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MODELS OF COLLEGE PERSISTENCE INTENTIONS

A DISSERTATION APPROVED FOR THE
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DEDICATION

This work is dedicated to my wife Pamela, whose love and companionship kept me going when nothing else could, and to our children Adam, Jared, and Emily. Without their understanding, patience, and encouragement over the years, it would not have been possible. I would also like to dedicate this work to my parents, Bill and Juanita Fry, for always believing in me, and finally, to my grandma, Mabel Fry, for helping me to believe in myself.

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ABSTRACT

While withdrawal from higher education may be the result of many reasons both within and beyond the control of the student or the institution, the intent of not returning to higher education indicates the acceptance of a permanent disassociation with the pursuit of the higher education endeavor. It is of paramount importance in understanding the relationship between our higher education institutions and our society that those engaged in institutional research develop the fullest understanding of this phenomenon and its implications for the future of those institutions and that society. In order to do this, however, we must look beyond the actual behavior of dropping out and examine the academic intentions underlying those behaviors. This study brought together two lines of research, one drawn from behavioral theory and one from college persistence theory, to develop a model of intentions relating specifically to college persistence intentions.

Two disciplines, behavioral theory and higher education persistence theory have developed along different paths in determining effects on behavior. Each has important implications related to the prediction of college students' decisions to stay in or leave higher education. While each theory is useful, neither is adequate to fully address why and if students will persist in college. First, behavioral theorists have made the distinction between intentions and action. One such theorist, Ajzen, concluded that intentions play the central and primary role in determining actions and developed the Theory of Planned Behavior around this concept. Second, educational researchers have developed models of college persistence that can classified into the perspectives of sociological, psychological, organizational, and economic. The problem identified was that these two lines of research have never been brought together in the examination of

college persistence. This study addressed how to integrate these areas of research in the examination of college persistence and, by doing so, addressed a void in research concerning intentions in college persistence.

The study utilized the background, pre-collegiate experience, and collegiate experience data reported by 372 freshmen and sophomore students at a four-year higher education institution in the development and evaluation of path models for intentions to persist in higher education. This quantitative study analyzed the relationships found to exist among these variables and utilized path analysis techniques in the determination of models of freshman and sophomore college student intentions toward future participation in higher education. Specifically, research questions focused on four areas of analysis: 1) pre-collegiate variables that influence perceptions of higher education experiences; 2) sociological, psychological, organizational, and economic perceptions of higher education experiences that influence intentions regarding participation in higher education; 3) interactions between pre-collegiate variables and perceptions of higher education experiences that influence intentions for participation in higher education; and 4) development of causal models that resulted from the observed relationships among pre-collegiate variables, perceptions of higher education experiences, and intentions for participation in higher education.

Path analysis procedures resulted in rather complex models for intentions of persistence, whether at the same institution or at a different institution, as well as for undecided intentions. On the other hand, path analysis procedures resulted in far less complex models for intentions of stopping out, whether returning to the same institution or a different institution, as well as for intentions of dropping out. All models, however,

met the criteria established for goodness-of-fit and parsimony which characterize accurate and useful models of the phenomena. While collegiate experience factors varied noticeably among the models, several background and pre-collegiate experience variables appeared consistently among the models: mother's education, certainty of major, expectations of attending college, quality of guidance, satisfaction with high school life, distance, and years between graduate. This observation highlighted the relevance of the factors to all of the persistence intention dependent variables.

The study contributed to research in higher education persistence through the development of path models for these intentions. These models were developed to enhance our knowledge and understanding of the character and nature of persistence and departure decisions among college students. The study represented an attempt to look deeper into higher education persistence and attrition phenomena by examining, analyzing, and modeling the academic intentions underlying those actions. An examination of the background, pre-collegiate, and collegiate factors encompassed in this study and their role in the development of academic intentions of students regarding higher education provided causal models that can be used to guide our understanding of intentions regarding participation in higher education for freshman and sophomore students. While college persistence and subsequent graduation are still challenges facing American higher education, the pursuit of a deeper understanding of the character and nature of these constructs offers the hope of addressing these challenges to the benefit of all concerned.

MODELS OF COLLEGE PERSISTENCE INTENTIONS

CHAPTER I

Introduction

Each year untold numbers of college and university students decide to leave higher education and many of those depart having made the conscious determination that they will never return. A recent publication of the Educational Policy Institute (2008), cited the research of Berkner, Cuccaro-Alamin, and McCormick (1996) indicating that "of the 15 million undergraduates attending post secondary education each fall in the U.S., the reality is that one out of every two students will not complete a degree or certificate (p. 7)." Likewise, the Beginning Postsecondary Student (BPS) study of 1995-1996 concluded that "about 45 percent of students leave postsecondary education without earning a degree of some type (p. 8)." The BPS study similarly found that at four-year public institutions only 60 percent of students completed a degree within six years. Furthermore, according to the data cited by the Educational Policy Institute, while "14 percent of all entering students leave during or immediately after their freshman year, … almost the same percentage of students, 13 percent, leave during or immediately after the second year of a four-year degree program (p. 7)." In other words, 27 percent of all entering students would leave higher education within the first two years.

While withdrawal from higher education may be the result of many reasons both within and beyond the control of the student or the institution, the intent of not returning to higher education indicates the acceptance of a permanent disassociation with the pursuit of the higher education endeavor. It is of paramount importance in understanding the relationship between our higher education institutions and our society that those

engaged in institutional research develop the fullest understanding of this phenomenon and its implications for the future of those institutions and that society. In order to do this, however, it is important to look beyond the actual behavior of dropping out and examine the academic intentions underlying those behaviors. To address this issue, this study brought together two lines of research, one drawn from behavioral theory and one from college persistence theory, to develop a model of intentions relating specifically to college persistence intentions. This research was intended to inform and contribute to existing research in higher education persistence through the development of a model of academic intentions regarding higher education.

Background to the Problem Statement

While investigations of higher education persistence frequently include consideration of intentions as a significant factor that influences the action of leaving college, research in this area has stopped short of isolating academic intentions as an educational outcome. This study pursued this avenue by investigating the underpinnings of college students' intentions. That is to say, gaining an understanding of higher education persistence and attrition requires first gaining an understanding of the predecessor of these actions, i.e., the student's state of intentions and future academic plans, as opposed to the actual behavior itself.

The decision to withdraw from higher education is in and of itself an educational outcome, and there has been insufficient research into the factors that might affect whether that decision is of a temporary or permanent nature. Given that these decisions may reflect the effectiveness with which institutions are accomplishing their stated mission or may promote institutional change to that end, investigation of the role of

academic intentions in these decisions is a necessary component of an insightful assessment of the congruence, or lack thereof, between the mission of the institution and the educational needs of the student and of society.

Whereas the focus of persistence research in higher education has been on the departure decision, minimal research has addressed the intentions of college students with regard to their persistence in the higher education endeavor. This study identified and examined factors contributing to the stated academic intentions of students who are attending higher education institutions as well as developed and evaluated predictive models based on these factors. The findings contributed to a deeper understanding of persistence in higher education by providing insight into the character and nature of these decisions.

This study identified and examined factors contributing to stated academic intentions and developed models concerning participation in higher education for students who are attending four-year Research I (Carnegie Classification I) higher education institutions. The study drew upon existing models of student persistence, such as Tinto's Student Integration Model and Bean's Student Attrition Model as well as models of behavioral theory such as Ajzen's Theory of Planned Behavior, in order to achieve this objective. A persistence model was developed by Cabrera, Casteneda, Nora, and Hengstler (1992) that synthesized elements of both Tinto's and Bean's models. As noted in their study, the results of merging elements of the two suggested that "both the Student Integration Model and the Student Attrition Model add relevant knowledge to the understanding of the college persistence process, but that a model integrating the leading factors in each theory may contribute to explain this process better (p. 160)." Likewise,

this study integrated aspects of persistence and behavioral research in the development of causal models of intentions pertaining to future academic plans.

Persistence and intention to persist are two different constructs that are inextricably linked. While persistence denotes the action of either participation or non-participation in higher education, intention to persist reflects the underlying character and nature of that action. Departure from higher education reflects many different states of intention concerning future academic plans, and it is essential to investigate in greater detail the nature of that departure. It is necessary to look beyond the persistence or departure decision itself and examine the future academic intentions that underlie that decision. For example, both an individual who drops out of college because of uncertainty concerning the choice of academic major or career goals and another individual who drops out due to economic constraints exhibit the same action, i.e., departure. They may possess, however, entirely different intentions of ever returning to higher education. Likewise, an individual who remains enrolled and another individual who does not may both possess intentions to persist, the former to persist now and the latter to persist at some time in the future. These distinctions are crucial to understanding the persistence decisions and actions of college students.

The decision to persist in higher education may be influenced by a wide range of factors, and these factors may be either academic or environmental as both Tinto's Student Integration Model and Bean's Student Attrition Model suggest. Indeed, it has been noted by Cabrera, Casteneda, Nora, and Hengstler (1992) that there is a great deal of overlap in these two models and that each tends to confirm the findings of the other with regard to factors that influence higher education departure. These factors include

parental approval, financial attitudes, opportunity to transfer, courses, encouragement of friends, academic integration, social integration, institutional commitment, and goal commitment. The contribution of these theories to this study is that they provided a starting point for building a framework of factors to be explored concerning potential influences on intentions to persist. The contribution of Azjen's Theory of Planned Behavior to this study was that it has identified the central role of intentions in predicting actual behavior (Ajzen, 1988, 2001, 2002). That is to say, Azjen's work provided a linking pin between intentions and behavior, in this case between academic intentions and persistence. The factors identified as influencing persistence, through the works of Tinto, Bean, and others, suggested potential dimensions for the exploration of academic intentions. These studies suggested a starting point for an examination of those factors which might also enhance our understanding of the underlying nature of those actions, specifically future academic intentions.

This study examined the background, pre-collegiate, and collegiate factors as predictors of the academic intentions of students regarding higher education. Specifically, can the development and application of a causal model based on these variables accurately predict academic intentions regarding future participation in higher education?

Statement of Problem

Two disciplines, behavioral theory and higher education persistence theory, have developed along different paths in determining effects on behavior. Each has important implications related to the prediction of college students' decisions to stay in or leave

higher education. While each theory is useful, neither is adequate to fully address why and if students will persist in college.

First, behavioral theorists have made the distinction between intentions and action. One such theorist, Ajzen, has concluded that intentions play the central and primary role in determining actions, i.e., actual behaviors, and has developed the Theory of Planned Behavior around this concept (Ajzen, 1988, 2001, 2002). Note that behavioral theorists have developed models of general behavior, not specifically directed at higher education or persistence. One of the most recognized theoretical models for the role of intentions in behavior that has emerged has been provided by Ajzen's Theory of Planned Behavior. Ajzen's Theory of Planned Behavior was relevant to this study in that it provided support for the significance of the role of intentions in analyzing and understanding the underlying causes of behavior. The Theory of Planned Behavior proposes that intentions are the most important predictors of actual behaviors. Recognition of these findings suggested the need to investigate further the factors that influence these intentions specifically in regard to understanding persistence in higher education.

Second, institutional researchers have developed models of college persistence that can classified into the perspectives of psychological, sociological, economic, organizational, and interactional (Tinto, 1987, 1988). While recognizing that intentions play a role, institutional researchers have developed these models of persistence which do not place focus or prominence on the importance of intentions. These models have focused on the dropout action itself rather than the intentions that underlie that action. Although many theories have been proposed in an attempt to explain college persistence

and attrition, Tinto's Student Integration Model (Tinto, 1975, 1982) and Bean's Student Attrition Model (Bean, 1982) have emerged as the two most comprehensive theoretical models for college departure decisions.

Simply stated, behavioral theorists have identified the importance of intentions and developed behavior models that focus on intentions. In contrast, institutional researchers have developed persistence models that mostly focus on the actual occurrence of the dropout event itself. The problem is that these two lines of research have never been brought together in the examination of college persistence. This study addressed how to integrate these areas of research in the examination of college persistence and, by doing so, addressed a void in research concerning intentions in college persistence.

Purpose of Study

This study addressed a way to integrate the behavioral and college persistence areas of research through the examination of factors that influence academic intentions. The objective was to add to the understanding of higher education persistence and ultimately guide measures to increase retention of students by addressing a void in the research literature concerning the need to understand educational intentions of students in higher education. Using path analysis, models identified aspects of the departure decision, rather than the departure itself.

While investigations of higher education persistence frequently considered intentions as a significant factor which influenced the action of leaving college (Bean, 1985; Cabrera, Nora, & Castaneda, 1993; Carpenter & Fleishman,1987), research in this area has stopped short of isolating academic intentions as an educational outcome. This study sought to understand the intentions of college students as a means of understanding

their behavior. That is to say, gaining an understanding of higher education persistence and attrition requires first gaining an understanding of the predecessor of these actions: the student's state of intentions and future academic plans, as opposed to the actual behavior itself.

There has been a lack of research into the factors that might affect whether the decision to withdraw from higher education is of a temporary or permanent nature. Tinto (1987) states, "In addition, there is still some confusion concerning both the varied character of different forms of departure and the complex causes which lead different individuals to depart from varying institutions of higher education…. That this is the case, despite widespread research, reflects to a significant degree the failure of past research to distinguish adequately between quite different forms of leaving (p. 35)." It the nature of the departure, i.e., whether the departure is temporary or permanent, is voluntary or involuntary, or is reflective of transfer to a different institution, and for what reasons, that demands further examination. Dropping out can be reflective of many different intentions. It is of utmost importance that these distinctions be examined in depth, in order to better understand college persistence.

Numerous studies have examined factors such as parental approval, financial attitudes, opportunity to transfer, courses, encouragement of friends, academic integration, social integration, institutional commitment, intentions, and many others in an effort to determine their roles in influencing higher education persistence. As a result of these studies, intention to persist has emerged as having a central role in influencing persistence behavior. While these studies have identified the significance of the role of intentions in higher education persistence, they have not considered these intentions

themselves as the educational outcome of interest. Rather, they have focused on the eventual behavior of dropping out or persisting as the variable of interest. This study looked deeper and specifically into intentions to persist by examining many factors that have been shown by previous research to contribute to persistence behavior. In other words, while other studies have shown that intentions influence persistence, this study addressed the next logical question, that of which factors influence intentions. This was accomplished by examining influences such as those mentioned above, and others, in order to observe their influence, not upon the persistence behavior itself, but rather, directly upon persistence intentions. Narrowing the focus specifically to the consideration of intentions as the educational outcome and variable of interest served to deepen our understanding of persistence in higher education.

The Research Questions

This study focused on students who were attending four-year Research I (Carnegie Classification I) higher education institutions and drew upon existing models of student persistence, such as Tinto's Student Integration Model and Bean's Student Attrition Model as well as models of behavioral theory such as Ajzen's Theory of Planned Behavior. Specifically, the background, pre-collegiate, and collegiate factors as predictors of the academic intentions of students regarding higher education were examined. Causal models based on these variables were developed to anticipate academic intentions regarding future participation in higher education of freshman and sophomore students.

The research questions addressed in this study were as follows:

1. What pre-collegiate variables significantly influence future academic plans regarding participation in higher education?

2. What collegiate experiences significantly influence intentions regarding participation in higher education?

3. What interactions between pre-collegiate variables and higher education experiences significantly influence intentions for participation in higher education?

4. What causal model resulted from the observed relationships among pre-collegiate variables, higher education experiences, and intentions for participation in higher education?

