaining the lowest expenditure, and as a result maximizing that individuals' benefits. The endurance and existence of social groups such as families is explained by the individual members' self-interest (White & Klein, 2002). However, understanding a person's behavior in social exchanges leads to an understanding of that person's comparison level, or the threshold at which an outcome seems attractive to a person (Chibucos, Leite & Weis, 2005). This theory is commonly used in social sciences, and is said to be applicable to any social context (Bodenmann, Charvoz, Bradbury, Bertoni, Iafrate, Giuliani, Banse & Behling, 2006).

Assumptions of Social Exchange Theory

Assumption number 1: The individual is a real entity. Society encompasses several social arrangements (group phenomenon, social structure, normative culture, etc.) which consist of individuals. Therefore, to understand these macro-social phenomena, one must understand the actions of individuals.

Assumption number 2: Understanding of the individual's motivation reflects the prediction and understanding of that particular individual. It is generally accepted that a person's choice is limited by constraints, whether physical or social. Nonetheless, an individual's choice can largely be understood on the basis of the actor's motivation rather than external forces or constraints.

Assumption number 3: Individuals are motivated and driven by self-interests. Even at the most subconscious of levels, individuals seek things and relationships they regard as advantageous for themselves.

Assumption number 4: Behaviors are rational. Rational actors confronted with identical values and presented with both identical information and situations will calculate the ratio of costs and rewards in exactly the same way, consequently arriving at the same decision (White & Klein, 2002).

Identification/Definition of Key Concepts

Concept number 1: Reward. Rewards are exchanges between individuals in a personal relationship that is perceived as beneficial (Chibucos, Leite & Weis, 2005). They may be concrete or symbolic, such as tangible items like money or gifts, or intangible items such as emotional support or personal satisfaction.

Concept number 2: Costs. Costs are quite the opposite of rewards, in that they are unfavorable dimensions of an exchange. They can conceivably be considered missed

opportunities for rewards. The three types of costs include investment (time and effort), opportunity (rewards forgone as a results of exchange), and direct (resources given another in an exchange).

Concept number 3: Profit or maximizing utility. Profit/utility results in the calculation of the ratio for all possible rewards and least costs. Meaning, all possible risks are outweighed by the reward.

Concept number 4: Comparison level and comparison level for all alternatives. Comparison level is a comparison how well the individual is doing relative to others in their position. Comparison level of all alternatives is a comparison of how well the individual is doing comparable to others outside of their situation but in positions that supply an alternative choice. For example, a person in a marriage contemplating divorce compares the stability of their marriage to other married couples' in addition to considering the stability of other important relationships, such as work and religious affiliation.

Concept number 5: Rationality. The value of what an actor considers a reward changes frequently; for example, the value of something may decrease the more you receive of it. In order to understand an individual's rationale, one must be aware of the relative weights or salience for each reward or cost.

Concept number 6: Exchanges and equity. Because relationships seldom have equal exchanges, actors often choose to incur some losses in order to maintain the profitability of the relationship.

Concept number 7: Generalizable sources of rewards. General sources of costs and rewards allows us to compute a general accounting of saliencies, of costs, and rewards, and to

establish a general choice that would be most profitable for actors in a social system (White & Klein, 2002).

Proposed Linkage of Concepts Relevant to this Research

The perceived rewards and cost that result in social exchanges influence the maintenance or leads to the dissolution of that relationship. An exchange creates and reinforces social ties of obligation, trust and solidarity between exchange partners in a social relationship (Ribar & Wilhelm, 2006).

Social exchanges are exchanges between two or more people; each person holding the perception that the exchange in question will result in the most benefits for themselves, while sacrificing the least, thus maximizing that individual's profits (White & Klein, 2002).

Family Systems Theory

Just as there are specific pieces that make up a puzzle, there are certain elements that contribute to the 'whole' of the family. By far, this basic idea is the most identifiable feature of the family systems theory. From this perspective, the family is viewed as a collaborative network of persons whom work together to make up the sum total of the entire family. The theory is concerned with the entire family unit as a whole, rather than its individual members. Persons within the system are interrelated. The behavior of one individual member is far from being independent of the family unit; ultimately, all members are affected.

A family system is comparable to an assembly line in a machine factory. Each part, no matter how small or presumably trivial is necessary in order to ensure that the entire system functions in a way that produces a set of outputs. Within the family system are sub-systems. Sub-systems are primarily dyadic relationships; for example, father and mother, parent and child, and grandparent and grandchildren. There is also a hierarchy within the family unit that demonstrates

a chain of command. Nevertheless, like ecosystems, families grow over time; they are constantly going through changes and striving to maintain stability (White & Klein, 2002).

Assumptions of Family Systems Theory

Assumption number 1: The system consists of inter-related/interconnected parts. This further explains the interrelatedness of the family unit. It recognizes that the parts of the family, being its individual members, are important to the overall balance of the entire system. The behavior of one individual within the system influences the other parts of the system. This does not imply a causal relationship, only that the family unit is influenced largely by the behaviors of its members.

Assumption number 2: Viewing the whole, leads to a better understanding of the interconnecting parts. Although the system is made up of individuals, issues, conflicts, and any other matters concerning the family can only be understood by examining the family as a whole.

Assumption number 3: The behavior of the system affects the external environment, while the behavior of the external environment *affects the system*. The system continually interacts with the outside environment. In the interaction process, the output of the system is returned as input. This feedback is incorporated into the system, and changes within it take place accordingly.

Assumption number 4: “Systems” are not real things. Systems theory serves as a guiding principle for learning and discovering the world which encompasses the family (White & Klein, 2002).

Identification/Definition of Key Concepts

Concept number 1: Systems. A system is defined as an individual unit that is distinctively different from and that impacts the environment. The family system for example, acts as a unit in and of its self that is situated within the larger, all-encompassing environment. The system may

be further divided into sub-systems; information within the system is exchanged between other systems and the environment as well.

Concept number 2: Sub-systems. These are usually formed as dyadic relations. Sub-systems are the internal parts that make up the system. In a family system for example, there are parent-child sub-systems, grandparent-grandchild sub-systems, and so-on. An occupational system has the subsystem employer-employee.

Concept number 3: Boundaries. The system has boundaries that range in permeability. They may be permeable, meaning information is passed freely between the system and the outside environment or semi-permeable, meaning that although information may be passed freely between the system and its external environment, there may be some restrictions. There are also impermeable boundaries. These boundaries prevent information from passing back and forth between the environment and the system. The level of permeability is a function of the system.

Concept number 4: Rules of Transformation. Rules of transformation are the rules that guide the actions and behaviors of the actors within the system. For example, the sub-system within a particular family may be ‘husband and wife.’ A rule of transformation for this dyad may be established such that when a husband is repeatedly late coming home from work, the wife will stop preparing dinner. These rules are established within the system and may not be shared within other systems.

Concept number 5: Feedback. Feedback is the continuous ‘feed’ of information between the system and other systems as well as the external environment.

Concept number 6: Equilibrium. Equilibrium refers to a balance between what goes into the system and what goes out of it. A balance of inputs and outputs is usually a reflection of a balance within the system as well (White and Klein, 2002).

Proposed Linkage of Concepts that are Relevant to this Research

The overall family system incorporates smaller sub-systems such as the relationship between the parent and the child. First-generation college students and their parents share a relationship that is unlike the relationship that their peers whose parents are college educated share (Bui, 2002). Among other things, this relationship further influences the first-generation college students' academic endeavors.

The rules of transformation varies within families, as is does within the dyadic relationship of a first-generation college student and their parents. The expectation for their child to have accomplished something that they themselves were unable to accomplish provides for certain rules that are shared within the system that may or may not be shared in other systems.

Linkage between the Social Exchange Theory and Family Systems Theory

First-generation college students are social beings, whom given a choice, are likely to choose the option that provides them with the most benefits at the least cost to them. Considering the close relationship that these students have with their families, as has been discussed in previous literature, it is likely that upon entering college and having to make a decision as important as choosing a major, that a relationship exists between first-generation college students' perceived parental influences and choice of undergraduate major.

CHAPTER 3 RESEARCH METHODOLOGY

Introduction

The purpose of this research study was to examine the relationship between perceived family influences and the choice of undergraduate major for first-generation college students. This chapter includes the research design, definition of relevant variables, description of setting, sampling procedures and participants, instrumentation, data collection procedures and analysis. A chapter summary is also provided at the end of this chapter.

Research Questions

The three research questions included in this research were as follows:

1. Does a relationship exist between first-generation college students' perceived parental influences and choice of undergraduate major?
2. Does a relationship exist between first-generation college students' perceived social support networks influences and choice of undergraduate major?
3. Is there a significant relationship between first-generation college students' demographic characteristics and choice of undergraduate major?

Research Design

There were two primary stages involved in the research design process, informant interviews and participant questionnaires. The first stage included key informant interviews with the purpose, according to Bryman (2004) of establishing a rapport with key individuals who are likely to offer some insight as to the everyday experiences of the subjects of interest, in this case first-generation college students. This provides support as well as enhances the quality of the survey questionnaire that was also developed for the purposes of this research.