Significance of the Study

The significance of this study was that it contributed to areas of research in attrition and persistence in higher education through examination of background, pre-collegiate, and college experience variables, as well as their effects on the intentions of college students concerning persistence in higher education. Although many studies have identified and examined factors contributing to withdrawal from the university, little has been done to investigate the frame of mind, attitudes, and conclusions reflected in the future academic intentions of these students.

Definitions

Retention – Retention refers to students who continue enrollment at their current institution.

Persistence – Persistence refers to eventual completion of a degree program irrespective of transfer to another institution, continuity of enrollment, or the time period spanned.

Intent to persist – The term "intent to persist" refers to the forward-looking plans and anticipated actions on the part of an individual to complete a degree program irrespective of transfer to another institution, continuity of enrollment, or the time period spanned.

Intentions/Behavioral intentions – The anticipated actions on the part of an individual regarding a particular behavior. Intentions refer only to anticipated actions and do not indicate whether the behavior in fact ultimately occurs.

Voluntary withdrawal – Voluntary withdrawal refers to departure from an institution that is not mandated by the institution, e.g. due to the failure to meet academic standards or standards of conduct.

Involuntary withdrawal – Involuntary withdrawal refers to departure from an institution that is mandated by the institution, e.g. due to the failure to meet academic standards or standards of conduct.

Attrition – Attrition refers to students who do not continue enrollment at their current institution. This institutional departure includes dropouts and those who are transferring to a different institution.

Stop out – The term "stop out" refers to the act of non-participation in higher education that is temporary in nature. It is not reflective of any particular time the period associated with non-participation nor is it intended to refer to students who transfer to another institution.

Dropout – The term "dropout", within the context of this study, refers to the act of non-participation in higher education whether the nature of that action is permanent or temporary, and voluntary or involuntary. It is intended to be inclusive of all forms of

discontinuity in college enrollment with the exception of students who transfer to another institution.

Social integration – Social integration refers to the degree to which an individual engages in activities and is involved in social relationships and organizations encompassed by the institution.

Academic integration – Academic integration refers to the degree to which an individual engages in activities of an academic nature, e.g. class attendance, individual study, and participation in group projects or study groups.

Behavioral beliefs – Beliefs associated with the likelihood and value of an outcome occurring as a result of a particular behavior (Ajzen & Fishbein, 1980).

Normative beliefs – Beliefs associated with perceived social pressure (Ajzen & Fishbein, 1980).

Background variables – Those variables that pertain to demographic information and pre-collegiate academic experiences from psychological, sociological, economic, and organizational perspectives.

College experience variables – Those variables that pertain to college experiences from psychological, sociological, economic, and organizational perspectives.

Assumptions

Several assumptions of the proposed study are noteworthy. First, it was assumed that self-reported information pertaining to potentially sensitive issues such as one's college persistence intentions was accurately and openly disclosed. Another assumption of this study was that the potentially sensitive nature of the constructs examined in this study were not a factor in determining participation, that is, that a potential participant did

not self-exclude himself or herself on the basis of intentions to drop out. Additionally, it was assumed that the physical environment in which the survey was taken did not adversely affect the willingness of the participant to provide accurate and honest responses. The assumptions of the proposed study were that the aforementioned elements do not influence participation or the responses provided.

Limitations

There were several limitations to the proposed study and the research method utilized. First, this study was conducted within a specific institution, and it may not be appropriate to generalize the results to other institutions. In addition, the variables considered in the study were selected to include significant factors identified in behavioral and college persistence research and may not include all variables related to college persistence intentions. Also, the difficulty associated with the measurement of some of the constructs examined in this study was an acknowledged limitation. Finally, self-reported information pertaining to potentially sensitive issues such as one's college persistence intentions was dependent upon the willingness of the respondent to disclose such information. Many of the limitations mentioned above are not particular to this study but rather are limitations inherent in studies of this nature.

Summary

This study was intended to expand knowledge of persistence among college students. This was accomplished through the development of a causal model of the character and nature of persistence and departure decisions, specifically into the realm of student academic intentions concerning participation in higher education. This model was developed through the examination of background, pre-collegiate, and collegiate

factors, including factors previously identified with the higher education persistence and departure decisions, and their influence on behavioral intentions.

CHAPTER II

Introduction

Education is the hallmark of civilization and nothing exemplifies that hallmark more in the United States than the college degree. No achievement in education is more encouraged, desired, and sought after than a college degree. The reality is that almost half of those who aspire to this goal never achieve it. The rewards and benefits of graduating from college, both tangible and intangible, are widely recognized in society. Understanding the phenomenon of persistence in higher education, however, has proven elusive. Research in college persistence and attrition has culminated in the realization that a critical component of this phenomenon, and perhaps the least understood, is intentions. This study sought to explore the nature and character of these intentions and to illuminate the factors that influence the intentions of college students to persist in higher education.

Most of the research pertaining to the decision to persist in higher education has focused on overt persistence or attrition behavior itself. This study addressed an aspect of the higher education decision that has been underrepresented in much of this research by investigating the future educational intentions of college students and by evaluating the effect of the identified factors on those intentions. As noted by Tinto (1993), "little attention has been given to distinguishing the many differences between those who leave institutions (institutional departure) and those who withdraw from all forms of formal higher educational participation (system departures)" (p. 36). The focus of this study was to examine the effects of these factors, not on departure itself, but rather on the character and nature of the intention to persist, that is, future academic plans. The degree to which

the influence of these factors varies by these different natures of intent was examined. Specifically, this study developed and evaluated the effectiveness of causal models regarding the academic intentions of college students.

Theories of Intentions

Research in behavioral theory has culminated in the recognition that intentions play a central role in the determination of actual behavior. However, the models that have emerged from prior research are models of behavior in general rather than models of behavior within a specific context. While these models have been examined and applied within a variety of contexts and settings, the application of these theories to persistence in higher education has been somewhat limited. If the role of intentions is indeed vital in determining actual behavior, then it is imperative that the intentions of college students are examined in any attempt to understand student behaviors regarding persistence in higher education. In the sections that follow, the attitude-behavior relationship, the theory of reasoned action, and the theory of planned behavior were examined for elements that might contribute to and guide a study of intentions that specifically addressed the intentions to persist of college students.

The Attitude–Behavior Relationship

The relationship between attitude and behavior has long been an area of interest in the field of social psychology. Historically, attitude has been considered to be a significant predictor of behavior, however the lack of evidence supporting a strong and direct relationship between the two has been observed. As early as 1934, the lack of a direct relationship between attitude and behavior was noted in behavioral research including those involving student academic behaviors (Corey, 1937; LaPiere, 1934).

Indeed, in 1969, Wicker's review of research in this area led him to conclude that, overall, these studies suggest that attitudes are only slightly related to overt behaviors. In fact, his meta-analytical review of 42 studies of this relationship indicated that the observed correlation was generally weak. As a result of these observations, research also has been directed at exploring the nature of factors that affect the attitude-behavior relationship. More recently, social psychologists have directed their attention to the investigation of variables that might serve to explain a noted lack of directness in the attitude-behavior relationship. Thus, prior research into the nature of the attitude-behavior relationship has led researchers to pursue the investigation of the existence of variables which may influence this relationship.

One approach to this line of research has been to investigate variables that might act as mediators of the attitude-behavior relationship. The identification of such mediators would illuminate the nature of this relationship by virtue of its ability to further explain the specific means by which, and the degree to which, attitude determines behavior. Foremost in this effort has been the work of Fishbein and Ajzen which suggested that "behavioral intentions" is the primary mediating factor in understanding the relationship between attitude and behavior. In this view, "behavioral intentions are regarded as a summary of the motivation required to perform a particular behavior, reflecting a individual's decision to follow a course of action, as well as an index of how hard people are willing to try and perform the behavior" (Ajzen & Fishbein, 1980, p. 407). In their work, the authors suggested that, rather than the traditional direct relationship between attitude and behavior, attitude influences behavior only to the degree that attitudes influence behavioral intentions. In this view, attitude is seen as only

a single contributor to the formation of intentions. This represented a significant departure from the idea that attitudes directly influence behavior and suggested that behavioral intentions rather than attitudes are the primary and direct predictor of behavior. The culmination of the work of Fishbein and Ajzen in this area has been their Theory of Reasoned Action.

The Theory of Reasoned Action

Fishbein and Ajzen's (1975) theory of reasoned action contends that actual behaviors are the direct result of behavioral intentions. Fishbein and Ajzen suggested that the direct relationship that exists is not between attitude and behavior but rather between intentions and behavior. The distinction between attitude and intentions is that, in their view, attitude is only one component of behavioral intentions. Attitude is seen as the desirability and likelihood of a particular outcome occurring. Fishbein and Ajzen further contended that perceived social pressure is the other main contributor to intentions. Both attitude and perceived social pressure determine intentions. Subsequent research has provided support for the validity of the theory of reasoned action. Sheppard, Hartwick, and Warshaw (1988) reported a correlation of R=.66 in predicting intentions from both attitudes and subjective norm and, in turn, a correlation of R=.53 in predicting behavior from intentions. Evidence supporting the strength of these relationships has led some researchers to consider, although judiciously, the intention construct as a viable surrogate indicator for the behavior itself (Webb & Sheeran, 2006). In other words, intentions are so closely linked to subsequent behavior that they approximate a single construct. These findings suggested the importance of intentions and the value of seeking a greater understanding of intentions. The intent of this study was to focus on intentions

of college persistence and explore influences on specific persistence intentions. Concern that the theory of reasoned action considered only voluntary behaviors, or behaviors within the control of the individual, has led to a revision of this theory. Ajzen recognized the validity of this critique by acknowledging that "The theory of reasoned action was developed explicitly to deal with purely volitional behaviors" (Ajzen, 1988). Ajzen revised and expanded the theory of reasoned action to include "perceived behavioral control," in addition to attitude and subjective norm, as a third factor in the determination of intentions. The rationale for the inclusion of perceived behavioral control as a predictor of intentions is that the perceptions of one's ability to carry out subsequent actions in these instances, in fact, influences one's behavioral intentions. This recognition of behavioral control has particular significance for this study in that, by encompassing involuntary behaviors, the theory has applicability to persistence intentions that relate to either voluntary or involuntary departure circumstances. This revised and more inclusive revision of the theory of reasoned action Ajzen called the "Theory of Planned Behavior."

The Theory of Planned Behavior

As previously mentioned, the Theory of Planned Behavior developed by Ajzen (1988) identifies the three primary predictors of behavioral intentions as attitude, subjective norm, and perceived behavioral control. The relevance of Ajzen's theory to this study was in the recognition of the centrality of intentions in determining subsequent behavior and, by extension, the centrality of persistence intentions in determining persistence. The acknowledgement of these findings demanded an investigation specifically of these intentions as presented in this study, that distinguishes between

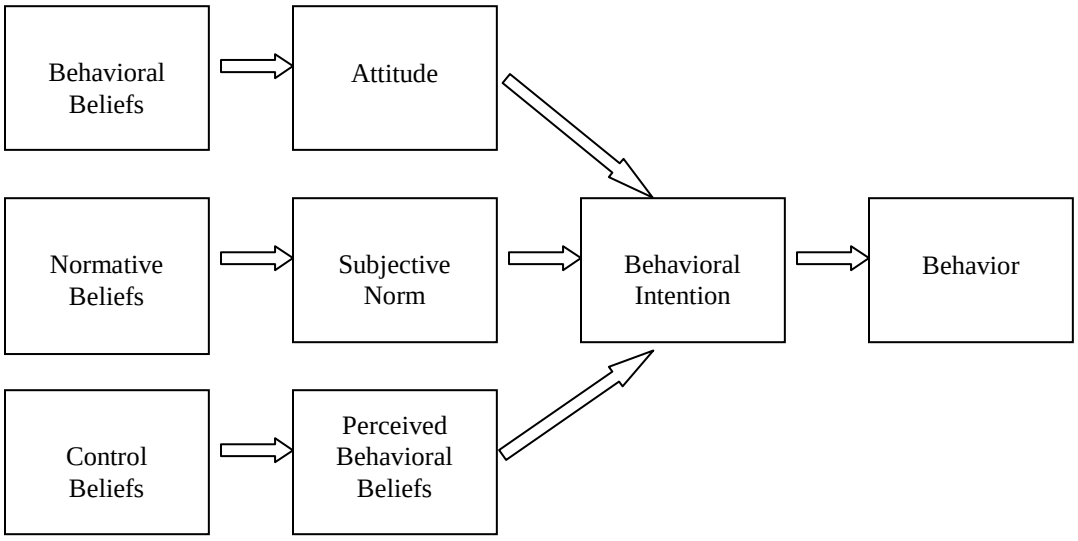
various types of persistence intentions. Additionally, the Theory of Planned Behavior guided this investigation by providing a framework for potential variables that may influence college persistence intentions. The attitude, subjective norm, and perceived behavioral control constructs identified by Azjen as influencing intentions provided such a framework. A study which examines specifically college persistence intentions, such as this one, must ensure the inclusion of variables which encompass these influences.

According to the Theory of Planned Behavior, the attitude, subjective norm, and behavioral control constructs influence intention which, in turn, determines behavior. Ajzen further identified a belief system which serves as the foundation for each of these three factors. The first two of these systems of belief, those associated with attitude and subjective norm, were identified as components of the theory of reasoned action as originally proposed by Fishbein and Ajzen. The underlying beliefs associated with attitude are termed behavioral beliefs. Behavioral beliefs are seen to be comprised of two elements. The first of these is denoted as an outcome belief element which relates to the belief in likelihood of a particular outcome occurring as a result of a particular behavior. The second is denoted as an outcome evaluation element which relates to the value assigned to a particular outcome, i.e., those outcomes that are more highly valued will have a greater effect on one's attitudes. The beliefs associated with subjective norm, referred to as normative beliefs, are those beliefs associated with perceived social pressure and also consist of two elements. These elements, referred to as referent beliefs and motivation to comply, present a weighting or expected value representation of these underlying beliefs which serve as the basis for subjective norm influence on intentions. Again, behavior beliefs and normative beliefs were an integral part of the theory of

reasoned action. With the introduction of the Theory of Planned Behavior, and the inclusion of the perceived behavioral control aspect of the theory, Ajzen likewise identified those beliefs that serve as the foundation for perceived behavioral control. These control beliefs represent the combined assessment of both the frequency and degree of one's abilities to affect a particular outcome. Figure 1 graphically represents the components of the Ajzen's Theory of Planned Behavior.

Armitage and Christian (2004, p. 23) observed that "There have been several meta-analytic reviews of the Theory of Planned Behavior, all of which have concluded that the augmentation of the theory of reasoned action with measures of perceived behavioral control has contributed significantly to the prediction of behavioral intentions and behavior… At present, the Theory of Planned Behavior is arguably the dominant model of attitude-behavior relations."

Figure 1. The Theory of Planned Behavior



Two observations are particularly noteworthy, at this point, with regard to the research utilizing Ajzen's model. First, in light of the broad range of applicability of this model and the research that has been conducted in applying this model to numerous settings and populations, the application of the Theory of Planned Behavior to the higher education endeavor and particularly to the study of persistence in higher education has been notably lacking. Second, it has been suggested that other variables be considered for inclusion in contributing to the predictive ability of this model. Ajzen has, indeed, suggested that additional research needs to be conducted to this end. The Theory of Planned Behavior is in Ajzen's (1988) words, "…open to the inclusion of additional predictors if it can be shown that they capture a significant proportion of the variance in intention or behavior after the theory's current variables have been taken into account." These observations invite the investigation of the applicability and predictive ability of Ajzen's model with regard to the academic intentions of participants in higher education proposed in this study. In recognition of the relationship between intentions and behavior described by the Theory of Planned Behavior, the relationship between intention to persist and college student departure was considered in this study.

Summary of Theories of Intentions

The development of behavioral models such as the Theory of Planned Behavior has led to the recognition of the importance of intentions in the determination of subsequent behavior. While these models are not defined in terms of intentions within a specific context, they have identified categories or genre of factors that influence intentions in general terms. These conceptual groups of factors include the perception of the likelihood of outcomes, perceived social pressure, and perceived ability to control

outcomes. An application of these theories to the higher education setting must therefore ensure that these factors are represented. The inclusion of variables related to self-efficacy, parental approval, and locus of control, for example, would be representative of these sources of influence on intentions. Inclusion of such variables in an examination of the persistence intentions of college students would reflect these findings. For variables that might influence intentions within this specific context, one can draw upon research in a closely related area, that of college persistence. In the pages that follow, prevailing theories of college persistence were considered which guided a study of intentions in this area.

Theories of Persistence in Higher Education

In general, a great deal of research has been done in recent decades concerning persistence in higher education, attrition, and graduation rates as well as the many factors that have been identified as playing a role in these measures. Studies also have examined the decision to persist in higher education for non-traditional students (Bean & Metzner, 1985) and older students (Grosset, 1991). Leppel (2001) identified different graduation rates for different fields of study. Other studies have been directed at the causes of attrition for a specific major, most notably those majors in mathematics, engineering, and other sciences. Likewise, many have been limited in scope to consideration of a specific college or major (Simpson, 1987). Particularly, much of the research pertaining to persistence has focused on the consideration of the freshman year (Leppel, 2001; Pascarella & Terenzini, 1980). In examining factors that influence the academic success during the sophomore year of college, Graunke and Woolsey (2005) noted that “Because much of the research regarding retention has focused on first year

students, further research may be needed for other class levels, specifically sophomores (p. 3)." Gahagan and Hunter (2006) stated that "while less empirical evidence about the range and severity of issues facing sophomores exists than that for first-year students, a heightening interest in sophomores…strongly suggests that an increasing number of educators are turning their attention to this 'middle child' population" (p. 17). They further noted that programs, services, and resources designed to facilitate persistence were generally oriented toward first-year students, i.e., the initial transition to college, and frequently are not designed to extend into the sophomore year. In their words, "The second year remains a largely unexplored frontier for both students and institutions and deserves additional attention" (p. 22). Due to the acknowledged lack of research in this area directed at the sophomore year, this study addressed these concerns through the development of causal models of persistence intentions relating specifically to the population of freshman and sophomore students at a particular higher education institution.

Theories pertaining to persistence in higher education can be characterized in terms of five categories: psychological, sociological, economic, organizational, and interactional (Tinto, 1987). Each of these approaches presents a different orientation, perspective, and insight into the research on persistence.

Psychological Perspective

From a psychological perspective, many theories have been advanced in an effort to explain student departure and persistence in higher education. These theories have arisen in an attempt to explain persistence and departure at a more fundamental level than is provided by the sociological perspective. In this view, the sociological perspective

deals only with behaviors and actions. The contention that has led to the development of psychological theories of persistence is that these behaviors and actions are the manifestation of the psychological characteristics and processes of the individual. Psychological approaches to persistence modeling emphasize the significance of the psychological aspects of the student as providing the more fundamental underpinnings of the sociological theories, that is, the psychological aspects that result in the actions and behaviors described in sociological theories. Bean and Eaton (2000) characterized psychological theories of student persistence as falling into four categories: attitude-behavior theory, coping behavioral theory, self-efficacy theory, and attribution theory. Attitude-behavior theory focuses on intention. Here, individual beliefs dictate intention, and it is intention that leads to behavior. In coping behavioral theory, coping is seen as adjustment and adaptation to a new environment, and it is the ability of the individual to develop coping strategies that leads to reconciliation or integration with that new environment. Self-efficacy theory, on the other hand, has been suggested by Bandura (1986) and focuses on an individual's self-perception and confidence in his or her ability to succeed in achieving a particular end. Self-efficacy theory contends that it is this self-perception of propensity for success, in both social and academic realms, that motivates behaviors associated with persistence. Attribution theory, generally associated with Weiner, ascribes particular significance to a student's perception of locus of control. Within this context Weiner (2010) has viewed the students' perceptions of their degree of control over a situation as the key element in determining their level of motivation in engaging in behaviors that increase the likelihood of persistence. As a point of critique regarding the attributional theory, it can be interpreted as focusing primarily on academic

integration. Likewise, the recommendations addressing attributional retraining focus primarily on altering the perceptions of the individual, thereby reducing the recognition of the role of the dynamic, both social and academic, that has been described and supported by the sociological perspective. Bean and Eaton (2000) proposed a model which integrates these four types of psychological approaches to student retention into a general psychological model of college student retention. As a synthesis of these approaches, the model outlined psychological characteristics and processes that contribute to the intent to persist and ultimately to persistence.

In considering the implications of this model for the research proposed here, a significant distinction can be observed. In the Bean and Eaton model, intent to persist leads to persistence. This study, although not inconsistent with this model, focused on the potential that the same intent to persist may indeed exist in the departing student. This distinction between voluntary and involuntary withdrawal and its relationship to future academic plans was, rather, the focus of the consideration of student persistence with the purpose of clarifying the relationship between "intent to persist" and withdrawal. Insight provided by the study with regard to intent to persist as interpreted by future academic plans also provided insight into the influence of contributing factors toward voluntary and involuntary withdrawal.

Sociological Perspective

One of the first theoretical models of the college attrition process was developed from a sociological perspective which gave prominence to the importance of social integration in college persistence (Spady, 1970, 1971). This approach presented a view of student retention that focuses on social aspects of the higher education experience.

These theories emphasize the significance of the role of social forces in the investigation of student departure from higher education. Prominent among proponents of this perspective are Spady (1970), Tinto (1975), and Braxton (2000). The origins of the sociological approach can be found in the work of William Spady, who noted the role of social participation in a student's persistence in higher education. Spady's work in this area led to a model of student attrition which served as a springboard for the development of subsequent sociological models of college persistence. Spady's model views individual student characteristics and social influences as the primary determinants of social integration. A greater the degree of social integration in the college experience, in turn, leads to increased institutional commitment and persistence to graduation. Individual or background characteristics identified by Spady such as family background, socio-economic status, academic ability were seen to interact with social factors such as the support of friends, and perceived social expectations as determinants of the likelihood of dropping out or persisting in college. The role of social integration and the significance of this sociological perspective have served as a foundation for subsequent persistence studies and models. Most notably, the sociological perspective has served later research in the development of models that extend the concept of integration in the college experience to include not only social integration but also academic integration.

Economic Perspective

The economic theoretical perspective of higher education retention and attrition has, as its foundation, the analysis of the cost/benefit influences associated with these decisions. The impetus for the development of this perspective has been an increased awareness not only of the relevance of the economics of the investment in higher

education but also the recognition of the lack of consideration given these factors in other models. Proponents of this perspective include Cabrera, Nora, and Casteneda (1993). This perspective acknowledges the perception of the individual in that such considerations entail not necessarily actual costs and benefits, but rather, perceived costs and benefits associated with these decisions. From this perspective, economic factors such as ability to pay, availability of financial aid, family financial support, and tuition levels not only directly influence persistence decisions but may also have direct influences on many aspects of social integration. As evidenced by the work of Anderson and Astin, the extent to which a student is engaged in off-campus employment, full-time or part-time negatively influences persistence. In contrast, part-time on-campus employment has been seen to positively influence persistence. In the words of Pascarella and Terrenzini (1991), "Wenc (1983), and Ehrenberg and Sherman (1987) have argued that the differential impacts of on-campus and off-campus work on persistence and degree attainment are due in large measure to the former experience enhancing involvement and integration in the institution while the latter experience tends to inhibit it" (p. 407). Based on these observations, it seems clear that there is a great potential for consolidating these two perspectives, and indeed there have been efforts directed toward this objective. Many studies considering the economic aspects of the departure process have focused on and provided support for the positive effects of scholarships, grants, and loans on student persistence. Research of this nature has provided further support that the positive effects associated with scholarships and grants are far more significant than that associated with loans. The work of Astin (1972, 1975, 1977) in this area has cited financial difficulties as one of the most frequently identified reasons for departure. A

major criticism of economic models has been that they tend to concentrate on the cost/benefit analysis mindset, if not actual at least perceived, to the exclusion, or at least minimalization, of the contribution of sociological factors.

With regard to the research questions posed in this study, here again, departures that are of an involuntary nature due to financial constraints were reflected through a consideration of the future academic plans of the departing student. It seems that the development of a more generalized "socio-economic" model would be the next logical step in a progression toward a more all-inclusive model of the departure process. The implications of this conflict, and initiatives toward its resolution, for this study were in the importance of accommodating both perspectives within the factors considered. This amounts to an acknowledgement of the criticisms that have been directed at both sociological and economic models, that each has been exclusive of the other. Therefore, precaution must be taken in the design of any instrument to incorporate the economic influences cited and supported by previous literature in the development of economic models to ensure that the issues are addressed and that the integrity of the study is maintained, in light of the somewhat separate lines of research. Indeed, utilizing such an approach in the study at hand served to further the investigation into the potential integration of these perspectives.

Organizational Perspective

The organizational perspective of student persistence in higher education gives emphasis to the role of institutional characteristics and processes as factors in these decisions. These organizational structures include such institutional aspects as size of the institution, faculty student ratios, resources, and admissions selectivity. Organizational

behaviors that have been identified as affecting student departure include communication processes, administrative rules and policies, and the degree of student participation in organizational decision-making. Within this context, Birnbaum (1988) has identified four models of organizational behavior that characterize aspects of higher education institutions, referred to as bureaucratic, collegial, political, and anarchical, and advocates the significance of these characteristics in promoting or inhibiting social integration and persistence. Astin (1975) has examined the influence of the perceptions of these institutional factors, particularly measures of college climate, on retention and student satisfaction with the college experience. Braxton (2000) has emphasized the need for further research into the effects of these factors in a diverse range of institution types.

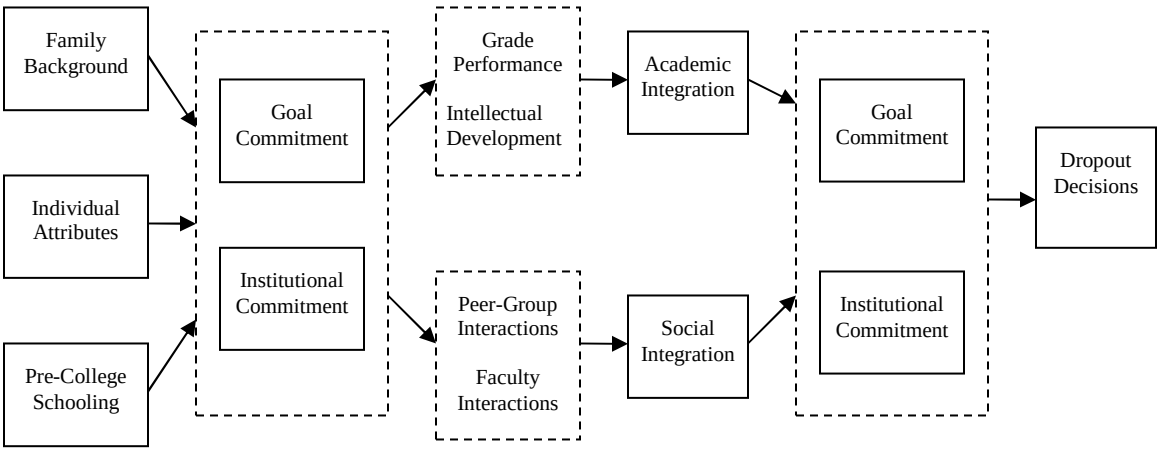
The implications of this perspective for the proposed study were in the recognition of the limitations imposed by confining the research problem to the consideration of a single institution. The significance of the effects of these institutional characteristics and behaviors necessitates expanding research with regard to studies that span institutions and institution types. Such studies represent an ambitious, yet beneficial, and indeed necessary undertaking, and one that perhaps would lend itself to a meta-analysis approach. The value of the organizational approach has been recognized as a significant component of the study of student departure, and the lack of attention given to this aspect within the sociological perspective, for example, has been recognized. This does however represent an expansion of any general model of persistence in yet another direction. Additionally, the organizational behaviors associated with institutions of differing characteristics represents yet another layer of complexity into the analysis of student departure and persistence. This, of course, results in

significant restrictions as to the applicability and potential for generalization of the findings. The desirability of conducting research which spans institutions has been acknowledged by persistence researchers. Given that this research was directed at extending the existing research into the area of future academics plans, the additional consideration of multiple institution types risks the introduction of variables that might obscure the effects that were of direct interest in this study. By the same token, it was essential that there was appropriate acknowledgement that factors associated with this perspective were not considered in this study and that due recognition was given to the limitations of the findings in this regard, that is, in the resulting limitations for generalizing the results.

Interactional Perspective

Building upon Spady's work, one of the leading researchers associated with the sociological approach has been Vincent Tinto. Tinto (1975) has proposed a model of student departure that characterizes these decisions and outcomes as being a function of influences lying within two domains: academic and social. A graphical representation of Tinto's model is provided in Figure 2.

Figure 2. Tinto's Student Integration Model



Specifically, Tinto uses the terms academic integration and social integration to describe the degree of congruence between the individual and the environment. That is to say, Tinto submited that a student enters into the higher education environment with a unique set of characteristics and skills and that persistence in the higher education endeavor is strongly influenced by the compatibility among these traits and skills and the environment, both academic and social, presented by the institution. Much of Tinto's theory is rooted in what has been termed intra-institutional persistence. However, subsequent studies by other researchers have attempted to test the theory in relation to multi-institutional persistence analyses. This approach has been referred to as Tinto's interactional theory in recognition of this student-institutional relationship in both the academic and social domains. This theory represents an interactional perspective in that these influences are not seen as simply the outcomes associated with the traits, characteristics, and skills of the individual, but rather, is dependent upon the relationship or interaction between the student and the institution. This is in contrast to some earlier models of student persistence which viewed the phenomena in terms of college impact on the student. The distinctions here are centered around the active and/or passive roles of these entities. In this view, suggested in some of the earlier work of Astin, the student is seen in a somewhat passive role in the persistence process, i.e., the student is impacted by the institution. In Tinto's model, both the student and the institution are seen as active participants in the development, or lack thereof, of a relationship that will result in persistence. Tinto does not contend that persistence in higher education is desirable in all circumstances. Rather, his model is an attempt to describe the processes of student persistence and departure in terms of the influences of academic and social factors on

these processes. The emphasis on the existence and significance of the dynamic nature of these academic and social factors, as well as the active nature of the roles of both the student and the institution characterizes this interactional perspective.