Using a cross-sectional design, the second stage of the research included the survey questionnaire. The survey questionnaire was used to collect data of two or more variables from two cases or more in an attempt to examine the variation in each variable and uncover a pattern

of association (Bryman, 2004). The survey questionnaire was used instead of the structured interview format, as suggested by Bryman (2004), due to the following advantages:

- (a) It is convenient for respondents
- (b) The efficiency of administering
- (c) Absence of interviewer effects

Survey questionnaires are more convenient for respondents than structured interviews because they do not rely on the interviewer asking questions in multiple ways and multiple orders. Respondents save time because a possible range of responses from which to choose have been pre-determined for them. In addition, the ranges of responses remain fairly consistent, which also gives participants the opportunity to focus on the statements rather than trying to come up with a response.

Survey questionnaires are also easier to administer than structured interviews. The questions included in survey questionnaires unlike structured interviews are pre-constructed and do not change throughout the course of being administered. This makes administration quicker and allows for more flexibility in distribution. Survey questionnaires can be delivered through the post, over the internet, face to face, as well as over the telephone.

There is an absence of interviewer effects when administering a survey questionnaire. As Bryman (2004) suggests, there is little to no interviewer influence affecting respondents. In a structured interview, interviewer characteristics such as age, race, sex and perceived socioeconomic status can influence how the respondent responds. In the case of survey questionnaires, interviewers have the ability to leave the room or attend to something else while the respondent fills out the questionnaire.

Sample Selection

For purposes related to non-discriminatory practices, the University of Florida does not require that students identify whether or not they are a first-generation college student when

applying for admission. Therefore, the University does not have a record of its first-generation college student population.

Nevertheless, the University of Florida is unique in certain respects because of the Florida Opportunity Scholar program. As the university's average parental income continued to rise (average parental income, \$100,000), a concern for academically qualified students from low socioeconomic households became a forefront issue. In an attempt to maintain and promote the university's diverse student population, the university president initiated the conception of a program that would assist first-generation college students from low socioeconomic backgrounds. This program is formerly known as the Florida Opportunity Scholars program.

Upon being accepted to the University of Florida, students are given the opportunity to apply for this scholarship program if they identify as a first-generation college student. The program provides support for first-generation college students from families making less than \$40,000 by assisting with the costs of school, and providing them with the tools necessary to ensure their academic success. Students in the program are supported each year with a full-grant and scholarship package; total cost is estimated at \$3.67 million. The first class of students began in summer 2006. At that time there were 293 females and 151 males. The average family income for these students was \$24,600 (University of Florida's Foundation website).

The theoretical population for this research study was all first-generation college students currently in their undergraduate program at a four year college or university in the United States. The Florida Opportunity Scholars program does not account for the number of first-generation college students enrolled at the University of Florida. However, based on the number of students that are currently participating in the program, the sampling frame included those 771 participants. Students who participate in this program self-identify as first-generation college

students and apply following admission to the university. The sample size is based on variance, alpha level, and precision level. Confidence level was set at 95% (z=1.96), precision level at 0.2 (d=0.2) and the variance at 2 (s=2). Below is the following formula that was used to calculate sample size; where n= sample size, z= value from the table of z values based on desired confidence level, s= standard deviation and p= precision level:

$$n = \frac{z^2 s^2}{d^2}$$

The sample size yielded was 384. The sampling frame based on the current number of Florida Opportunity Scholars program participants was 771. The adjusted sample size was calculated using the following formula where n= adjusted sample size, n₀= sample size that was previously calculated, and N= population size.

$$n = \frac{n_0}{1 + \frac{n_0 - 1}{N}}$$

The adjusted sample size was 256 which based on the total number of students currently enrolled in the Florida Opportunity Scholars program. It is to be duly noted that the adjusted sample of 256 is likely to be an underrepresentation of the theoretical population of first-generation college students at the University of Florida.

Because first-generation college students are not markedly identified, key informant interviewees were asked to speculate where they thought these students would be clustered. It was overwhelmingly suggested that these students are likely to gravitate toward the larger colleges that offer a variety of majors and classes that are specifically for first-generation college students. The colleges that were referred were the College of Liberal Arts and Sciences and the

College of Agricultural and Life Sciences. The Florida Opportunity Scholars (FOS) program supports a class for first-generation college students only. Unlike students participating in the (FOS) program, students from the College of Liberal Arts and Sciences and the College of Agricultural and Life Sciences may or may not have met the stipulations (parental income of \$40, 000 or less, etc.) of the program as these students did not participate in the study in the FOS class. One-hundred of the 256 target numbers of participants were included in the study.

Operational Definition of Variables

This study had one dependent variable which is choice of major for first-generation college students. The independent variables were parental influences, peer influences, and relevant demographic characteristics.

Dependent Variable

The major that a student chooses as their primary concentration in a specific academic area is their choice of major. It is reflected on their official school transcript and students are required to take certain courses in order to fulfill their major requirements in order to graduate. This is self-reported on the survey questionnaire.

Independent Variables

The construct of ‘perceived family influences’ refers to the first-generation college students’ perception of their parent or parents’ ability to affect what major they choose. The construct ‘perceived social network influences’ refer to first-generation college students’ perception of their friends’ ability to affect what major they choose. Both constructs are measured by five-level scales (“strongly disagree,” “disagree,” “neither disagree or agree,” “agree,” or “strongly agree”).

There were two constructs that were not addressed in the research questions, as they were later added as a result of some of the information that was gathered from the key informant

interviews. The first is based on the notion that the student's personal experiences can affect how they may choose their major. The construct that reflects this is 'influence based on personal experiences'. The second construct is 'influence of academic environment'. When asked about factors that they felt affected the choice of major for first-generation college students, key informants often mentioned that the resources provided to them by their academic institution in terms of helping them choose a major had a big impact on their ultimate choice.

The construct of demographics included gender, age, grade level, racial or ethnic background; primary household type while growing up, primary care-taker's current employment status, whether a parent or parents' were born in the United States, and primary care-taker's current income. Gender and grade level were measured on a nominal scale (gender= male or female, grade level= freshman, sophomore, junior, or senior) and age was self reported by asking students to provide the year in which they were born. Racial and ethnic background were also measured on a nominal scale [racial or ethnic background= Black or African American, Caucasian (non-Hispanic), Hispanic or Latino, Native American or Alaskan native, Native Hawaiian or Pacific Islander, Asian, or Other]. Other nominally measured items included primary household type while growing up (single parent household, two-parent household, or other), primary care-taker's current employment status (employed by a company/business/government, self-employed, laid off, but looking for work, or other, please specify); whether a parent or parents' were born in the United States (yes or no) and household primary care-taker's current income [low (> 25,000), medium (25,000 to 50, 000), and high < 50,000)].

Description of Setting

This research study was conducted at a large public university located in the southeastern United States. It is a publically funded, land-grant research institution and enrolls over 50,000

students annually. Approximately 30,000 of those students are undergraduates. The university houses 16 colleges, over 100 majors and more than 150 research facilities.

Students attending the University of Florida are instinctively different from students attending similar universities, even those that are similar in size and population. As it states on the university's registrar website, the university utilizes a university-wide tracking system that ensures that students maintain eligibility to graduate from the time they enter as freshmen to the time they graduate. According to information provided by the Office of Institutional Planning and Research in the Measuring University Performance Series (MUPS) website, students who enter under the university's normative processes are required to select a major upon registration. After which, an eight-semester outline with recommended courses is devised for students which tracks their progress for optimal degree completion in four years. Students must maintain a tracking criterion that includes a certain grade point average and the completion of critical courses or their records are flagged. A flag puts a hold on students' access to their records and prevents them from registering for courses or viewing their transcripts and other important information. They must see an advisor who then explains to them that they are not keeping up with the university's tracking system and will advise them on how to return to eligibility.

In terms of admission, transfer students are treated somewhat differently than the native student who begins their undergraduate degree as a freshman. The University of Florida accepts only students who have completed at least 60 credits at an accredited institution. It is the student's responsibility to contact their prospective department and figure out if their credits are transferable. Once they have been accepted these students enter the university-wide tracking system as well.

As the university does not require that students self-identify as first-generation college students, there were no public records indicating how many first-generation college students were enrolled at the time of this research study. However, as recently as summer 2006, the university launched an initiative (known as Florida Opportunity Scholars program) to meet the unique needs and challenges of first-generation college students. The program provides support for first-generation college students from families making less than \$40,000 by assisting them financially, and providing them with the tools necessary to ensure their academic success. The current enrollment in the program is 771. Students were not identified by grade level (University of Florida's foundation website).

Description of Participants

The University of Florida has a very distinctive student population and does not reflect the general trends of first-generation college students in the literature or within this study. For instance, the university's 2005 freshman class had an average grade point average of 4.06 and an average SAT score of 1306 (University of Florida registrar website) while the National Center for Education Statistics (2005) reported that the average GPA for first-generation college students was 2.6. More than half of the students (55%) participating in the study also reported taking remedial courses in college to make up for inadequate preparation during high school.