Summary of Persistence Theories and Perspectives

The relationship of this research to these major perspectives of persistence research may be summarized as follows: With regard to the sociological perspective, this study attempted to extend the scope of these models to include the state of intent to persist, i.e., beyond the decision to withdraw itself, toward the future academic plans of the individual. This opportunity to expand the application of these models represented potential insights into the relationship between academic and social integration and educational outcomes. Psychological models have emphasized the importance of "intent to persist" in persistence models. This intent to persist is seen as the precursor to the actual persistence/departure decision. These models, however, do not give adequate recognition to the fact that, at the time of departure, the student possesses a current state of intention, i.e., future academic plans. This provided credence to the value of such an examination of a departing student's state of intent with the potential of developing a more recursive or iterative approach to these psychological models. Concerning economic models, by ensuring recognition of economic factors in the study presented here, the research contributed to efforts to integrate student-institution models with economic models, the value of which has been widely recognized in persistence research. Proponents of the economic perspective have themselves indicated that the effects of many of these economic factors are manifested, at least in part, in the degree of and opportunity for social integration. Although attempts have been made, and continue to be

made, to integrate these two perspectives, i.e., the sociological and the economic, they have largely evolved along separate lines. General recognition that, to some degree, each perspective has given inadequate recognition of the contributions of the other to developing a general model points to the value of studies that ensure inclusive factors. The research presented here included factors from each of these perspectives to contribute to a synthesis of these models. The implications of the critiques of these perspectives to the proposed study were thus to ensure, in the consideration of factors considered, prudent representation of these perspectives. Consideration of the implications of the organizational perspective for the present research pointed to the necessity of recognizing and acknowledging the limitations imposed by confining the research to the study of a single institution. In addition, the recommendations for future research in the area provided in the study identified relevant issues for researchers that intend to conduct related investigations for other types of institutions. In conclusion, an awareness of these different theoretical perspectives not only provided insight for the researcher in conducting the study, but also enhanced the potential for evaluation of the findings of the study in relation to these perspectives.

Two dominant theoretical frameworks have emerged for college departure decisions. The first is Tinto's Student Integration Model which examines the degree of congruence or incongruence between the student and the institution in academic and social domains. The second is Bean's Student Attrition Model which examines persistence in terms of intellectual and environmental factors. The environmental factor identified in this model can be interpreted as a more broadly defined construct than the social factor identified in the Student Integration Model. Although many theories have

been proposed in an attempt to explain college persistence and attrition, these two theories have provided the most comprehensive framework on college departure decisions. Although both models have attempted to explain the same persistence process, little effort has been made to examine the extent to which the two models can be merged or integrated. However, Cabrera, Castaneda, Nora, and Hengstler (1992) have provided evidence that there is considerable overlap between the two theories and have attempted to examine the nature of departure within the context of both. According to one study which compared the two models, "A close examination of the two theories, for instance, apparently indicates that a high degree of overlap exists across the two theories…" (Cabrera, Nora, Casteneda, 1993, p. 125). The integration of these models examined in their work served as a guide for the consideration of factors that were also relevant to this study of college persistence intentions.

As previously noted there is a noticeable gap in the research concerning the differentiation between students that intend to, at some point, continue in higher education and those that do not. The focus of persistence research has been on the departure behavior rather than on the future educational intentions of the student. This study addressed an aspect of persistence and attrition beyond the departure decision itself. It examined the intent to persist. That is, are the factors identified by established models such as Tinto's Student Integration Model and Bean's Student Attrition Model as influencing persistence in college also accurate predictors of the academic intentions of these students? This study addressed the question of whether the considered background, pre-collegiate, and collegiate factors influenced, not only persistence, but also the students' intentions regarding persistence.

Consideration was given to the influence of these factors within the conceptual framework of the two models in an effort to understand the influence of these factors and to serve as a starting point to form the basis for a model for departing students' intentions of returning to higher education. The significance of this study was in the examination of an aspect of persistence that could contribute to a deeper understanding of the departure or persistence behavior by providing insight into the future intentions of the student with regard to higher education.

The Relationship Between Intentions to Persist and College Student Departure

In a study of the intentions of high school seniors with regard to higher education, Carpenter and Fleishman (1987) examined the link between intentions and behavior and concluded that the Fishbein-Ajzen model "provides a useful but incomplete representation " (p. 79) of this relationship. Their study incorporated the utilization of additional variables suggested by Liska (1984) to include components intended to be reflective of the effects of other independent variables which might interact with intentions or that might directly affect behavior. Liska had suggested that two primary factors, resources and opportunity have a direct effect on intentions and ultimately behavior and are not explicitly taken into account in the Fishbein-Ajzen model. Specifically, Carpenter and Fleishman (1987) drew upon the work of Liska in revising the Fishbein-Ajzen model to include variables relating to these factors, such as skill acquisition, and specific environmental and social circumstances. In examining the effect of intentions on actual behavior, they concluded that "the strong effect of behavioral intentions is consistent with the Fishbein-Azjen formulation (p. 97)." Their results further indicated, "The best predictor of actually attending college is behavioral

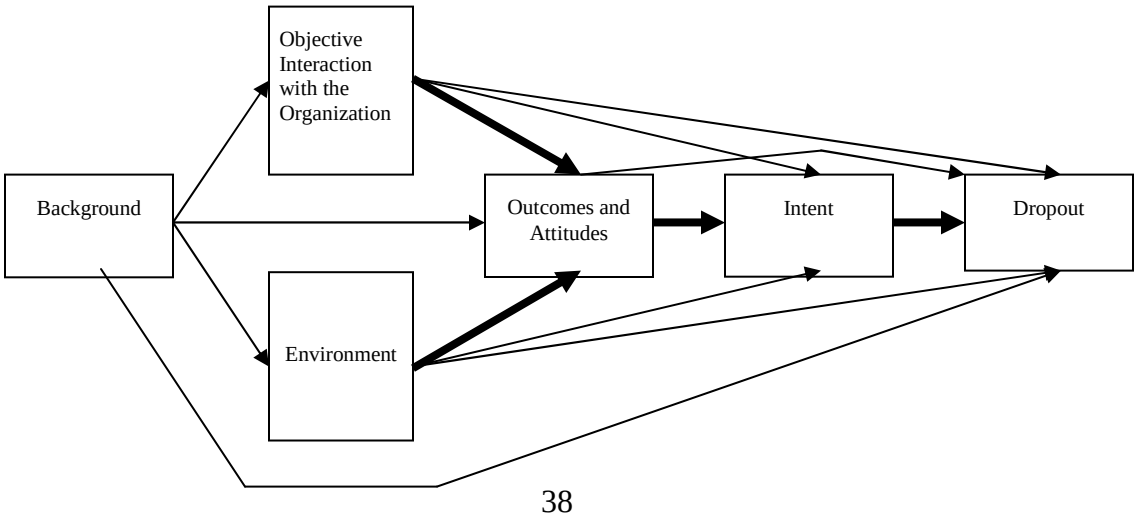
intentions to continue education" (p. 91), and "Attitudes toward college, perceived parental encouragement, and friends' plans all correlate strongly with intentions to enter college, as the Fishbein-Ajzen model suggests" (p. 93). While the work of Fishbein and Ajzen had acknowledged that their model was intended to address only voluntary behaviors, Carpenter and Fleishman also conclude that the degree to which a behavior is voluntary, or the degree to which behaviors are under the control of the individual, is also a significant factor in determining intentions and that Liska's additions would reflect this factor. As a result of their findings, Carpenter and Fleishman also recommended that additional research be pursued which would examine in greater detail students' academic and non-academic self-concepts in illuminating the link between intentions and behavior.

Further examining Liska's work, Davis (1985) utilized status attainment variables, particularly those relating to the degree of educational attainment, in conjunction with the model in testing Liska's proposed modifications to the theory. Davis' findings confirmed the strong relationship between behavior intentions and behavior, but also indicated that resources and opportunity did have a significant direct influence on ultimate behavior.

Bean (1982) proposed a model utilizing aspects of the Fishbein-Ajzen work in order to investigate student attrition in higher education. In the development of this model Bean utilized ten independent variables, including intention, in determining their predictive ability with regard to college student attrition (Figure 3). Bean used a sample of over 1500 college freshman categorized as high or low confidence men and high or low confidence women. In this study, the dependent variable was considered to be the discontinuity of enrollment at a single institution. Students transferring to another

institution, and suspended students were considered dropouts, a term that Bean used interchangeably with student attrition. In this regard, Bean did not distinguish between voluntary and involuntary institutional departure. The independent variables utilized which were considered to have the greatest effect on student attrition were intent to leave, practical value, certainty of choice, loyalty, grades, courses, educational goals, major and job certainty, opportunity to transfer, and family approval of the institution. Intent to leave was defined as "the estimated likelihood of discontinuing one's membership in an organization" (Bean, 1982, p. 293). In the analysis of the four groups studied, Bean concluded, "In each path model, intent to leave had the largest direct influence on dropout." In summarizing the findings of his research, Bean stated "In each case, intent to leave was the best predictor of actual attrition (p. 317)." Bean also notes that "the finding that intention intervenes between the determinants and dropouts powerfully, and in the predicted manner, helps justify the Fishbein/Ajzen (1975) basic assumption about human nature that attitudes and past behaviors act through intentions in affecting future behavior (p. 296)."

Figure 3. Bean's Student Attrition Model



Smart and Pascarella (1987; 1986), in their research into the influences on the intention to reenter higher education, proposed a causal model of these factors in predicting the intent to return of adults with regard to departure. The independent variables utilized in their model were classified into categories of initial undergraduate experiences, characteristics of their employing organizations, early career experiences, and current self-concept. The findings indicated that the independent variables accounted for a significant portion of the variance in the dependent variable, intent to return. They also noted that these factors were associated with the intentions of returning to higher education rather than pertaining to the persistence of traditional students. In their work, Smart and Pascarella (1987) noted "the centrality of intentions to subsequent voluntary persistence/withdrawal behaviors of students (p. 307)." They cited Bean's findings that "'intention to leave' is by far the single best predictor of subsequent dropout behavior for men and women (p. 307)" in this regard.

Summary

Prior research concerning demographic variables which influence college persistence has resulted in the identification of some factors which consistently emerge as significant contributors in predicting higher education persistence, although the magnitude and nature of the effect varies notably across studies which are typically limited to specific or narrowly defined populations. Notable among these, Astin (1993) has contended that ethnicity, gender, high school grades, and SAT scores significantly influence persistence in higher education. Likewise, in a study examining transfer from two-year to four-year institutions, Peng and Fetters (1978) concluded that ethnicity and SES have significant effects on college persistence. In addition, they found financial aid

to be a significant contributor to persistence. The significant effects of parental education on participation in higher education have also been identified by Anderson, Bowman, and Tinto (1972). Borus and Carpenter (1984) also found that both the father's and mother's education were a major influence on college attendance outcomes.

Research which has been directed at the investigation of high school factors associated with college attendance and persistence also has yielded numerous factors which consistently emerge as predictors of college participation outcomes. Peng and Fetters (1978) found academic achievement in high school, educational aspirations, and availability of financial aid to be significant predictor variable for college withdrawal.

Many variables relating to the college experience itself and their effects on college persistence were identified by Cabrera, Casteneda, Nora, and Hengstler (1992). Some of these included parental approval, financial attitudes, encouragement of friends, institutional quality and fit, and social integration. Whereas the variables considered in their study were developed with regard to the consideration of a particular institution, these variables were redefined for the purposes of this study to reflect, rather, measures of these factors pertaining to the higher education experience in general. For example, concerning the measure of family approval, the variable under consideration related to family approval of pursuing higher education rather than whether the family was supportive of attending a particular institution.

This study contributed to existing research in higher education persistence in two ways. First, it served to integrate factors and perspectives identified by prevailing models in persistence research with those identified by prevailing behavioral theory regarding behavioral intentions in order to provide insight into the character and nature of

persistence and departure decisions regarding higher education. Second, the study served this area of research by virtue of the fact that it identified, through the use of path analysis, causal models for academic intentions, in predicting, not the persistence behavior itself, but rather the future intentions of students with regard to participation in higher education.

Chapter III

Introduction

The data used in this study was obtained from the results of a survey that drew upon some items, with modifications, from a survey developed by Cabrera, Casteneda, Nora, and Hengstler (1992) as well as items developed by this researcher specifically for this study. The survey was conducted at a four-year higher education institution and utilized the statistical methods of path analysis in order to develop causal models pertaining to the stated academic intentions of students at a four-year higher education institution.

Methodology

The large number of variables under consideration in this study, and the even larger number of relationships among these variables, necessitated the use of a consistent and systematic means of identifying the nature and strength of relationships among variables. This suggested the utilization of a quantitative approach to this objective. Also, the large number of variables under consideration necessitated the use of as large of a sample as possible. A quantitative approach represented an efficient way to collect measures of these variables for such a large sample. The quantitative approach was also consistent with the approaches frequently used in many studies that have related to persistence behaviors. The use of a quantitative methodology for this study would allow for a more direct comparison to the findings of these studies. Likewise, the quantitative approach would represent a consistency with these models in any future efforts to synthesize the models developed in this study with models of persistence behaviors. For these reasons, a quantitative approach was utilized in this study.

The objective of this study was to examine the relationships of factors pertaining to higher education persistence intentions and to develop of models of the cause and effect nature of these relationships. While the foundation of the development of such models is the statistical correlation observed among variables, the objective was to develop models of the causal relationships among these variables. Also, in an effort to examine in detail the relationships between variables it was desirable to consider the direct, indirect, and total effects of dependent variables on the dependents variable. The statistical procedures associated with path analysis provided a means for accomplishing this goal.

The Research Questions

1. What pre-collegiate variables influence perceptions of higher education experiences from sociological, psychological, organizational, and economic perspectives?
2. What sociological, psychological, organizational, and economic perceptions higher education experiences influence intentions regarding participation in higher education?
3. What interactions between pre-collegiate variables and perceptions of higher education experiences influence intentions for participation in higher education?
4. What causal model resulted from the observed relationships among pre-collegiate variables, perceptions of higher education experiences, and intentions for participation in higher education?

Design of Study

This study developed causal models of college persistence intentions specifically to the population of freshman and sophomore students at four year Research I (Carnegie

Classification I) higher education institution. The data used in this study was taken from the results of a survey instrument that was administered to a sample of freshman and sophomore classes. The survey items consisted of questions relating to background variables, pre-collegiate variables, college experience variables, and specific academics plans. This quantitative study analyzed the relationships found to exist among these variables and utilized path analysis techniques in the determination of a model of freshman and sophomore college student intentions toward future participation in higher education. The goal of this design was to develop a model of intentions which is specific to college persistence intentions.

Population

The population under consideration in this study was freshman and sophomore students attending a large, comprehensive, public state university in the Midwest. The university is a Research I (Carnegie Classification I) institution which has 20 colleges offering 158 majors at the baccalaureate level. The institution was founded in the late nineteenth century and has a total undergraduate enrollment of 19,000. Of these 24.9% are classified as freshman and 20.1% are classified as sophomores. Approximately three fourths of the student body are residents of the state. The institution offers 2,885 undergraduate classes and of those less than 4% have more than 100 students. The average class size is 34.6 students and the student-to-instructor ratio is 18:1. The freshman class has an average ACT score of 25.9 and an average high school GPA of 3.62. The average age of undergraduate students is 21.1 years. Of full-time undergraduates, 49.7% are female and 50.3% are male. Twenty-one percent are minority

students. The freshman and sophomore classes at this institution represented the population for this study.

Sample and Data Collection

The data used in this study was taken from the results of an anonymous online survey instrument. The online survey was made available to 7,683 freshman and sophomore students at a comprehensive public Research I (Carnegie Classification I) higher education institution. An e-mail was sent to each student requesting his or her participation in the proposed study. The 372 responses to the survey represented a 4.8% response rate. These freshman and sophomore e-mail addresses were provided by the Office of Enrollment Services of the university for the purposes of this study. The e-mail provided a link to the online survey. Participation was not encouraged through the provision of an incentive due to difficulties associated with administering such an incentive while preserving participant confidence that the anonymity of the respondent would be maintained. A second reminder e-mail was sent approximately one week after the initial request. The online survey was accessible for a period of one month from the time the initial e-mail request was sent. Along with the surveys, a notice was provided that requested participation, indicated the nature of the survey, gave reasons for conducting the survey, and stated the confidentiality of responses. An SPSS data file was constructed from responses to the surveys. This data served as the basis for all subsequent statistical analyses. Data collected from responses to the surveys was utilized in subsequent statistical analyses. The intent, purposes, and design of the study as well as the survey form were submitted to the Institutional Review Board for approval, and data collection began upon approval of the IRB. Data collected from the survey instrument

were entered into SPSS (Statistical Package for the Social Sciences), and the statistical procedures, i.e., Path Analysis procedures discussed later, were performed using this software. The survey data as well as subsequent analyses will be retained for a length of time as specified by the IRB.