The University of Florida's population also does not resemble the general trends of first-generation college students in terms of socioeconomic status. The median University of Florida family income was \$100,000 as reported by the University of Florida's foundation website. The literature paints a more modest picture of first-generation college student's family income. These students are usually from low income families (Gibbons & Shoffner, 2004). In relationship to race and gender, the University of Florida is comprised of mostly White males [University of Florida's office of institutional planning and research in the measuring university performance

series (MUPS) website], while first-generation college students are mostly Hispanic females (Bui, 2002).

In this study, GPA was not reported. The majority of participants (42%) reported a family income level of less than 25, 000. There were a total of 100 participants, 80 women and 20 men. Forty-five were black, 37 were white and 18 were Hispanic or Latino.

Parents of the majority of students at the University of Florida (UF) are instinctively different in terms of the relationship they have with their child than the relationship of the typical first-generation college student and their parent as was described in chapter two of this study. For one, the average income of UF parents is \$100,000 (University of Florida's Foundation website), compared to first-generation college students parental income, which usually falls in the low-socioeconomic income bracket (Gibbons & Shoffner, 2004). These parents are sometimes referred to as "helicopter parents" because of their tendency to "hover" over their children (Somers, 2007). According to university experts, approximately 40-60% of the parents they deal with are helicopter parents (Farrell, 2007). These parents are said to be overly involved in every aspect of their child's lives, whether social, domestic or academics.

Somers (2007) refers to three possible reasons for this phenomenon. For one, advancements in technology make it easier for parents to remain in constant communication with their children. This communication is maintained by cell phones, instant messaging and emails. Second, parents are choosing to be more involved because they fear for their child's safety, especially being at a university far from home. This is possibly a backlash resulting from increased violence in schools such as the Columbine school shootings. Thirdly, these parents are rejecting their own parents' uninvolved, less-attentive parenting styles. Consequently, helicopter

parents usually make many important decisions for their child in terms of academics, career planning and finances (Jaschik, 2007).

The majority of students that are now entering college are also different from students of past generations (Coomes & DeBard, 2004). The first wave of millennials, as they're often referred to as, was born in 1985 (Coomes, 2004). These students are characteristically a more diverse (Asian Americans students increased threefold) group of students. Of those entering college, only 69.38% of them are White, down from 81.53%. There are also more women entering college (an increase of almost five percent). Presumably, millennials are more ambitious than the generations before them. 75% of them desire to earn upper level degrees. These students are characterized as being more confident, team-oriented, and committed (DeBard, 2004).

Key Informant Interviews

Key informants were solicited due to their professional relationship with first-generation college students and their ability to offer perceptive information regarding their experiences and the events that are of particular importance to that particular population.

Open-ended questions such as “How often do you interact with first-generation college students and what is the basis of that interaction?” and “Based on your experiences with first-generation college students, what are the major issues [regarding the logistics of college] for first-generation college students?” After the first key informant interviewee was identified, a “snow-ball” sampling procedure was implemented. The informant was asked to identify at least two persons who they would recommend that had a relationship similar to first-generation college students. Those persons were then contacted, and interviewed. Of the approximately sixteen additional names provided, ten interviews were conducted.

Survey Questionnaire

Undergraduate students enrolled at the same four year college/university in the southeastern part of the United States during the Fall semester of 2008 were the target population for this study. Survey questionnaires were hand delivered to a total of 100 undergraduate first-generation college students from two of the larger colleges at the university, and a class that enrolls only first-generation college students. The colleges were College of Liberal Arts and Sciences (CLAS) and College of Agricultural and Life Sciences (CAL S). CLAS is the university's largest college and is responsible for providing approximately 35,000 students with the university's core curriculum each year. It is home to 12,000 students pursuing any one of 42 majors and 42 minors. The College of Agricultural and Life Sciences offers 24 majors and more than 50 specializations and is home to UF/IFAS (a local, state, and federal partnership that is invested in developing knowledge in agriculture, human and natural resources, and life sciences.

Since the university does not require that students self-identify as first-generation college students, there is no accurate way to determine a sample size. Therefore, targeting the larger colleges likely increases the chances of obtaining first-generation college students for this study. Additionally, The Florida Opportunity Scholars program also provides classes for its students; surveys will be administered to several of their classes as well.

For each college, several different classes were contacted for survey administration. From the College of Liberal Arts and Sciences, 50 students were recruited. From the College of Agricultural and Life Sciences, 27 students recruited and from the Florida Opportunity Scholars program classes 23 students were recruited. Of the total 100 surveys administered, all 100 were completed and returned. The response rate was 100%, which according to Bryman (2004) is the best possible response rate for survey questionnaires.

The study included a total of 100 participants. 23 (23%) classified as freshman, 8 (8%) as sophomores, 40 (40%) as juniors, and 29 (29%) as seniors. There were four times as many females as males represented. 80 (80%) were females and 20 (20%) were males. Participants' ages fell into one of three categories (ages 18-20, 21- 24, and over 25). There were 46 (46%) students whose ages were from 18-20, 50 (50%) from ages 21 to 24 and 4 (4%) whose ages represent the 25 and over category. Racial and ethnic background was divided as such: 45 (45%) identified as Black or African American, 37 (37%) as Caucasian (non-Hispanic) and 18 (18%) as Hispanic or Latino.

In regards to the type of household in which the student grew up in, 39 (39%) came from a single parent household, 55 (55%) came from a two-parent household, while only 6 (6%) reported being from 'Other' household. Students also reported their primary care-taker's current employment status. 73 or 73% were employed by a company/business/government, 6 or 6% were self-employed, 16 or 16% were laid off, but looking for work, and 5 or 5% reported other. 56 (56%) participants reported that at least one parent was born in the United States, while 44 or 44% migrated from elsewhere. The primary care-taker's current household income was also reported. 42 or 42% reported an income level of falling in the low category (> 25,000), 39 or 39% in the medium category (25,000 to 50, 000), and 19 or 19% in the high category (< 50,000).

Instrumentation

The Institutional Review Board (IRB) protocol included a brief description of the purpose of the study, the purpose of the key informant interviews as well as the survey questionnaires. It also included confidentiality and voluntary policies as required by IRB. The primary instrument that was used in this research was a researcher-developed survey questionnaire. The development of the survey questionnaire is based on the findings of previous literature as well as

the information that was surmised from key informant interviews. The instrument was piloted with first-generation college students and reformatted as a direct result.

Key Informant Interviews

A list of twenty questions [Appendix A] which was submitted to and approved by IRB was emailed to the interviewee prior to the actual meeting. Interviewees were asked to take a look at the questions in advance, so as to ensure that they were indeed able to provide the most adequate information regarding first-generation college students. A total of ten persons were interviewed. Each person reported having daily contact with first-generation college students, many helping them to successfully navigate through the collegiate process. Involvement with these students ranged from advising to instructing. Interviews were tape recorded to ensure accuracy and later summarized in a Microsoft Word document and emailed to interviewees to review and correct if needed. Of the ten that were emailed, only one was returned where a minor correction was made and then sent back to the interviewee for final confirmation.

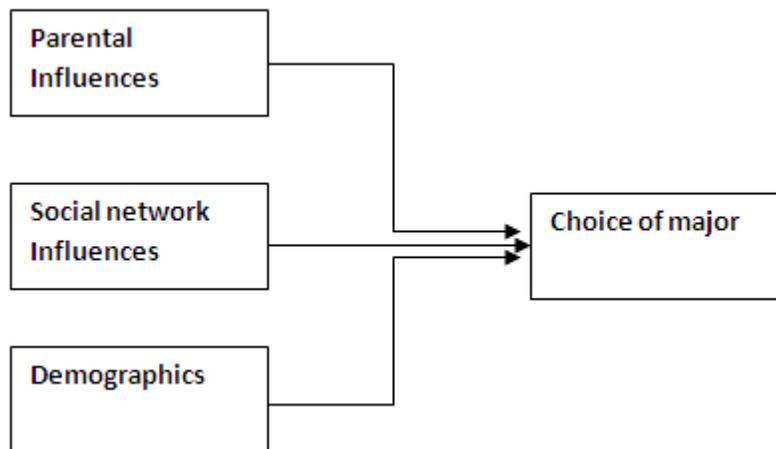


Figure 3-1. Conceptual framework prior to key informant interviews

Based on the information obtained from the key informants, a new conceptual map was constructed. Its finalized framework includes 'Influence based person' and 'Influence of

academic environment’. Almost unanimously, these concepts were agreed upon by the informants as likely to influence how first-generation college students choose their majors. A new conceptual framework was developed to encompass these new concepts. The research questions however, remained the same.