Variables of Interest

The dependent variable used in this study was the stated intent regarding future participation, or the lack thereof, in higher education, i.e., future academic plans. This stated intent was measured categorically by survey responses regarding future academic plans including withdrawal from participation in higher education, persistence at the same institution, transferring to another institution, and withdrawal with the intent of returning to the same or another institution at some time in the future.

The independent variables used in this study were background, pre-collegiate, and college experience factors that represent a synthesis of constructs, that have emerged in previous intentions research and persistence research. In this study, additional variables were included in order to address previously identified shortcomings of prevailing models. These included questions that related to psychological, economic, and organizational perspectives. Although these are variables that have been identified as correlates of persistence behaviors, the close connection between persistence intentions and persistence behaviors necessitated their inclusion in this study. Specifically, variables were included in consideration of locus of control, confidence in major, work constraints, family constraints, academic support opportunities, likelihood of academic success, and perceived economic benefit. Variables concerning locus of control and family constraints were designed to be reflective of the psychological perspective.

Variables concerning confidence in major, academic support opportunities, and academic rigor/success were designed to be reflective of the organizational perspective. Variables concerning work constraints and perceived economic benefit were designed to be reflective of the economic perspective. The inclusion of these variables was designed to ensure that, in addition to adequately representing the factors identified by Cabrera, Casteneda, Nora, and Hengstler (1992) as encompassing the factors identified in their integration of the Student Attrition Model and the Student Integration Model, the sociological, psychological, organizational, and economic perspectives were also all adequately represented.

The dependent variable in this study was the stated intent concerning future participation in higher education, i.e., their future academic plans. For this survey item the respondent was asked to indicate his or her intentions regarding continuing enrollment at the same institution, transferring to a different institution, temporary withdrawal, and complete withdrawal. This indication of stated intentions, measured categorically represented the dependent variable in this study.

The independent variables examined in this study were considered in two groups. The first group constituted those variables that reflected the demographic and pre-collegiate experiences of the student. These were referred to collectively as background variables. Among the demographic variables considered were gender, ethnicity, income, father's education, mother's education, primary language, high school size, and residence city size. Among the high school or pre-collegiate experience variables considered were college attendance by friends, scholarship and loan aid, certainty of career choice, expectations of college attendance, parental expectations, satisfaction with guidance

counseling, ACT score, high school GPA, proximity to college, satisfaction with school life, and immediacy of entrance to college. Again, the term background variables will be used in this study to refer to the collection of both the demographic and pre-collegiate variables. The second group constituted those variables that reflected the collegiate experiences of the student. Among the collegiate experience variables considered were family encouragement, satisfaction with financial aid, opportunity to transfer, satisfaction with curriculum, encouragement of friends, satisfaction with academics, personal relationships, goal commitment, work and family obligations, and financial expectations. As discussed previously, it is important that the variables considered reflect the various perspectives that have emerged in previous persistence research, i.e., the psychological, sociological, organizational, and economic perspectives.

The background variables considered to be representative of the psychological perspective were certainty in major/career choice, self-expectations for college, ACT score, and high school GPA. The college experience variables selected to be representative of the psychological perspective were academic integration, goal commitment, locus of control, and family constraints.

For the purposes of this study, the background variables reflecting a sociological perspective were gender, ethnicity, SES, educational aspiration, father's education, mother's education, ESL, and satisfaction with high school experiences. The college experience variables selected to be representative of the sociological perspective were parental approval, opportunity to transfer, encouragement of friends, institutional quality and fit, social integration, and institutional commitment.

The background variables relevant to the organizational perspective were classification, high school size, resident city size, and high school guidance. The college experience variables for the organizational perspective are courses, confidence in major, academic support opportunities, and likelihood of academic success.

The background variables considered from the economic perspective were scholarship recipient, loan recipient, and proximity to college. The college experience variables for this perspective were financial attitudes, work constraints, and perceived economic benefit.

The variables selected for this study were chosen to represent, not only those variables which have been identified as significant in prior research, also to include additional variables which will address the multiple perspectives of persistence studies, the lack of which has been a notable criticism of many of those studies while focusing specifically on the academic intentions aspect of this research. The fact that these independent variables have been identified in prevailing persistence models as acting through intentions necessitated that they be included in this study of intentions to persist.

The variables of interest in this study consisted of 39 variables representing the multiple perspectives of existing persistence theory. The major focus of each of these variables in this regard is categorized in Table 1 and Table 2.

Table 1

Background Independent Variables

Item	Variable	Perspective
1	Classification	Organizational
2	Gender	Sociological
3	Ethnicity	Sociological
4	Father's education	Sociological
5	Mother's Education	Sociological
6	ESL	Sociological
7	Resident City Size	Organizational
8	SES	Sociological
9	High School size	Organizational
10	Certainty in major/career choice	Psychological
11	Self-expectations for college	Psychological
12	Parental-expectations for college	Sociological
13	H.S. guidance	Organizational
14	Satisfaction with H.S. experience	Sociological
15	Educational Aspiration	Sociological
16	Scholarship recipient	Economic
17	Loan recipient	Economic
18	ACT score	Psychological
19	H.S. GPA	Psychological

20	Proximity to college	Economic
21	Delayed college entrance	Economic

The following college experience variables were utilized in representing the multiple perspectives of existing persistence theory. These college experience variables served as dependent variables with respect to the background variables and also served as independent variables with respect to the dependent variable of future academic plans.

Table 2

College Experience Independent Variables

Item	Variable	Perspective
22	Parental approval	Sociological
23	Financial attitudes	Economic
24	Opportunity to transfer	Sociological
25	Courses	Organizational
26	Encouragement of friends	Sociological
27	Institutional quality and fit	Sociological
28	Academic integration	Psychological
29	Social integration	Sociological
30	Institutional commitment	Sociological
31	Goal commitment	Psychological
32	Locus of control	Psychological
33	Confidence in major	Organizational

34	Work constraints	Economic
35	Family constraints	Psychological
36	Likelihood of academic success	Organizational
37	Academic support opportunities	Organizational
38	Perceived economic benefit	Economic
39	Sense of entitlement	Psychological

Table 3

Dependent Variables

Item	Variable
40	Intentions to persist at the same institution
41	Intentions to persist at a different institution
42	Intentions to stop out return to same institution
43	Intentions to stop out return to different institution
44	Intentions to drop out
45	Intentions of undecided

The method of measurement of each of these variables is provided in Appendix A.

The Survey Instrument

The survey items in this study were developed to reflect measures of the factors mentioned above. Respondents were asked to indicate to what extent each of a number of reasons contributed to their persistence intentions. In addition, respondents were asked to state their future academic intentions. This data formed the basis for the study. The

instrument included modified versions of some items contained in a survey developed by Cabrera, Casteneda, Nora, and Hengstler (1992) that are representative of their synthetic model approach. Additional variables were included to address shortcomings of prevailing models. Specifically, these additional variables related to locus of control, confidence in major, work constraints, family constraints, academic support opportunities, likelihood of academic success, and perceived economic benefit. This instrument was constructed to include information that allows for the discerning of institutional from system persistence intentions as well as temporary from permanent persistence intentions

The instrument was designed to reflect higher education persistence perspectives previously discussed in this study that have been identified as playing a significant role in the determination of intent and higher education persistence. The goal was to integrate these various perspectives in a model that predicts student intentions with regard to participation in higher education. These perspectives included psychological, sociological, organizational, and economic approaches. The major focus of each of the survey instrument items in this regard is categorized in Table 1 and Table 2. The survey instrument is provided in Appendix A.

The independent variables examined in this study were placed in two groups. The first group constituted those variables that reflect the demographic and pre-collegiate experiences of the student. These were referred to collectively as background variables. The second group of independent variables constituted those variables that reflect the collegiate experiences of the student.

The dependent variable used in this study was the stated intent regarding future participation, or the lack thereof, in higher education, i.e., future academic plans. For this survey item the respondent was asked to indicate his or her intentions regarding continuing enrollment at the same institution, transferring to a different institution, temporary withdrawal, and complete withdrawal. This indication of stated intentions represented the dependent variable in this study.

Background Variables

The survey items associated with demographic information were gender, ethnicity, SES, father's education, mother's education, ESL, high school size, and resident city size. All demographic variables were measured categorically. Demographic information survey items were stated as follows:

Item #1 - Classification

Item #2 - Gender

Item #3 - I consider my ethnicity to be

Item #4 - Father's education

Item #5 - Mother's education

Item #6 - I consider English to be my primary language

Item #7 - Approximate size of city of permanent residence

Item #8 - Approximate annual family income

Item #9 - Approximate size of high school graduating class

The survey items associated with high school experiences were educational aspiration, scholarship recipient, loan recipient, certainty in major/career choice, self-expectations for college, high school guidance, ACT score, high school GPA, proximity

to college, view of school life, and delayed college entrance. All high school experience variables were measured continuously using a Likert scale ranging from 1 to 5. High school experience survey items were stated as follows:

Item #10 - My certainty regarding major/career choice was

Item #11 - My expectations of attending college were

Item #12 - My parent's expectations of me attending college were

Item #13 - The quality of guidance counseling which I received in high school concerning college options to be

Item #14 - Satisfaction with high school experience was

Item #15 - Approximate percentage of friends who planned to attend college

Item #16 - I received scholarship(s) to attend college which would cover

Item #17 - I received loan(s) to attend college which would cover

Item #18 - My approximate ACT score was

Item #19 - My approximate overall H.S. GPA was

Item #20 – The approximate distance from my city of residence to college was

Item #21 - Number of years between graduating high school and entering college

College Experience Variables

The survey items associated with college experiences were certainty in major/career choice, self-expectations for college, ACT score, and high school GPA. All college experience variables were measured continuously using a Likert scale ranging from 1 to 5. College experience survey items were stated as follows:

Item #22 - My family's encouragement to continue attending this university

Item #23 – My satisfaction with the amount of financial support I have received while attending this university

Item #24 - The difficulty involved in transferring to another college, university, or junior college

Item #25 – My satisfaction with my courses and curriculum

Item #26 - My close friends encouragement to continue attending college

Item #27 – My sense of belonging at this university

Item #28 – My satisfaction with my academic experience

Item #29 – My satisfaction with the personal relationships I have developed personal relationships with other students

Item #30 – My confidence in the decision to attend college

Item #31 - The importance to me of getting a college degree

Item #32 – My sense of having sufficient options concerning my college experience

Item #33 – My confidence in my choice of major

Item #34 – The difficulty involved in meeting work obligations while attending college

Item #35 – The difficulty involved in meeting family obligations while attending college

Item #36 – My confidence in my ability to be academically successful in college

Item #37 – My satisfaction with opportunity for academic support such as tutoring and study groups

Item #38 – My confidence that getting a college degree will be financially worth the investment

Item #39 – My sense of entitlement

Future Academic Plans Variable

The survey items associated with the dependent variable, academic intentions, was measured categorically. The survey items associated with future academic plans and the categories associated with the dependent variable were as follows:

What percent likelihood would you assign to each of the following in describing your intentions regarding future college enrollment?

Item #40 My intention is to continue attending this institution next semester.

Item #41 My intention is to transfer to another college/university next semester.

Item #42 My intention is to continue attending this institution, but not next semester.

Item #43 My intention is to transfer to another college/university, but not next semester.

Item #44 My intention is to not attend a college/university in the future.

Item #45 I am undecided in my intentions regarding college/university attendance in the future.

The variables selected for this study were chosen to represent, not only those variables which have been identified as significant in prior research, also to include additional variables which will address the multiple perspectives of persistence studies, the lack of which has been a notable criticism of many of those studies while focusing specifically on the academic intentions aspect of this research. The survey instrument is provided in Appendix A.

Method

This study utilized observed correlations among variables in the development of causal models for academic intentions. The objective of this study was to extend previous research addressing the relationships of factors pertaining to higher education persistence intentions toward the development of models of the cause and effect nature of these relationships. The development of such models was grounded in the notion of the statistical correlation observed among variables, however, such correlations serve only as a foundation for the development of models addressing the causal relationships among these variables. These correlations, considered in isolation, simply indicate the strength of relationship, or lack thereof, and do not imply causation. As stated by Kenny (1979), "Three commonly accepted conditions must hold for the scientist to claim that X causes Y: 1) Time precedence, 2) Relationship, and 3) Nonspuriousness" (p. 2). The requirement of time precedence indicates the necessity to establish the real-time sequential relationship between two variables, i.e., that one variable chronologically precedes another. In this study, the time precedence criterion mentioned above was observed by the consideration of the sequential nature of the pre-collegiate factors, collegiate factors, and resulting intentions concerning plans for higher education. The requirement of relationship indicates the necessity that a significant correlation exists between two variables. The second criterion, relationship, was met by modifying a preliminary proposed model which incorporated all identified variables, based upon the significance of observed correlations, resulting in the development of a final model. That is to say, the relationship criterion was met by the inclusion of only those variables for which a significant relationship, i.e., correlation, was shown to exist. Nonspuriousness

requires that the correlation between two variables is not due entirely to a third variable. The nonspuriousness criterion was addressed in this study by careful consideration of multiple significant correlation coefficients that were observed involving the same variable. Meeting these three specified conditions allows one to infer causal relationships among the variables of the proposed model. The statistical procedures associated with path analysis provided a means for accomplishing this goal.

Path Analysis

Path analysis was originally developed by Sewell Wright (1934) as a method of examining the relationships between variables that were hypothesized to be of a cause and effect nature. As Wright stated it, "… the method of path coefficients is not intended to accomplish the impossible task of deducing causal relations from the values of the correlation coefficients (p. 193)." Path analysis is not intended to identify causal relationships but rather to test hypotheses of causal relationships. According to Wright, "In cases in which the causal relations are uncertain, the method can be used to find the logical consequences of any particular hypothesis in regard to them (p. 557)." Path analysis, therefore, offers a means of testing causal models that implicitly involve assumptions regarding cause and effect relationships through the use of correlation coefficients. The results of such an analysis of correlation coefficients can then be interpreted as supportive or unsupportive of the hypothesized causal relationships and model. Specifically, this method of analysis provided a means of evaluating the hypothesized relationships among pre-collegiate variables, college experience variables, and persistence intentions.

Path Diagrams

Path diagrams are graphical representations of a causal model and the relationships among variables. Some of the conventions associated with the use of path diagrams and some of the terminology associated with path analysis as pertinent to this study will be useful at this point. The figure below serves to illustrate the notations and conventions associated with path diagrams.