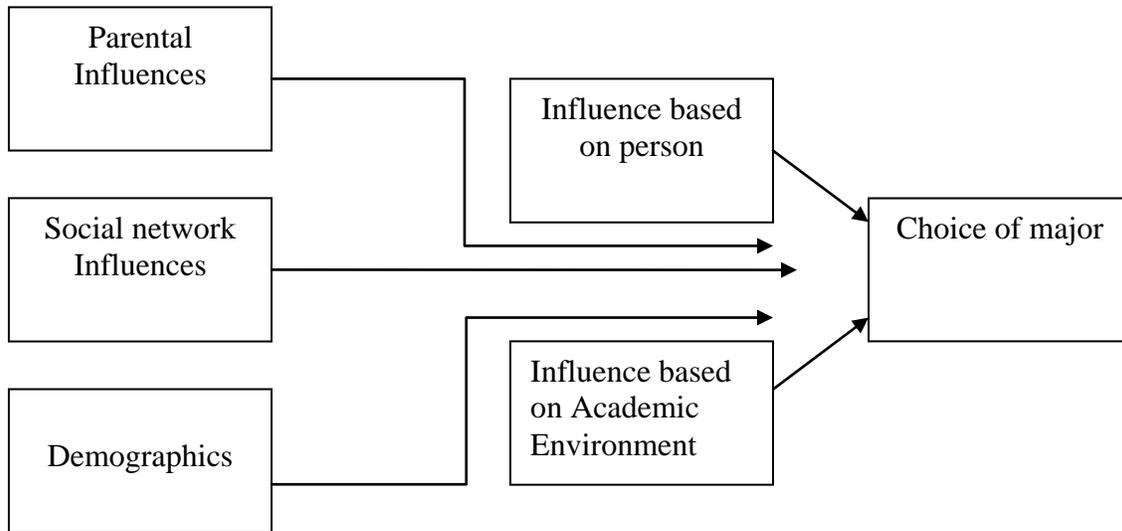


Figure 3-2. Conceptual framework after key informant interviews

Survey Questionnaire

The survey questionnaire was hand delivered to students in five classes from the College of Liberal Arts and Sciences, three classes from the College of Agricultural and Life sciences and one Florida Opportunity Scholars Program class (class that is specifically for first-generation college students). There were a total of five pages, the first being a cover page with instructions on who could complete the survey as well as who could complete it. Statements began on page 2 [Appendix B] and there were a total of 40 statements divided into four headings. The four headings were: ‘Please respond to the following statements about choosing a major’, ‘please respond to the following statements regarding your parent(s) influence and your choice of

major’, Please respond to the following statements regarding your friends influence and your choice of major’ and ‘Please respond to the following statements regarding your school’s influence and your choice of major’. There were 10 questions per heading respectively. The survey questionnaire included nominal and ordinal scales. Following the statements, students were asked to list their current major. Information pertaining to demographic characteristics such as gender, year of birth, current grade level, race/ethnicity, the type of household in which they spent most of their time growing up (single, two-parent, or other), parent’s employment status, whether or not one or both parents were born in the United States and their parents income level were asked at the end of the survey questionnaire.

Pilot Test

The survey questionnaire was pilot-tested with ten first-generation college students. The purpose of the pilot test was to determine how comfortable students will be with completing the survey and to gauge how long it would actually take. Upon administering a pilot test, minor changes in wording on two statements were made and it was determined that the survey would take 10-12 minutes to complete.

Data Analysis

Using the Statistical Package for the Social Sciences (SPSS) program, a correlation bivariate procedure was performed in order to ensure that all items on the questionnaire were coded in the same general direction. This procedure also serves to improve the reliability of the measure (Bryman, 2004). Next, because each item on the questionnaire corresponded to a particular variable, a composite mean score was found for each variable grouping. One-Way ANOVA procedures were used to examine the relationship between the student’s perceived parental influences, social network influences and choice of undergraduate major. Correlation bivariate procedures were performed on demographic characteristics and choice of

undergraduate major. In each case, the dependent variable was ‘choice of undergraduate major’ and the independent variables were ‘student’s perceived parental influences’ and ‘social network influences.’ The demographic characteristics were ‘race/ethnicity,’ ‘gender’, and ‘parent’s socioeconomic status (household income).’ Additionally, the two new independent variables— influence based on person and influence of academic environment-- as a result of the key informant interviews, were also examined using the One-Way ANOVA procedure. Correlation bivariate procedures were performed on additional demographic characteristics.

CHAPTER 4 RESULTS

Introduction

This study investigates the factors that are associated with perceived parental influences, perceived social support, demographic characteristics and the choice of major for first generation students at the University of Florida. It also explores two additional factors that were not a part of the initial research initiatives, but were later added because its potential significance was later revealed as the study went on. Those additional factors were ‘influence based on person’ and ‘influence of academic environment’. This chapter presents the quantitative data analyses of these associations. A survey questionnaire was administered to 100 undergraduate students at the University of Florida. Descriptive analyses are reported, followed by analyses of the five conceptual variables (parental influences, social network influences, demographic characteristics, influence based on person, and influence of academic background). Analyses were reported by the software program Statistical package for the Social Sciences or SPSS.

The results of this study were guided by the following three research questions:

1. Does a relationship exist between first-generation college students’ perceived parental influences and choice of undergraduate major?
2. Does a relationship exist between first-generation college students’ perceived social support networks influences and choice of undergraduate major?
3. Is there a significant relationship between first-generation college students’ demographic characteristics and choice of undergraduate major?

Descriptive Statistics

The following demographic statistics include participant’s current grade level, gender, age range, racial and ethnic background, household type, primary care-taker’s current employment status, whether at least one parent was born in the United States, in addition to their primary care-taker’s current income (Table 4-1). Twenty three (23%) students were classified as

freshman, 8 (8%) as sophomores, 40 (40%) as juniors and 29 (29%) as seniors. There were four times as many females as males represented. 80 (80%) were females and 20 (20%) were males. Participants' ages fell into one of three categories (ages 18-20, 21- 24, and over 25). There were 46 (46%) students whose ages were from 18-20, 50 (50%) from ages 21 to 24 and 4 (4%) whose ages represent the 25 and over category. Racial and ethnic background was divided as such: 45 (45%) identified as Black or African American, 37 (37%) as Caucasian (non-Hispanic) and 18 (18%) as Hispanic or Latino. In regards to the type of household in which the student grew up in, 39 (39%) came from a single parent household, 55 (55%) came from a two-parent household, while only 6 (6%) reported being from 'Other' household. Students also reported their primary care-taker's current employment status. 73 or 73% were employed by a company/business/government, 6 or 6% were self-employed, 16 or 16% were laid off, but looking for work, and 5 or 5% reported other. 56 (56%) participants reported that at least one parent was born in the United States, while 44 or 44% migrated from elsewhere. The primary care-taker's current household income was also reported. 42 or 42% reported an income level of falling in the low category (> 25,000), 39 or 39% in the medium category (25,000 to 50, 000), and 19 or 19% in the high category (< 50,000).

Dependent Variable

The dependent variable that was measured was of choice of undergraduate major. Participants were asked to list their current major on the survey questionnaire. Using the University of Florida's major categories list, majors were then grouped into seven major categories. The major categories were social sciences, fine arts, natural and physical sciences, humanities, business, engineering and other. Descriptive analyses are reported for the dependent variable.

Table 4-1. Summary of participants' demographic statistics

	Number of respondents	Proportion of respondents (%)
Grade level		
Freshman	23	23.0
Sophomore	8	8.0
Junior	40	40.0
Senior	29	29.0
Gender		
Male	20	20.0
Female	80	80.0
Age		
18-20	46	46.0
21-24	50	50.0
25 and over	4	4.0
Race		
Black	45	45.0
White	37	37.0
Hispanic	18	18.0
Household Type		
Single parent household	39	39.0
Two-parent household	55	55.0
Other	6	6.0
Caretaker's Employment status		
Employed by a company/business/government	73	73.0
Self-employed	5	5.0
Laid off, but looking	16	16.0
Other	5	5.0
Parents Place of Birth		
U.S., Yes	56	56.0
U.S., No	44	44.0
Primary Caretaker's Income		
Low (> 25,000)	42	42.0
Medium (25,000 to 50, 000)	39	32.0
High (< 50,000)	19	19.0

Table 4-2. Summary of statistics of participant's majors

Major Category	Number of participants (n)	Proportion of participants (%)
Social Sciences	63	63.0
Fine Arts	3	3.0
Natural and Physical Sciences	8	8.0
Humanities	7	7.0
Business	8	8.0
Engineering	5	5.0
Other	6	6.0

Statistical Analyses

The data was analyzed using the Statistical Package for the Social Sciences (SPSS) program. Once all the data had been transported to SPSS, a bivariate correlation procedure was performed in order to ensure that all items on the questionnaire were coded in the same general direction and confirmed that the grouped questions were corresponding to some latent variable. For instance on item number eight of the questionnaire, the correlation bivariate revealed a negative significance for the statement ‘The career I will most likely go into *has little to do with* my current major.’ This was measured as, 1) Strongly Disagree, 2) Disagree, 3) Neither Disagree or Agree, 4) Agree, and 5) Strongly Agree. In order for the statement to reflect a positive direction, such as ‘The career I will most likely go into *has a lot to do with* my current major’ the measurement was re-coded as 1) Strongly Agree, 2) Agree, 3) Neither Disagree or Agree, 4) Disagree, and 5) Strongly Disagree.

Each item on the questionnaire corresponded to a particular latent variable. A composite mean score was found for each variable grouping. The groupings were titled ‘Self’, ‘Parent’, ‘Peers’ and ‘School’.

One-Way ANOVA procedures were used to examine the relationship between the student’s perceived parental influences, social network influences and choice of undergraduate major. A bivariate correlation was then performed on the demographic characteristics and choice

of undergraduate major. Additionally, the two new independent variables— influence based on person and influence of academic environment-- as a result of the key informant interviews were also examined, again using the One-Way ANOVA procedure, with choice of major as the dependent variable. A bivariate correlation was also performed on the additional demographics.