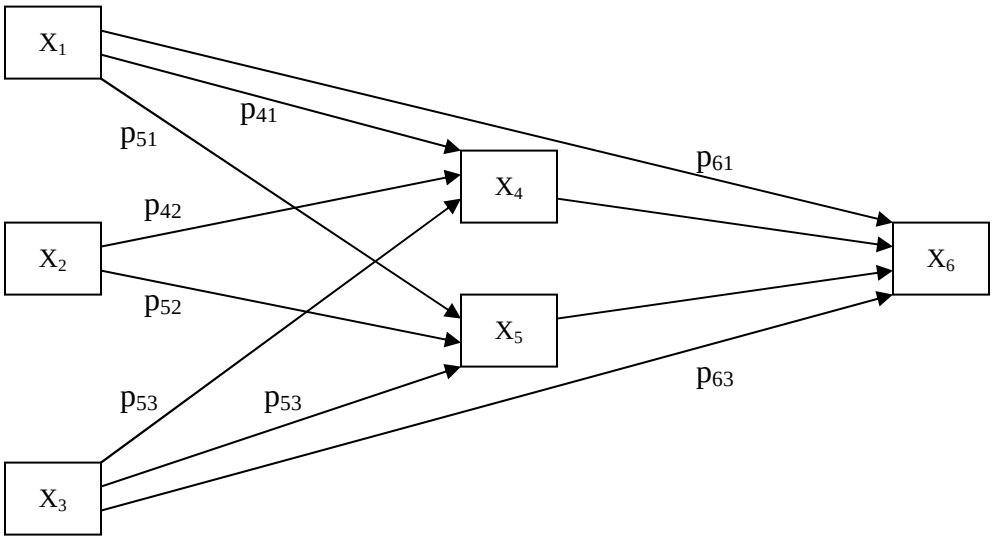


Figure 4. Path Analysis Representation

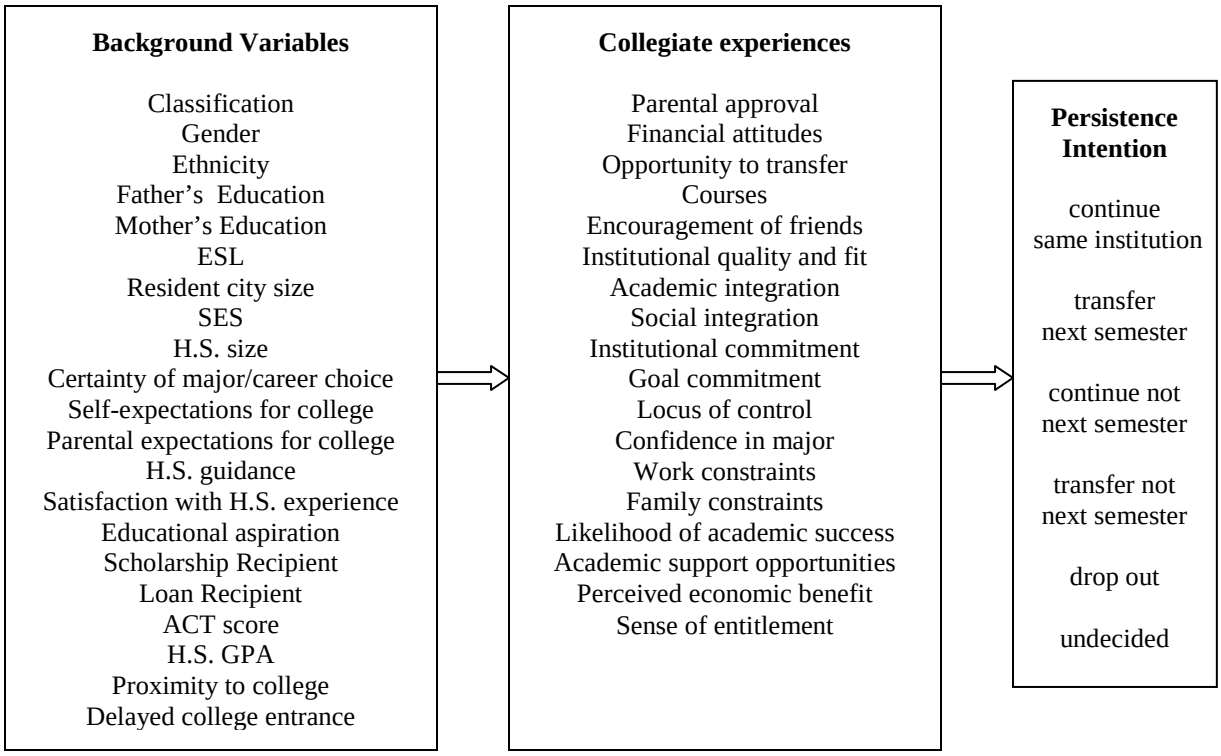
As is consistent with path analysis conventions, a unidirectional arrow pointing from one variable to a second variable indicates that the first is assumed to be the cause and the second is assumed to be the effect. Path analysis models that contain no loops and in which all paths are unidirectional, such as the one above, are referred to as recursive models. In such a model, the independent variables are referred to as exogenous variables and the dependent variables as endogenous variables. In the figure provided, variable X_1 is represented as the cause of variable X_4. The path coefficient between

variable X_1 and variable X_4 indicates the strength of the correlation between these two variables and the path associated with these two variables is represented as p_{41}. Note that the first subscripted index designates the effect variable. Note also, that one endogenous may serve as the cause of another endogenous variable, e.g. variable X_4 is shown as an effect of variable X_1 , but X_4 is also a cause of variable X_6. The path coefficient indicates the strength of the direct effect of the cause variable on the effect variable. Path coefficients are related to and derived from the correlation coefficient between the two variables. One of the strengths of path analysis lies in the potential for the decomposition of correlations, that is, the potential for breaking down an effect into constituent components, i.e., direct and indirect effects.

The Preliminary Path Model

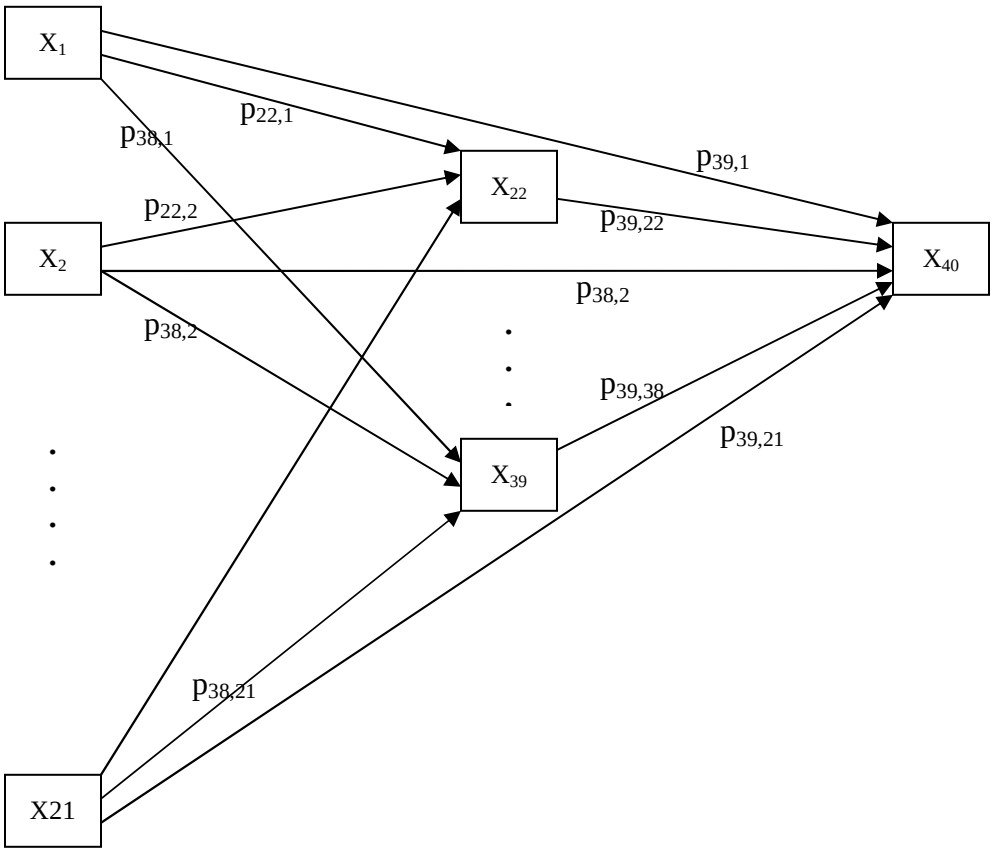
The path model developed in this study consisted of an analysis of the relationships among pre-collegiate experiences, collegiate experiences, and academic intentions. The causal flow and variables under consideration at each of these stages are depicted in figure 2 below. As shown, pre-collegiate experiences represent exogenous or independent variables, while collegiate experiences and behavior intention represent endogenous or dependent variables. A graphical representation of the study variables is presented in Figure 5.

Figure 5. Overview of Study Variables



The preliminary path model in this study consisted of an analysis of the relationships among prior collegiate and pre-collegiate experiences that encompass aspects of the behavior and persistence theory perspectives discussed, as well as their influences in predicting academic intentions. The preliminary path model proposed in this study is presented in the path diagram in figure 6 below.

Figure 6. Preliminary Path Model



where:

X_1=Classification
X_2=Gender
X_3=Ethnicity
X_4=Father's Education
X_5=Mother's Education
X_6=ESL
X_7=Resident city size
X_8=SES
X_9=High School size
X_{10}=Certainty in major/career choice
X_{11}=Self-expectations for college
X_{12}=Parental expectations for college
X_{13}=H.S. guidance
X_{14}=Satisfaction with H.S. experience
X_{15}=Educational aspiration
X_{16}=Scholarship recipient
X_{17}=Loan recipient
X_{18}=ACT score
X_{19}=H.S. GPA
X_{20}=Proximity to college
X_{21}=Delayed college entrance
X_{22}=Parental approval
X_{23}=Financial attitudes
X_{24}=Opportunity to transfer
X_{25}=Courses
X_{26}=Encouragement of friends
X_{27}=Institutional quality and fit
X_{28}=Academic integration
X_{29}=Social integration
X_{30}=Institutional commitment
X_{31}=Goal commitment
X_{32}=Locus of control
X_{33}=Confidence in major
X_{34}=Work constraints
X_{35}=Family constraints
X_{36}=Likelihood of academic success
X_{37}=Academic support opportunities
X_{38}=Perceived economic benefit
X_{39}=Sense of entitlement
X_{40}=intent

Development of the Final Path Model

First, a correlation matrix was generated to determine the strength of the relationship between all combinations of pre-collegiate experience variables, collegiate experience variables, and dependent variables in the study. Next, for each dependent variable, those collegiate experience variables showing a significant correlation with that dependent variable, at the .05 level, were selected for inclusion in the model. Likewise, for each collegiate experience variable included in the model, only those pre-collegiate variables which showed a significant correlation were retained. Next, relationships between the collegiate variables were examined and only significant paths were retained in the model. Finally, relationships between the pre-collegiate variables, i.e., covariances, were examined and only correlations that were significant at the .05 level were retained in the model. Based on the results of this analysis, for each independent variable with regard to each of the dependent variables, a revised or final model was proposed. This procedure resulted in path models for each of the persistence intentions examined in this study. These models were then evaluated with regard to goodness-of-fit, parsimony measures, and decomposition of effects. As stated by Pedhazur (1979), "one of the advantages of path analysis is that it affords the decomposition of correlations among variables, thereby enhancing the interpretation of relations as well as the pattern of the effects of one variable on another" (p. 588). To this end, path coefficients were decomposed into direct and indirect effects. In the interest of exploring these relationships further, post hoc analyses were performed to provide any additional insight into the details of the predictive value of the model.

Assumptions

Assumptions of the study were as follows.

1. Self-reported information pertaining to potentially sensitive issues such as one's college persistence intentions were accurately and openly disclosed. Even though substantive efforts were made to assure the survey respondent of his or her anonymity, some of those selected may have been less confident in the degree of anonymity associated with an electronic survey.
2. The potentially sensitive nature of the constructs examined in this study were not a factor in determining participation, that is, that a student who had intentions of dropping out was not less likely to participate than one who had intentions of persisting. Likewise, a student who attributed intentions of dropping out to failures of the institution, negative academic classroom experiences, or inadequate advisement were not more likely to respond than one who attributed intentions of departure to personal reasons. The assumption is that a potential participant did not self-exclude himself or herself on this basis.
3. The physical setting and environment in which the survey is taken did not adversely affect the responses of the participant. While the physical setting in which the survey is taken may vary in conduciveness for filling out the survey, such as the activity level in surrounding areas and privacy, the willingness to provide accurate and honest responses were not be affected. Responses to the survey were not affected by environmental circumstances which may vary from the privacy of a dorm room to the level of activity associated with an open student computer lab.

The assumptions of the study were that the aforementioned elements did not influence participation or the responses provided.

Limitations

There were several limitations to the study that related to the ability to generalize the results and to the research method utilized.

1. The first of these limitations arises from the nature of the specific population being surveyed. The fact that the respondents were drawn from a large four year Research I (Carnegie Classification I) university in the Midwest limits the applicability of the findings to higher education institutions that are similar in nature. This study was conducted within a specific institution, and it may not be appropriate to generalize the results to other institutions.
2. The survey did not address all aspects of the educational experience that may influence college persistence intentions. The variables considered in the study were selected to be representative of and to encompass relevant factors identified in behavioral and college persistence research. The background and collegiate experience variables utilized in this study may not include all factors related to college persistence intentions.
3. Some of the variables utilized in this study represented measurements of constructs of significant complexity. The difficulty associated with the measurement of such constructs is an acknowledged limitation of the study.
4. Self-reported information pertaining to potentially sensitive issues such as one's college persistence intentions is dependent upon the willingness of the respondent to disclose such information. Even though substantive efforts will be made to

assure the survey respondent of his or her anonymity, some of those selected may be less confident in the degree of anonymity associated with an electronic survey.

5. The availability of computer access for those selected may have varied among those selected for the survey.

Many of the limitations mentioned above are not specific to this study but rather are limitations inherent in any study utilizing a random sample or an electronic survey in which responses are self reported. These limitations, however, may provide guidance in future avenues of research in this area.

Summary

In conclusion, the strength of path analysis lies in the ability to provide statistical evidence that is either supportive or not supportive of hypothesized causal relationships, in this case, students' academic intentions. The results indicated whether the statistical relationships observed support the final path model as predictive of academic intentions among college students. Subsequent post hoc analyses provided further insight into the nature of these results. This analysis indicated whether the causal model proposed showed substantive predictive ability concerning the specific persistence intentions of college freshman and sophomores attending a four year higher education institution.

Chapter IV

The research questions posed in this study attempted to investigate an area of interest that lies at the center of existing research in higher education persistence. Specifically, this research investigated the state of future academic plans of students who were currently participating in higher education. The intentions of these individuals with regard to their future academic pursuits may range from an intent to stop out for a semester in order to deal with personal issues to dissatisfaction with their educational experience leading to a determination of not returning to higher education. Tinto's model provided insight into the influences on the departure decision itself. The research proposed in this study built upon this well established model by providing additional insight into these future intentions. The intent was to determine whether the factors identified by Tinto and others can inform us regarding, not just the departure decision, but beyond that, the future academic plans of these individuals. In this way, this study utilized prevailing theory, such as Tinto's Theory of Student Departure, and extended the application of that theory to the investigation of a closely related area, that is, intentions. In so doing, the study utilized the academic and social factors identified by Tinto in determining the significance of some of these same factors, as well as others, in predicting future academic plans. In this context, the research extended the predictive value of such a model beyond the persistence or departure behavior into the prediction of intentions in this regard. Also, the degree to which these individual factors already identified contribute to the departure behavior may inform us as to the nature and character of that decision. In this way, the intention was to draw upon established theory in the research of student persistence in higher education, to build upon this theory by

contributing new information to this existing body of research, and to provide insight into academic intentions regarding persistence in higher education. One of the ways that this is informative is by the consideration of the outcome of pre-collegiate and collegiate experiences, not as departure, but rather as academic plans. That is, although departure may be reflective of an incongruence, either of an academic or social origin, between the student and the institution, the departure event may indeed occur even if congruence exists in both domains. This distinction would be discernable if one considered, as suggested by this study, not the occurrence of the departure event itself, but rather the nature and character of the departure as operationalized by consideration of future academic plans as the educational outcome. The dependent variable in this study specifically identified different types of persistence intentions by differentiating among intentions to continue enrollment at the same institution, transfer to a different institution, temporarily withdraw, or completely withdraw. This differentiation among types of persistence intentions represented the dependent variable in this study.