Quantitative Results

Research Question 1 asked: “Does a relationship exist between first-generation college students’ perceived parental influences and choice of undergraduate major? A One-Way ANOVA was performed to investigate whether or not this relationship existed. The output was not significant at .396. Parental Influences and choice of undergraduate major were not strongly associated.

Research Question 2 asked: “Does a relationship exist between first-generation college students’ perceived social support networks influences and choice of undergraduate major? A One- Way ANOVA was performed to investigate whether or not this relationship existed. The output was not significant at .191. Social networks and choice of undergraduate major were not strongly associated.

Research Question 3 asked: “Is there a significant relationship between first-generation college students’ demographic characteristics and choice of undergraduate major? A chi squared test of correlations was performed to investigate whether or not this relationship existed.

Hypothesis 3_{C1}: There is a significant difference race/ethnicity and choice of undergraduate major. The output was not significant at .918. Race/ethnicity and choice of undergraduate major were not strongly associated.

Hypothesis 3_{C2}: There is a significant difference between gender and choice of undergraduate major. The output was not significant at .643. Gender and choice of undergraduate major were not strongly associated.

Hypothesis 3_{C3}: There is a significant difference between first-generation college students' parents' socioeconomic status and major. The output was not significant at .311.

For the additional variable, 'influence based on person' or 'self' a One- Way ANOVA procedure was performed. The output was not significant at .707. The ANOVA output determined that participant's personal influences and choice of undergraduate major were not associated.

For the variable 'Influence based on academic environment' a One- Way ANOVA procedure was performed. The output was significant at .042 (Figure 4-1). The ANOVA output determined that there was a relationship between 'Influence based on academic environment' and choice of undergraduate major.

Analysis of variance for choice of major by school (academic environment)

School	SS	df	MS	Sig
Between groups	370.790	6	61.798	.042*
Within Groups	2514.647	93	27.039	
Total	2885.436	99		

Figure 4-1. One-way ANOVA output of influence based on academic environment and choice of undergraduate major

A bivariate correlation was also performed on the demographic characteristics student's current grade level and choice of undergraduate major. Student's current grade level was highly significant at .000.

Finally, a multivariate analysis (MANOVA) procedure was performed. The purpose of this analysis was to take into account the overall effects of the variables of interest (self, parental involvement, peers and academic environment) on choice of major (Glass & Hopkins, 1996).

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	47.023 ^a	18	.000
N of Valid Cases	100		

Figure 4-2. Correlations output of [student's] current grade level and choice of undergraduate major

The following output includes the four different types of MANOVA's that are performed within the SPSS program. Of the four listed, the there was significance found with the Roy's Largest Root procedure. Therefore, when examining the relationship of all the independent variables in this study on choice of major, there was significance found with at least one of the variables.

Summary

In this chapter, the following three research questions were examined: (1) Does a relationship exist between first-generation college students' perceived parental influences and choice of undergraduate major? (2) Does a relationship exist between first-generation college students' perceived social support networks influences and choice of undergraduate major? And (3) is there a significant relationship between first-generation college students' demographic characteristics and choice of undergraduate major? Primary data was collected using survey questionnaires and was analyzed by the software program SPSS. Research Questions 1 and 2 were analyzed by One-Way ANOVAs. The added independent variables (influence based on person and influence of academic environment) were also analyzed by One Way ANOVAs. A chi squared test was used to determine if there were correlations between the demographic characteristics of a student and choice of major. A multivariate analysis was performed in order to account for the overall effects of the variables of interest (self, parental involvement, peers and

academic environment) on choice of major. Interpretations and implications of these research results are presented in Chapter 5.

CHAPTER 5 CONCLUSION AND IMPLICATIONS

Introduction

Chapter five of this research includes the conclusion and implications of the study. The chapter addresses the findings based on the research questions and hypotheses, introduction of new conceptual map, theoretical implications, study limitations, recommendations for future research, and implications for practice.

Findings and Discussion

This study examines if a relationship exists between perceived parental influences, perceived social support networks, demographic characteristics and the choice of undergraduate major for first-generation college students at the University of Florida during the fall 2008 semester. The study was conducted at a university located in the southeastern United States. It is a publically funded, land-grant research institution and enrolls over 50,000 students annually. Approximately 30,000 of those students are undergraduates. Primary data was collected using survey questionnaires and was analyzed by the software program SPSS. Research Questions 1 and 2 were analyzed by One-Way ANOVAs. The additional independent variables (influence based on person and influence of academic environment) were also analyzed by One Way ANOVAs. Correlation bivariate procedures were used to analyze demographic characteristics. Lastly, a multivariate analysis (MANOVA) procedure was performed in order to account the overall effects of the variables of interest (self, parental involvement, peers and academic environment) on choice of major (Glass & Hopkins, 1996).

Research Questions and Hypotheses

Research Question One: Does a relationship exist between first-generation college students' perceived parental influences and choice of undergraduate major? Results of the One-

Way ANOVA reported that there was no association between the perceived parental influences of first-generation college students and choice of undergraduate major. This finding does not support the hypothesis that there was a significant difference between first-generation college students' perceived parental influences and choice of undergraduate major. Although some research literature suggests that parental involvement is an effectual force when it comes to the academic achievement of children (Trusty, 1998), findings suggest that the fact that their parents did not go to college has little to no bearing on first-generation college student's choice of undergraduate major. The findings of this study are more aligned with Urdan, Solek & Schoenfelder (2007) who reported that there was inconclusive data linking parental influence and students' educational aspirations. Horn, Laura, Nunez, Anne-Marie & Bobbitt, Larry (2000) reported that parents of FGCS are often less concerned about issues related to applying to college as well as with other collegiate matters.

One possible explanation for this research's finding is that first-generation college students have taken into consideration that because their parents do not have a college education they therefore can offer little influence in terms of the major they will choose once they themselves are in college.

Research Question Two: Does a relationship exist between first-generation college students' perceived social support network influences and choice of undergraduate major? Results from the One-Way ANOVA reported that there was no association between perceived social support network influences and choice of undergraduate major for first-generation college students. This finding does not support the hypothesis that there was a significant difference between first-generation college students' perceived social support network influences and choice of undergraduate major. Unlike the findings purported by Dennis, Phinney, & Chuateco

(2005), these findings suggest that first-generation college students do not turn to their peers when it comes to seeking outside help to choose a major. It is possible that their peers are similar to them in respect to majors and may know just as much or as little as they do about the majors that are available to them. Therefore, it would not be sensible to seek their assistance with this issue.

Research Question Three: Is there a significant relationship between first-generation college students' demographic characteristics and choice of undergraduate major? The first demographic characteristic that was examined was race/ethnicity. Results from the correlation bivariate procedure revealed that there was no association between race/ethnicity and choice of undergraduate major for first-generation college students. This finding does not support the hypothesis that there was a significant difference between race/ethnicity and choice of undergraduate major. Contrary to Simpson's (2001) results, this study found that race/ethnicity has little to no bearing on choice of undergraduate major for first-generation college students. It is possible that these students are so similar in other ways, i.e. being the first in their family to attend college, that race/ethnicity has little significance overall.

The second demographic characteristic that was examined was gender. Results from the correlation bivariate procedure revealed that there was no association between gender and choice of undergraduate major for first-generation college students. Chen's (2005) research also found no association between first-generation college students and the completion of a bachelor's degree. The hypothesis was not supported. Similarly to race/ethnicity and choice of undergraduate major, findings suggests that gender has little to no bearing on the choice of undergraduate major for first-generation college students. Again, it is possible that other factors such as being the first in their family to attend college outweighs gender differences.

The third demographic characteristic that was examined was first-generation college student's parents' socioeconomic status and choice of undergraduate major. A relationship between first-generation college student's choice of major and parents' socioeconomic status was expected, as was found in a study performed by Leppel, Williams & Waldauer (2001). These researchers found that females who were reared in a household with high socioeconomic status were less likely to major in business, while males reared in a high socioeconomic household were more likely to choose a business type major. Nevertheless, results from the correlation bivariate procedure revealed that there was no association between first-generation college student's parents' socioeconomic status and choice of undergraduate choice of major.

The finding of this study does not support the hypothesis that there was a significant difference between first-generation college student's parents' socioeconomic status and choice of undergraduate major. Yet still, pressures to have a meaningful income sometimes affect the time that these students have to dedicate to academic work (Engle, Bermeo & O'Brien, 2006). Considering that almost half the participants in this study (42%) reported belonging to the low income level category, it is likely that the lack of significance is due to an overrepresentation of this category. However, as Bui (2002) suggests, first-generation college students are likely to come from lower socioeconomic statuses.

The first of the two additional concepts that were examined was 'influence based on person.' This concept refers to the personal characteristics of the first-generation college student that is likely to influence their choice of undergraduate major. That is, the person chose their major without outside help. Results of the One-Way ANOVA reported that there was no association between influence based on person and choice of first-generation college student's undergraduate major. There was no significant between influence based on person and choice of

first-generation college student's undergraduate major. This finding suggests that first-generation college students, even though they do not seek outside assistance from their parents or their peers in terms of choosing a major, they do not rely entirely on themselves. This finding suggests that there may be some other factor that has not yet been considered that assists first-generation college students with their choice of undergraduate major.