Results

The purpose of this study was to develop and evaluate causal models for intentions among college students to persist in higher education. The following sections detail the procedures, analyses, and results utilized to achieve this objective as well as evaluations of the resulting causal models for intentions to persist in higher education.

Descriptive Statistics

There were 372 respondents to the study's survey that generated information about their demographic backgrounds, pre-collegiate experiences, collegiate experiences, and intentions to persist in high education. The computer software Statistical Package for

the Social Sciences (SPSS) was utilized to generate descriptive statistics for the data collected. The following descriptive statistics regarding the sample are noteworthy. The complete descriptive statistics generated for the sample data are provided in Appendix B.

- 35.4% were male and 64.6% were female;
- 45.7% were freshmen and 53.2% were sophomores;
- 72.6% reported their ethnicity as White, 5.1% as Black, 4.6% as Hispanic, 4.8% as Native American, 8.9% as Asian, and 3.5% as "other";
- 4.6% of the respondents reported their fathers did not graduate from high school, 24.5% of the fathers had a high school diploma, 34.1% of the fathers had a bachelors degree, and 25.0% of the fathers had an advanced degree;
- 3.5% of the respondents reported their mothers did not graduate from high school, 28.8% of the mothers had a high school diploma, 36.8% of the mothers had a bachelors degree, and 18.3% of the mothers had an advanced degree;
- 93.5% reported English as their primary language and 5.4% did not
- 25% reported a family income of 49,000 or less and 25% reported an income greater than 120,000;
- 25% reported a high school graduating class size of 145 or less and 25% reported a high school graduating class size of 600 or more

Development of the Path Model

The following sections outline the sequential procedures that were used in the development of a final path model for each of the dependent variables relating to intentions to persist in higher education. The path analysis computer software AMOS, a

specialized statistical component of SPSS, was utilized to perform the path analysis and to calculate evaluation indices for the models.

The Fully Recursive Model

The fully recursive path model served as the starting point for the development of models of intentions to persist in higher education. The fully recursive model, otherwise referred to as the "just-identified model," is the path model that includes all study variables as well as all path relationships between these variables. Figure 7 below depicts all study variables from which a process of model reduction will proceed.

Figure 7. Study Variables

Model Reduction and Correlation Matrices

The development of an accurate, parsimonious, and useful model of persistence intentions began with an examination of the data in an effort to identify those relationships between variables that are of statistical significance. This was accomplished through the utilization of the correlation matrices for all the study's variables. Specifically, the correlation matrices were examined to identify any

relationship, i.e., correlation coefficient, between any two variables that were significant at the .05 level of significance. Of the 1,035 relationships which constitute the paths of the fully recursive path models, 241 were statistically significant at the .05 level. The relationships that were found to be significant are listed below. The correlation matrices for all study variables are provided in Appendix B. An important first step in the development of a reduced model was the inclusion of the dependent variable of interest and those college experience variables for which significant correlations with the dependent variable existed. The results of this step are shown in Figure 8. With college experience variables that had no significant direct relationship with the dependent variable removed from the model, pre-collegiate and background variables were in turn examined for their significant correlations with college experience variables. Only background and pre-collegiate variables observed to have significant correlations with the college experience variables of the reduced model were retained for inclusion in the model. Next, correlations between college experience variables were examined for significance and only those relationships that were observed to be significant at the .05 level were retained in the reduced model. The hypothesized causal direction of the relationships between college experience variables is reflected in the path diagrams in causal order, i.e., any given variable is considered to be a cause for any variable shown below it and an effect of any variable shown above it. As the last step in developing the final path model, correlations between background and pre-collegiate experience variables were examined and only the relationships between these independent variables that were shown to be significant were included. It is noteworthy that for paths between exogenous variables such as these, while there is recognition of the correlation between

the variables there is no implied assumption of a causal relationship between any two. The retention of collegiate experience variables and paths as well as sequential inclusion of background and collegiate variables and paths described above resulted in the final path model for the given dependent variable.

Evaluation of Goodness-of-Fit for Path Models

A path analysis was performed on the final path model for each dependent variable in order to evaluate the goodness-of-fit for the identified. The goodness-of-fit measures obtained through the path analysis reflect the degree to which the model is representative of the observed data. The measure of goodness-of-fit utilized in this study is the Normed Fit Index (NFI). The NFI is a goodness-of-fit index that has a range of 0 to 1.00 with 1.00 representing the fit of the fully recursive model. Blunch (2008) notes that NFI values "larger than 0.95 are usually taken as an indication of a good fit (p. 115)." Consideration of the NFI will provide a sound indication whether the derived model for the given dependent variable is accurate.

Evaluation of Parsimony for Path Models

One of the objectives of path analysis is to test the accuracy of a parsimonious, i.e., reduced or simplified, model of a complex phenomenon. The usefulness of the proposed model for any dependent variable is contingent upon this balance between accuracy and parsimony. For the purposes of this study, the degree to which the fully recursive model could be reduced to a limited number of variables and paths with minimal loss of model accuracy was evaluated through the use of the Parsimony Normed Fit Index (PNFI). The PNFI is a parsimony-based measure which recognizes the degree of reduction from the fully recursive model, i.e., the number of variables and paths in the

reduced model, as well as goodness-of-fit. Since adding variables and paths to a model necessarily increases the goodness-of-fit, the PNFI provides a means of assessing the balance between model accuracy and simplicity. Like the NFI, the PNFI also has a range of 0 to 1.00. According to Blunch (2008), "parsimony based fit indices are much lower than the other normed fit measures. Values larger than 0.60 are generally considered satisfying (p. 115)." The measure of parsimony and, more importantly, the measure of the balance between goodness-of-fit and parsimony that was utilized in this study was PNFI index. This measure provides a means for evaluating the usefulness and accuracy of the final path model for a given dependent variable.

Path Model for the Intention of Institutional Persistence

The dependent variable labeled in the analysis as "continue next semester" was interpreted as the intention of institutional persistence. When referring to this dependent variable, these terms will be used interchangeably. First, the correlation matrix for the collegiate experience variables and the intention of institutional persistence (i.e., variables x_{22}-x_{39} and variable x_{40}) was examined to determine significant correlations between these variables. Of the 18 correlations examined, ten of these were observed to be significant at the .05 level of significance. Those collegiate variables identified as having a significant relationship with the institutional persistence dependent variable were "family encouragement," "satisfaction with curriculum," "sense of belonging," "satisfaction with academic experience," "satisfaction with relationships," "confidence in decision to attend," "importance of degree," "confidence in choice of major," "confidence in ability," and "sense of entitlement." The observed significant correlations are shown in Table 4. As a first step in the construction of a reduced model for the

continue next semester dependent variable, only these relationships, identified as significant, were included as model paths between pre-collegiate variables and the dependent variable, intentions of institutional persistence. The first phase of model construction that results from these observations is shown in Figure 8.

Table 4

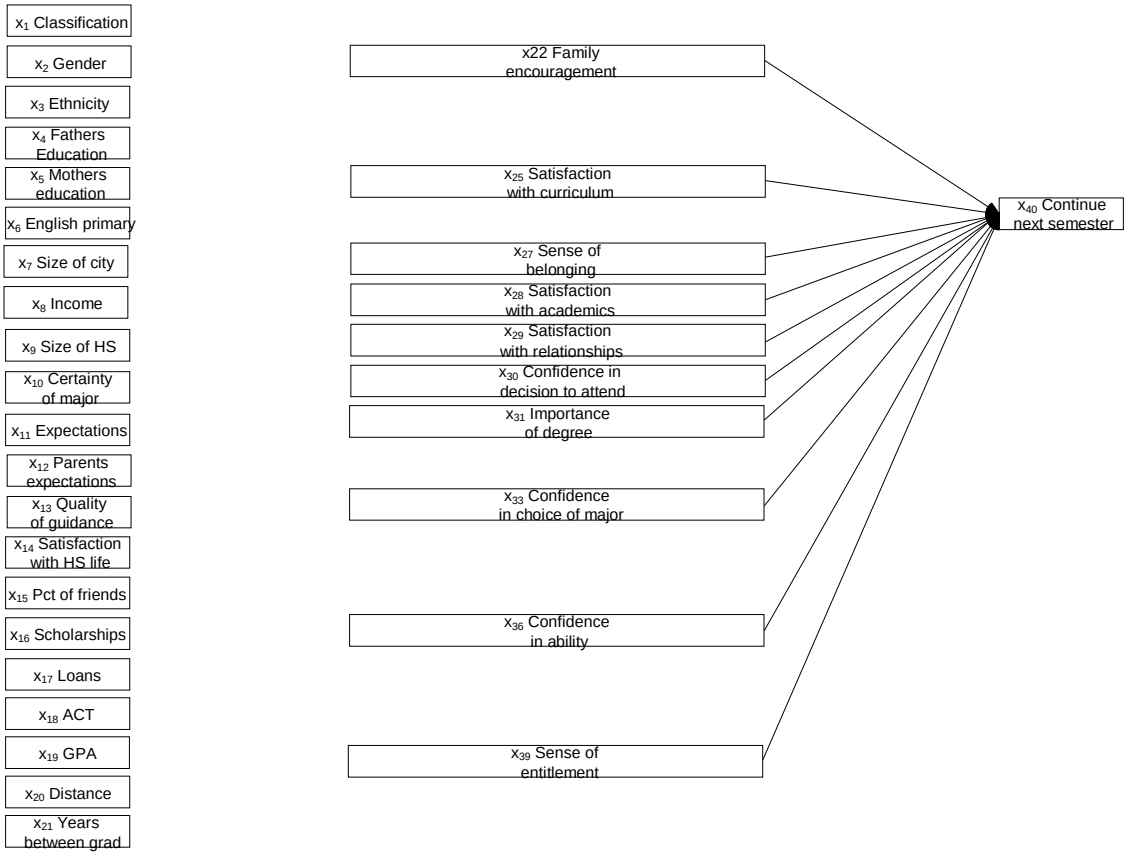
Correlations for Collegiate Variables for Intentions of Persistence at the Same Institution

Variable	Pearson Correlation	Sig. (2-tailed)
x_{22} Family encouragement	.305**	.000
x_{25} Satisfaction with curriculum	.288**	.000
x_{27} Sense of belonging	.289**	.000
x_{28} Satisfaction with academic experience	.288**	.000
x_{29} Satisfaction with relationships	.150**	.008
x_{30} Confidence decision to attend	.190**	.001
x_{31} Importance of degree	.212**	.000
x_{33} Confidence in choice of major	.137*	.015
x_{36} Confidence in ability	.211**	.000
x_{39} Sense of entitlement	.169**	.003

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 8. Pre-collegiate Variables for Intentions of Persistence at the Same Institution



As the second step in the model development process, the correlation matrix for all background or pre-collegiate experience variables, and collegiate experience variables (i.e., variables x_1-x_{21} and variables x_{22}-x_{39}) was examined to identify the observed significant correlations. Only those collegiate experience variables that were previously retained for use in the model, based upon their significance in the first step were considered. Of the correlations examined, 55 correlations were found to be significant at the .05 level. Those background and pre-collegiate experience variables identified as having a significant relationship with the retained collegiate experience variables were "gender," "ethnicity," "father's education," "mother's education," "English primary,"

"size of high school," "certainty of major," "expectations of attending college," "parents' expectations of attending college," "quality of guidance," "satisfaction with high school life," "pct of friends," "scholarships," "loans," "distance," and "years between graduation." These relationships are presented in Table 5. The reduced model for the institutional persistence dependent variable was constructed to include only those background and pre-collegiate variables that were observed to have a significant correlation with a retained collegiate variable. There were 16 background variables identified for inclusion in the model on the basis of correlations with collegiate variables. Likewise, only model paths that represented significant correlations between pre-collegiate and retained collegiate variables were identified for further inclusion in the model. The second phase of model construction that results from these observations is shown in Figure 9.

Table 5

Correlations for Pre-collegiate Variables for Intentions of Persistence at the Same Institution

Variable		Pearson Correlation	Sig. (2-tailed)
x_2 Gender	x_{28} Satisfaction with academic experience	.129*	.021
	x_{31} Importance of degree	.220**	.000
x_3 Ethnicity	x_{30} Confidence decision to attend	-.125*	.026
x_4 Fathers education	x_{22} Family encouragement	.112*	.047
x_5 Mothers education	x_{22} Family encouragement	.125*	.026
	x_{28} Satisfaction with academic experience	.145**	.009

	x_{36} Confidence in ability	.117*	.037
x_6 English primary	x_{33} Confidence in choice of major	.120*	.032
x_9 Size of hs	x_{36} Confidence in ability	.112*	.050
x_{10} Certainty of major	x_{25} Satisfaction with curriculum	.224**	.000
	x_{27} Sense of belonging	.212**	.000
	x_{28} Satisfaction with academic experience	.304**	.000
	x_{29} Satisfaction with relationships	.155**	.006
	x_{30} Confidence decision to attend	.226**	.000
	x_{31} Importance of degree	.150**	.007
	x_{33} Confidence in choice of major	.671**	.000
	x_{36} Confidence in ability	.295**	.000
	x_{39} Sense of entitlement	.177**	.002
x_{11} Expectations of attending college	x_{25} Satisfaction with curriculum	.204**	.000
	x_{27} Sense of belonging	.256**	.000
	x_{28} Satisfaction with academic experience	.250**	.000
	x_{29} Satisfaction with relationships	.272**	.000
	x_{30} Confidence decision to attend	.345**	.000
	x_{31} Importance of degree	.355**	.000
	x_{33} Confidence in choice of major	.183**	.001
	x_{36} Confidence in ability	.302**	.000
	x_{39} Sense of entitlement	.207**	.000
	x_{40} Continue next semester	.265**	.000
x_{12} Parents expectations of attending college	x_{22} Family encouragement	.321**	.000