The second of the two additional concepts that were examined was 'influence based on academic environment.' This concept refers to the support received by the first-generation college students for choosing an undergraduate major from at their academic institution. This support is likely to come in the form of online tools used to research majors, support from Career Resource Center ambassadors who help students research their major options, or programs that specifically support first-generation college students, i.e. Scholarships for first-generation college students or classes specifically for first-generation college students that help them get acclimated to the collegiate environment. Results from a One-Way ANOVA reported that there was an association between influences of the academic environment and choice of undergraduate major for first-generation college students. There was a significant difference between influences of the academic environment and choice of undergraduate major for first-generation college students. Prospero (2008) also had similar findings. According to his study, "... academic integration had the highest positive contribution to academic achievement..." for this population than any other variable examined.

This finding suggests that even though first-generation college students are not looking to their parents, peers, or relying completely on themselves when it comes to deciding on a major, they are in fact seeking outside assistance. This support is being provided to them by their academic institution. Considering that the inclusion of this concept was suggested by the key

informants, all of whom have or have had some relationship with first-generation college students; it is likely that they are beginning to see a trend that has not yet been highlighted in the literature. Perhaps this speaks to the number of colleges that are beginning to implement programs and or scholarships that attract first-generation college students. It is likely that they are realizing that first-generation college students are in fact different from their peers and a collegiate environment cultivated to suit their academic needs is being established.

The first additional demographic characteristic that was examined was current grade level and choice of undergraduate major. Results from a correlation bivariate procedure revealed that there was an association between first-generation college student's current grade level and choice of undergraduate major. There was a significant difference between first-generation college student's current grade level and choice of undergraduate major. This finding suggests that different grade levels influence student's choice of undergraduate major. It is likely that students at the freshman grade level are unsure of what major to choose or more so are unaware of the different types of majors that are available to them. The higher students get in grade level, the more fine-tuned their choice of major becomes.

The second additional demographic characteristic that was examined was whether or not student's parents were born in the United States. First-generation college students are more likely to be ethnic minorities (Bui, 2000) and the highest minority group is Hispanic females. Hispanic females constitute 41% of the first-generation college student's population (Nunez & Cuccaro-Alamin, National Center for Educational Statistics [NCES], 1998).

Results from a correlation bivariate procedure revealed that there was an association between first-generation college student's parent's birthplace and choice of undergraduate major. There was not a significant difference between first-generation college student's parent's

birthplace and choice of undergraduate major. This finding suggests that where their parents were born is not likely to influence first-generation college student's choice of undergraduate major. It does not support the previous literature that first-generation college students are likely to come from an ethnic background nor does it suggest that perhaps first-generation college students whose parents were born outside of the United States are more likely to encourage that their children attend college than students whose parents were born in the United States.

Introduction of a New Conceptual Map

The first conceptual map that was introduced in this research proposed that parental influences, social network influences and demographic characteristics had an influence on choice of undergraduate major for first-generation college students. However, after the key informant interviews were completed, two additional variables—*influence based on person* and *influence based on academic environment* were suggested and included on the second conceptual map. As a result of the findings, I propose a new conceptual map that takes into account the significant relationships for first-generation college students and choice of undergraduate major.

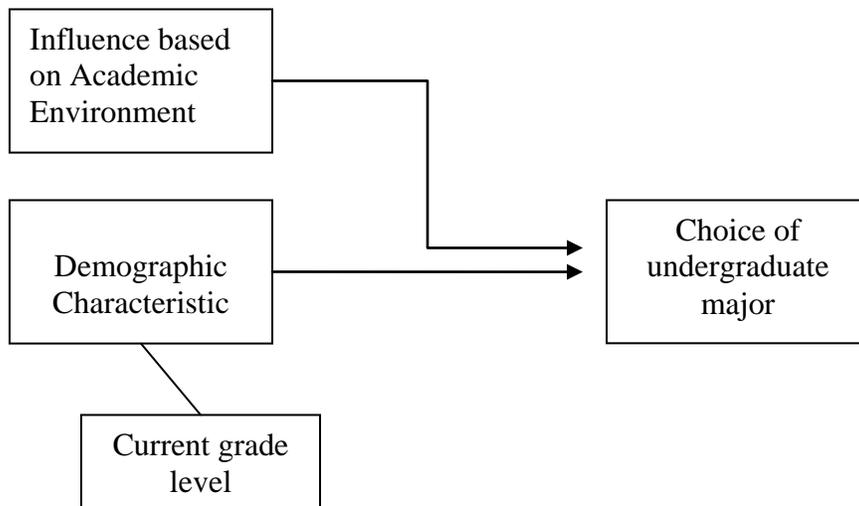


Figure 5-1. New conceptual map highlighting significant relationships

New Concepts Interpreted

Influence of Academic Environment. This concept refers to the support received by the first-generation college students for choosing an undergraduate major from at their academic institution. This support is likely to come in the form of online tools used to research majors, support from Career Resource Center ambassadors who help students research their major options, or programs that specifically support first-generation college students, i.e. Scholarships for first-generation college students or classes specifically for first-generation college students that help them get acclimated to the collegiate environment.

Current Grade Level. First-generation college student's grade level is likely to influence the student's choice of undergraduate major. Students at the University of Florida must choose a major, according to information provided by the registrar's website. Therefore, this association is somewhat expected. It is also possible that students at the freshman grade level are unsure of what major to choose or more so are unaware of the different types of majors that are available to them the further they get into their academic career.

Theoretical Implications

Theory of Social Exchange

[Social] Exchanges create and strengthen social bonds of obligation, trust and solidarity between exchange [partners] (Ribar & Wilhelm, 2006). The results of this research suggest that there is no association between first-generation college students' perceived parental influence and choice of undergraduate major. Therefore, in consideration of the theory of social exchange, it is suggested that since there is no "obligation, trust and solidarity" between the exchange partners-- the student and the parent-- a dissolution of the relationship is likely to take place. In other words, the strength of the relationship between the parent and the child is likely to dissolve

due to the lack of involvement the parent has in terms of influencing their child's undergraduate major.

On the contrast, an association was found between first-generation college students' choice of undergraduate major and the influence of their academic environment. This finding suggests that the relationship between the student and their academic environment is beginning to strengthen and perhaps is fulfilling the need of the student that is no longer being fulfilled by their parent(s). The institution has become a place where the student is perhaps forming social bonds of obligation, trust, and solidarity, a feat that was once accomplished, at least in part, by their parents.

Family Systems Theory

According to Bui (2002), first-generation college students and their parents share a relationship that is unlike the relationship that their peers whose parents are college educated share. This suggests that there is likely to be an association between first-generation college students and their parents on important matters such as those pertaining to academics. However, results suggest that there is no association between first-generation college students' perceived parental influences and choice of undergraduate major. There is a relationship nonetheless between first-generation college students' choice of undergraduate major and the influence of the academic environment. This finding suggests that perhaps the academic environment fills in as a pseudo parent for the child. There are certain rules that are shared within the [academic environment] system that may or may not be shared within other [family, i.e., parent-child dyadic] systems. In other words, the academic environment (for the time being) has become more relevant to the first-generation college student than their place in the family system.

Limitations

There are several limitations that must be taken into consideration for this study. First, the sample size that was obtained is likely not a representation of the theoretical population. As was previously mentioned, the University of Florida does not require that students identify whether or not they are a first-generation college student when applying for admission. Therefore, the University does not have a record of its first-generation college student population. The only program that keeps a record of first-generation college students at the University of Florida is the Florida Opportunity Scholars program. Although an adjusted sample size was calculated, it is likely not representative of the first-generation college student's theoretical population.

Another limitation lies in the fact that 23 of the 100 participants of this study came from the Florida Opportunity's Scholars program class. It is necessary to consider these students different from first-generation college students who are not participating in the program. There are specific requirements that must be met, besides being the first in your family to attend college, in order for these students to be a part of the program. Such requirements include: being a resident of the state of Florida, be enrolled for at least twelve credit hours and maintain satisfactory academic progress, and have demonstrated a need as determined from aid application that parents' total annual income is less than \$40,000. No such stipulations are applied to other participants in this study.

This research may only be generalizable to university's comparable to the University of Florida with programs similar to the Florida Opportunity Scholars program. The University of Florida is located in the southeastern part of the United States. It is a publically funded, land-grant research institution and enrolls over 50,000 students annually. Approximately 30,000 of those students are undergraduates. As a result, this study may not be generalizable to other academic institutions a part from the University of Florida.

Implications for Future Study

As the research results have indicated, there is an association between influence of academic environment and first-generation college student's choice of undergraduate major. Future research should explore this further by examining these specific influences. Considering the multitude of resources available to students that may help them with choosing a major, it is necessary to decipher the specific factors that are important to students from the ones that are not. This is important in terms of funds allocation and may improve the overall support provided for first-generation college students by their academic institution.

A majority of the key informants that were interviewed suggested that even though parents may have some influence in their first-generation college student's choice of undergraduate major, it is likely that they serve more as an emotional support. In order to be successful at a postsecondary institution, it is necessary that first-generation college students are supported. It is essential that the families of these students work together with their schools to support their academic endeavors (Reid & Moore, III, 2008). Perhaps then it is worth exploring whether there is an emotional support provided by parents when making decisions that pertain to academics such as deciding what major one should pursue.

Key informants in this study can be considered experts on issues pertaining to first-generation college students. A majority of them suggested that the students' own influence over their choice of undergraduate major be explored. Although this variable was not found to have any associations with first-generation college student's choice of undergraduate major, it is worth exploring further, perhaps with a more representative sample size, to see if there are indeed associations.

Implications for Practice

The findings of this research suggest that universities should be taking into consideration the fact that many of their first-generation college students may be relying on their academic institution to help them navigate successfully through college. These students need to view their coursework as meaningful in an effort to persist towards completion. If attending classes is seen as more than simply just a means to an end, it becomes easier for them to fully integrate into the collegiate system (Prospero, 2007). It will be necessary then, that the university is equipped with the resources necessary to assist these students.

The association with academic environment and undergraduate major found in this study is likely a reflection of the participants from the Florida Opportunity Scholars (FOS) program. This program is not the first of its kind and has been adapted from similar programs found at the University of North Carolina-Chapel Hill (Carolina Covenant), the University of Virginia (Access UVA) and, the University of Michigan (MPact). Stakeholders with an invested interest in first-generation college students should consider the estimated cost of \$3.67 million necessary to operate the program. The average aid per student is \$6,000 per academic year. Nevertheless, the FOS program boasts a scholarship renewal rate of 89.2% and a retention rate of 96.1% (University of Florida's Foundation website).

As Bui (2002) mentioned, first-generation college students are different from their non-first-generation college student peers. It is possible that these differences may be so significant that they hinder or delay in some way, the ability for the first-generation college student to complete their undergraduate degree. Academic institutions should take this seriously and make attempts to identify the ways in which they can better serve this population.

APPENDIX A
KEY INFORMANT INTERVIEW PROTOCOL

Key Informant Interview

Name: _____

Position: _____

Contact Information: _____

1. How often do you interact with first-generation college students and what is the basis of that interaction?

Based on your experience with first-generation college students...

2. How important is major choice for these students?

3. What are the differences between first-generation college students and non-first-generation college students?

4. What are the major issues [**regarding the logistics of college**] for first-generation college students?

5. What are the major issues [**regarding choosing a major**] for first-generation college students?

6. Who do first-generation college students usually turn to for assistance with issues regarding college?

6a. What is your perception of this person's knowledge and understanding of the collegiate process?

7. What are some of the things that would make the transition from high school to college easier for these students?

8. How involved are their parents [usually] in helping them transition from high school to college?

9. How involved are their parents [usually] in helping them choose a major?

10. What are some of the things that a college/university could do in order to make the experience of first-generation college students a more productive one?

11. Are you a first-generation college student?

If yes, continue with the following questions. If no, go to question #20.

12. Can you describe any [collegiate] experience that you feel made you different from non-first-generation college students?

13. Was your choice of major influenced by anyone in particular, if yes, who and how so?

14. Were your parents in agreement with you and your choice of major? Please explain.

15. How has the fact that your parent's did not attend college influenced your decision to attend college?

16. What factors contributed to your particular choice of major?

17. How has your friends/peers influenced your choice of college major?

18. Are there any other factors that may have contributed to your choice of major? How so?

19. Is there anything else you'd like to add that I have not yet asked you regarding your experiences with first-generation college students?

20. Is there someone you'd recommend that I interview who may have significant ties to first-generation college students?

APPENDIX B
SURVEY QUESTIONNAIRE

Instructions: Hello, my name is Mellissa Gordon and I am a graduate student in the department of Family, Youth and Community Sciences. I am conducting research on the impact of family influences on the choice of major for first-generation college students.

In order to complete this survey, you must be a first-generation college student. This means that you are the first in your immediate family to have attended a college or university and neither parent nor sibling has done so whether in the United States or elsewhere.

The survey includes a series of statements. Please choose the one that best reflects your feelings, beliefs and/or opinions.

Unless a blank space has been provided to write (as in the last two question/statements on page 4), please use a number 2 pencil to fill in your responses on the scantron that has been provided for you.

If you have any questions, please see the person administering this survey.

Please respond to the following statements about choosing a major

	(A) Strongly Disagree	(B) Disagree	(C) Neither Disagree or Agree	(D) Agree	(E) Strongly Agree
1. Choosing a major is a hard decision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The major I choose will decide my future career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Choosing a major is one of the most important decisions I will make when I enter college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The first major I choose is the major I feel best represents what I am passionate about	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. It is unlikely that I will switch my major ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I have a general understanding of the different kinds of majors that are available to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I will choose a major without seeking outside help from anyone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. The career I will most likely go into has little to do with my current major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. It is likely that I will change my major at least once before I graduate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. My major is a representation of my personal values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following statements regarding your parents influence and your choice of major

	(A) Strongly Disagree	(B) Disagree	(C) Neither Disagree or Agree	(D) Agree	(E) Strongly Agree
11. One or both parents are very involved with helping me choose a major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. One or both parents want me to choose a major other than the one I would like for myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. The major I have chosen is one that at least one parent fully approves of	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. One or both parents just want me to be happy and do not care which major I choose	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. One or both parents believe that my major will determine the career I go into	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. One or both parents have a general understanding of the different kinds of majors that are available to me ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	(A) Strongly Disagree	(B) Disagree	(C) Neither Disagree or Agree	(D) Agree	(E) Strongly Agree
17. One or both parents will decide my major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. The major I choose is similar to the major that one or both parents would have chosen had they attended college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. There is little pressure from one or both parents to choose a major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. My major is a representation of my one or both parents interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following statements regarding your friends influence and your choice of major

	(A) Strongly Disagree	(B) Disagree	(C) Neither Disagree or Agree	(D) Agree	(E) Strongly Agree
21. My friends are very involved with helping me choose a major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. I turn to my friends when I have questions about majors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Most of my friends know what it is they want to major in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. My friends have offered to help me choose a major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. More than anyone else, I prefer my friends opinion in helping me choose a major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. My friends have a general understanding of the different kinds of majors that are available to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. My friends do not care much about the major I choose	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. My friends will be supportive of me regardless of the major I choose	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. There is little pressure from my friends when it comes to choosing a major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. My major is a representation of my friends' interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following statements regarding your school's influence and your choice of major

	(A) Strongly Disagree	(B) Disagree	(C) Neither Disagree or Agree	(D) Agree	(E) Strongly Agree
31. My school provides the support I need to help me choose a major.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. My school provides the resources I need to help me choose a major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. There is an adequate support staff at my school that can help me choose a major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. There are majors at my school that reflect my <i>interests</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. I can easily change majors at my school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. I find it easy to choose a major at my school .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. There is no pressure from my school to choose a major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
38. The process of choosing a major at my school is fairly easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
39. There are majors at my school that reflect my personal values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. I am familiar with my school's on-line tools that can help me select a major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Finally, you'll be asked a few questions about yourself. You may be assured of complete confidentiality.

Your responses will be included only together with all other responses. Your name will never be placed on the questionnaire or associated with your answers.

What is your CURRENT major (if undecided, please state UNDECIDED)?

In what year were you born? 19____

41. Are you? (A) Male (B) Female

42. What is your current grade level?

- (A) Freshman
- (B) Sophomore
- (C) Junior
- (D) Senior

43. Which of the following best describes your primary racial or ethnic background?

- (A) Black or African American
- (B) Caucasian (non-Hispanic)
- (C) Hispanic or Latino
- (D) Native American or Alaskan native
- (E) Native Hawaiian or Pacific Islander
- (AB) Asian
- (AC) Other _____

44. Please indicate the type of household that best represents the one in which you spent most of your time growing up.

- (A) Single parent household
- (B) Two parent household
- (C) Other

45. Which of the following best describes the current employment situation of your household's primary care-taker?

- (A) Employed by a company/business/government
- (B) Laid off, but looking for work
- (C) Self-employed
- (D) Other (specify) _____

46. Was at least one or both parents born in the United States?

- (A) Yes
- (B) No

47. To the best of your knowledge, which of the following categories best describes your household's primary care-taker's household income in 2008?

- (A) low (> \$25,000)
- (B) medium (\$25,000- \$50,000)
- (C) high (< \$50,000)

Thank you very much for your time and participation!

LIST OF REFERENCES

- Allen, J. & Robbins, S. (2008). Prediction of college major persistence based on vocational interests, academic preparation, and first-year academic performance. *Research in Higher Education, 49*(1), 62-79.
- Bodenmann, G., Charvoz, L., Bradbury, T.N., Bertoni, A., Iafrate, R., Giuliani, C., Banse, R. & Behling, J. (2006). Attractors and barriers to divorce: A retrospective study in three European countries. *Journal of Divorce and Remarriage, 45*(3/4), 1-24.
- Bui, K. (2002). First-generation college students at a four-year university: Background characteristics, reasons for pursuing higher education, and first-year experiences. *College Student Journal, 36*.
- Bryman, A. (2004). *Social Research Methods* (2nd Ed.). New York: Oxford University Press Inc.
- Chen, X. (2005). *First-generation students in post secondary education: A look at their college transcripts, NCES 2005-171*. Washington, D.C: U.S. Department of Education, National Center for Education Statistics.
- Chibucos, T.R., Leite, R.W. & Weis, D.L. (Eds.). (2005). *Readings in Family Theory*. Thousand Oaks, CA: Sage Publications.
- Choy, Susan P. (2001). *Students whose parents did not go to college: Postsecondary access, persistence, and attainment, NCES 2001-126*. Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- DeBard, R. (2004). Millennials coming to college. In Coomes, M. D., & DeBard, R. (Eds.), *Serving the Millennial Generation* No. 106 (pp. 33-45). San Francisco: Jossey-Bass, Inc
- Del Rossi, A.F. & Hersch, J. (2008). Double your major, double you return? *Economics of Education Review, 27*(4), 375-386.
- Dennis, J.M., Phinney, J.S. & Chuateco, L.I. (2005). The role of motivation, parental support, and peer support in the academic success of ethnic minority first-generation college students. *Journal of College Student Development, 46*(3), 223-236.
- Engle, J., Bermeo, A. & O'Brien, C. (2006). *Straight from the source: What works for first-generation college students*. Washington, D.C: The Pell Institute for the Study of Opportunity in Higher Education.
- Fallon, M.V. (1997). The school counselor's role in first generation students' college plans. *School Counselor, 44*(5), 384-393.
- Farrell, E.F. (2007). Deans can't stand 'helicopter parents,' but they hover, too, when their kids apply. *Chronicle of Higher Education, 53*(34).

- Friedman, S.R. & Weissbrod, C.S. (2005). Work and family commitment and decision- making status among emerging adults. *Sex Roles, 53*(5-6), 317-325.
- Fuligni, A.J. & Pedersen, S. (2002). Family obligation and the transition to young adulthood. *Developmental Psychology, 38*(5), 856-868.
- Galotti, K.M. (2001). Help and hindrances for adolescents making real-life decisions. *Journal of Applied Developmental Psychology, 22*(3), 275-287.
- Galotti, K.M., Ciner, E., Altenbaumer, H., Greets, H.J., Rupp, A. & Woulfe, J. (2006). Decision-making styles in a real-life decision: Choosing a college major. *Personality and individual differences, 41*(4), 629-639.
- Gibbons, M. & Shoffner, M.F. (2004). Prospective first-generation college students: Meeting their needs through social cognitive career theory. *Professional School Counseling, 8*(1).
- Glass, G.V. & Hopkins, K.D. (1996). *Statistical Methods in Education and Psychology* (3rdEd.). Boston, MA: Allyn and Bacon.
- Hahs-Vaughn, D. (2004). The impacts of parents' education level on college students: An analysis using the beginning post secondary students longitudinal study 1990-92/94. *Journal of College Student Development, 45*(5).
- Hartig, N. & Steigerwald, F. (2007). Understanding family roles and ethics in working with first-generation college students and their families. *The Family Journal: Counseling and Therapy for Couples and Families, 15*(2), 159-162.
- Horn, Laura, Nunez, Anne-Marie & Bobbitt, Larry (2000) *Mapping the Road to College: First-Generation Students' Math Track, Planning Strategies and Context of Support* (NCES 2000-153). Washington, DC: US Department of Education, National Center for Education Statistics.
- Horwedel, D.M. (2008). Putting first-generation students first. *Issues in Higher Education, 25*(5), 10-12.
- Inkelas, K.K., Daver, Z.E., Vogt, K.E. & Leonard, J.B. (2007). Living-learning programs and first-generation college students' academic and social transition to college. *Research in Higher Education, 48*(4), 403-434.
- Ishitani, T.T. (2006). Studying attrition and degree completion behavior among first-generation college students in the United States. *Journal of Higher Education, 77*(5), 861-885.
- Ishitani, T.T. (2003). A longitudinal approach to assessing attrition behavior among first-generation students: Time varying effects of pre-college characteristics. *Research in Higher Education, 44*(4), 433-449.

- Jaschik, S. (2007). Data on helicopter Parents. *Inside Higher Ed*. Retrieved December 11, 2008, from <http://www.insidehighered.com/layout/set/print/news/2007/03/15/parents>
- Legutko, R.S. (2007). Influence of an academic workshop on once-undeclared graduates' selection of a major. *College Student Journal*, *41*(1), 93-98.
- Leppel, K., Williams, M.L. & Waldauer, C. (2001). The impact of parental occupation and socioeconomic status on choice of college major. *Journal of Family and Economic Issues*, *22*(4), 374-394.
- McCarron, G.P. & Inkelas, K.K. (2006). The gap between educational aspirations and attainment for first-generation college students and the role of parental involvement. *Journal of College Student Development*, *47*(5).
- Montmarquette, C., Cannings, K. & Mahseredjian, S. (2002). How do young people choose college majors? *Economics of Education Review*, *21*(6), 543-556.
- Nunez, A. & Cuccaro-Alamin, S. (1998). *First-generation students: Undergraduates whose parents never enrolled in postsecondary education, NCES 98-082*. Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Olenchak, F. R. & Hebert, T. P. (2002). Endangered academic talent: Lessons learned from gifted first-generation college males. *Journal of College Student Development*, *43*(2), 195-212.
- Pascarella, E. T., Pierson, C. T., Wolniak, G. C., & Terenzini, P. T. (2004). First-generation students: Additional evidence on college experiences and outcomes. *The Journal of Higher Education*, *75*(3), 249-284.
- Pike, G.R. & Kuh, G.D. (2005). First- and second- generation college students: A comparison of their engagement and intellectual development. *The Journal of Higher Education*, *76*(3).
- Prospero, M. (2007). First-generation college students: Motivation, integration, and academic achievement. *Community College Journal of Research and Practice*, *31*, 963-975.
- Reid, M. & Moore, III, J.L. (2008). College readiness and academic preparation for postsecondary education. *Urban Education*, *43*(2), 240-261.
- Ribar, D.C. & Wilhelm, M.O. (2006). Exchange, role-modeling and the intergenerational transmission of elder support attitudes: Evidence from three generations of mexican-americans. *Journal of Socio-Economics*, *35*(3), 514-531.
- Robst, J. (2007). Education and job match: The relatedness of college major and work. *Economics of Education Review*, *26*(4), 397-407.

- Simpson, J. (2001). Segregated by subject: Racial differences in the factors influencing academic major between European Americans, Asian Americans, and African, Hispanic, and Native Americans. *The Journal of Higher Education*, 72(1), 63-100.
- Somers, P. (2007). Mom needs and “A”: Hovering hyper-involved parents the topic of landmark study. Retrieved December 16, 2008, from The University of Texas at Austin Web site: <http://www.utexas.edu/features/2007/helicopter/>
- Tseng, V. (2004). Family interdependence and academic adjustment in college: Youth from immigrant and u.s.-born families. *Child Development*, 75(3), 966-983.
- Trusty, J. (1998). Family Influences on Educational Expectations of Late Adolescents. *The Journal of Educational Research*, 91(15), 260-269.
- University of Florida. (2008, November 12). *UF facts*. Retrieved December 12, 2008, from <http://www.ufl.edu/facts>
- University of Florida Foundation. (2008, October 20). *Florida Opportunity Scholars*. Retrieved December 12, 2008, from <http://www.uff.ufl.edu/Scholarships/FOS/Default.asp>
- University of Florida Office of Institutional Planning and Research. (n.d.). *Measuring University Performance Series (MUPS)*. Retrieved December 12, 2008, from http://www.ir.ufl.edu/mups/issue_0298.htm
- University of Florida Office of the University Registrar. Retrieved December 12, 2008, from <http://www.registrar.ufl.edu/catalog/policies/advisingprogress/html>
- Urdan, T., Soleck, M. & Schoenfelder, E. (2007). Students’ perceptions of family influences on their academic motivation: A qualitative analysis. *European Journal of Psychology of Education*, 22(1), 7-21.
- U. S. Census Bureau (2006). *Hispanic Americans by the numbers*. Retrieved December 15, 2008, from <http://www.infoplease.com/spot/hhmcensus1.html>
- White, J.M. & Klein, D.M. (2002). *Family Theories*. Thousand Oaks, CA: Sage Publications.

BIOGRAPHICAL SKETCH

Mellissa Gordon was born on the island of Jamaica in 1984. She lived there until she was nine years old, after which time she migrated to the United States. In 2003, Mellissa was admitted to the University of Florida. She graduated cum laude with a bachelor's degree in psychology in 2006. At that time, she returned to South Florida to work and be closer to her family. In 2007, she was admitted to the master's degree program at her alma mater where she majored in family, youth and community sciences. During her program, she worked as a graduate teacher assistant, research assistant and instructor. Mellissa Gordon completed her coursework in 2008 and was awarded a master's degree in 2009 from the University of Florida. She has valued her time at UF, but has decided to venture elsewhere to pursue a doctoral degree in either family relations or child and family development. She credits her academic aspirations to her mother, Gloria, and her siblings, Teddy and Deanna.