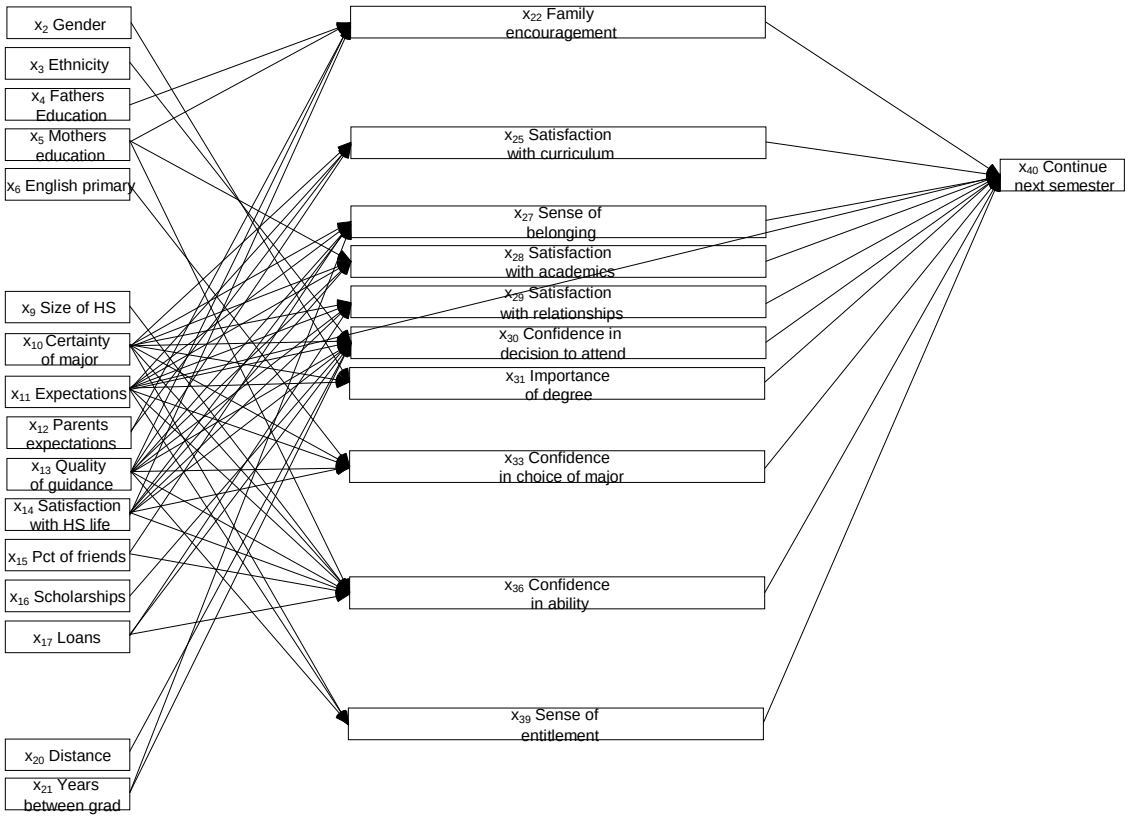
	x_{25} Satisfaction with curriculum	-.137*	.014
x_{13} Quality of guidance	x_{22} Family encouragement	.125*	.025
	x_{25} Satisfaction with curriculum	.131*	.019
	x_{27} Sense of belonging	.223**	.000
	x_{28} Satisfaction with academic experience	.222**	.000
	x_{29} Satisfaction with relationships	.209**	.000
	x_{30} Confidence decision to attend	.161**	.004
	x_{33} Confidence in choice of major	.200**	.000
	x_{36} Confidence in ability	.226**	.000
	x_{39} Sense of entitlement	.152**	.007
x_{14} Satisfaction with hs life	x_{22} Family encouragement	.131*	.020
	x_{27} Sense of belonging	.165**	.003
	x_{28} Satisfaction with academic experience	.171**	.002
	x_{29} Satisfaction with relationships	.146**	.010
	x_{30} Confidence decision to attend	.178**	.001
	x_{33} Confidence in choice of major	.123*	.028
	x_{36} Confidence in ability	.239**	.000
x_{15} Pct of friends	x_{27} Sense of belonging	.133*	.022
	x_{36} Confidence in ability	.115*	.049
x_{16} Scholarships	x_{30} Confidence decision to attend	-.119*	.048
x_{17} Loans	x_{29} Satisfaction with relationships	-.152*	.015
	x_{30} Confidence decision to attend	-.171**	.006
	x_{36} Confidence in ability	-.138*	.027

x_{20} Distance	x_{30} Confidence decision to attend	-.116*	.046
x_{21} Years between grad	x_{27} Sense of belonging	-.173**	.002
	x_{30} Confidence decision to attend	-.211**	.000

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 9. All Model Variables for Intentions of Persistence at the Same Institution



With the significant variables for inclusion in the reduced path model thus identified, attention was directed to the determination of significant correlations observed to exist between the collegiate experience variables. An examination of the correlation

matrix for these variables indicated that there were 39 such relationships at the .05 level of significance. These relationships are presented in Table 6. The inclusion of these paths resulted in the final path model shown in Figure 10. In this path diagram, a collegiate variable is considered a cause for any collegiate variable listed below it and an effect of any collegiate variable listed above it.

Table 6

Correlation Matrix for Collegiate Variables for Intentions of Persistence at the Same Institution

Variable	Statistic	x_{22} Family encouragement	x_{25} Satisfaction with curriculum	x_{27} Sense of belonging	x_{28} Satisfaction with academic experience	x_{29} Satisfaction with relationships
x_{22} Family encouragement	Pearson Correlation			.203**	.202**	.212**
	Sig. (2-tailed)			.000	.000	.000
x_{25} Satisfaction with curriculum	Pearson Correlation			.416**	.670**	.299**
	Sig. (2-tailed)			.000	.000	.000
x_{27} Sense of belonging	Pearson Correlation	.203**	.416**		.627**	.685**
	Sig. (2-tailed)	.000	.000		.000	.000
x_{28} Satisfaction with academic experience	Pearson Correlation	.202**	.670**	.627**		.469**
	Sig. (2-tailed)	.000	.000	.000		.000
x_{29} Satisfaction with relationships	Pearson Correlation	.212**	.299**	.685**	.469**	
	Sig. (2-tailed)	.000	.000	.000	.000	
x_{30} Confidence decision to attend	Pearson Correlation		.356**	.392**	.420**	.339**
	Sig. (2-tailed)		.000	.000	.000	.000

x_{31} Importance of degree	Pearson Correlation		.253**	.196**	.335**	.193**
	Sig. (2-tailed)		.000	.000	.000	.001
x_{33} Confidence in choice of major	Pearson Correlation		.354**	.268**	.335**	.212**
	Sig. (2-tailed)		.000	.000	.000	.000
x_{36} Confidence in ability	Pearson Correlation		.458**	.317**	.465**	.252**
	Sig. (2-tailed)		.000	.000	.000	.000
x_{39} Sense of entitlement	Pearson Correlation	.180**	.328**	.453**	.429**	.338**
	Sig. (2-tailed)	.001	.000	.000	.000	.000

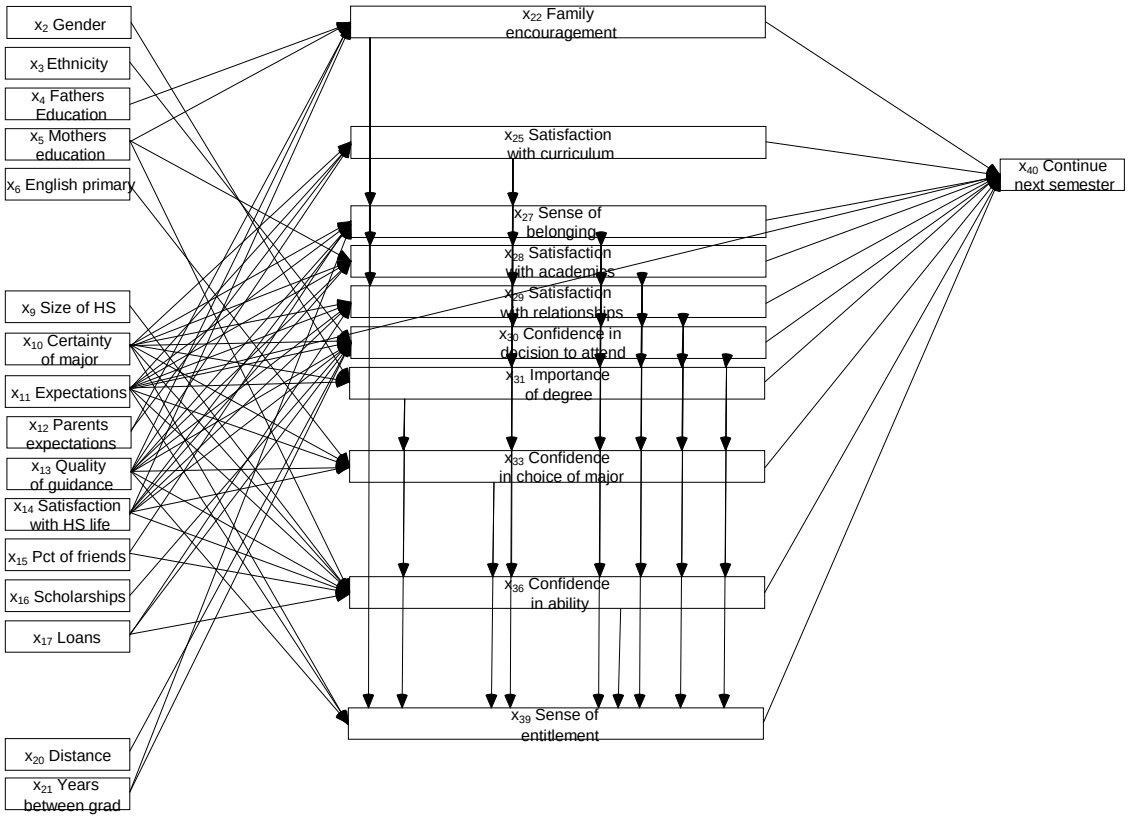
		x_{30} Confidence decision to attend	x_{31} Importance of degree	x_{33} Confidence in choice	x_{36} Confidence in ability	x_{39} Sense of entitlement
x_{22} Family encouragement	Pearson Correlation					.180**
	Sig. (2-tailed)					.001
x_{25} Satisfaction with curriculum	Pearson Correlation	.356**	.253**	.354**	.458**	.328**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
x_{27} Sense of belonging	Pearson Correlation	.392**	.196**	.268**	.317**	.453**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
x_{28} Satisfaction with academic experience	Pearson Correlation	.420**	.335**	.335**	.465**	.429**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
x_{29} Satisfaction with relationships	Pearson Correlation	.339**	.193**	.212**	.252**	.338**
	Sig. (2-tailed)	.000	.001	.000	.000	.000
x_{30} Confidence decision to attend	Pearson Correlation		.460**	.282**	.457**	.307**
	Sig. (2-tailed)		.000	.000	.000	.000
x_{31} Importance of degree	Pearson Correlation	.460**		.225**	.354**	.224**

	Sig. (2-tailed)	.000		.000	.000	.000
x_{33} Confidence in choice of major	Pearson Correlation	.282**	.225**		.404**	.207**
	Sig. (2-tailed)	.000	.000		.000	.000
x_{36} Confidence in ability	Pearson Correlation	.457**	.354**	.404**		.279**
	Sig. (2-tailed)	.000	.000	.000		.000
x_{39} Sense of entitlement	Pearson Correlation	.307**	.224**	.207**	.279**	
	Sig. (2-tailed)	.000	.000	.000	.000	

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 10. Initial Path Model for Intentions of Persistence at the Same Institution



As the last step in developing the model for intentions of institutional persistence, correlations between background and pre-collegiate experience variables were examined to identify those relationships that were significant at the .05 level. The significant correlations between exogenous variables, variables x_1-x_{22}, are shown in Table 7. Significant paths between these independent variables were included, resulting in the final path model for intentions of institutional persistence shown in Figure 11.

Table 7

Covariances for Intentions of Persistence at the Same Institution

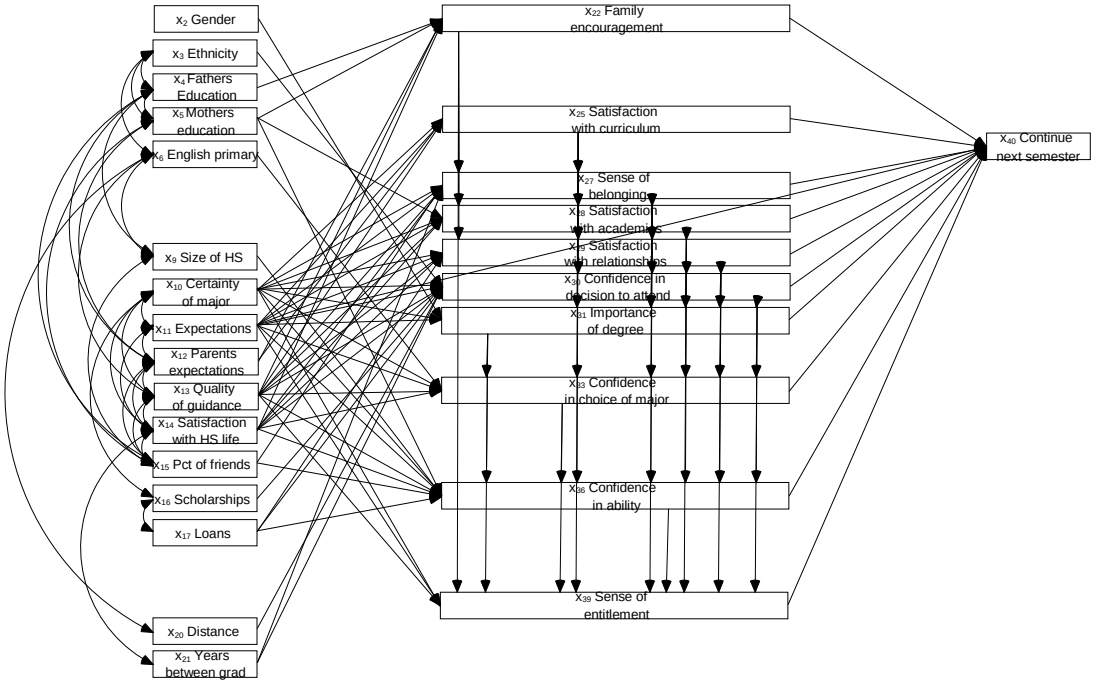
Variable	Variable	Pearson Correlation	Sig. (2-tailed)
x_3 Ethnicity	x_4 Fathers education	-.144**	.006
	x_5 Mothers education	-.196**	.000
	x_6 English primary	.396**	.000
x_4 Fathers education	x_5 Mothers education	.447**	.000
	x_9 Size of hs	.158**	.003
	x_{12} Parents expectations of attending college	.180**	.001
	x_{15} Pct of friends	.239**	.000
x_5 Mothers education	x_{12} Parents expectations of attending college	.164**	.002
	x_{15} Pct of friends	.225**	.000
x_6 English primary	x_9 Size of hs	.262**	.000
	x_{13} Quality of guidance	.116*	.034
	x_{20} Distance	.171**	.003
x_9 Size of hs	x_{15} Pct of friends	.148*	.010

x_{10} Certainty of major	x_{11} Expectations of attending college	.142**	.009
	x_{13} Quality of guidance	.236**	.000
	x_{14} Satisfaction with hs life	.152**	.005
	x_{16} Scholarships	-.145*	.013
x_{11} Expectations of attending college	x_{12} Parents expectations of attending college	.300**	.000
	x_{14} Satisfaction with hs life	.137*	.012
x_{12} Parents expectations of attending college	x_{13} Quality of guidance	.238**	.000
	x_{14} Satisfaction with hs life	.210**	.000
	x_{15} Pct of friends	.327**	.000
x_{13} Quality of guidance	x_{14} Satisfaction with hs life	.454**	.000
	x_{15} Pct of friends	.143*	.012
x_{14} Satisfaction with hs life	x_{15} Pct of friends	.253**	.000
	x_{12} Years between grad	-.123*	.026
x_{16} Scholarships	x_{17} Loans	.704**	.000

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 11. Final Path Model for Intentions of Persistence at the Same Institution



The original fully recursive model which served as the starting point for the model reduction process consisted of 45 variables and 1,035 paths. After reduction, the final path model consisted of 27 variables and 76 paths between variables. It is this resultant causal model of Figure 11 that was evaluated using the methods of path analysis. The decomposition of effects for each variable of the model into total effects, direct effects, and indirect effects on the dependent variable are summarized in Table 8.

Table 8

Decomposition of Effects for Intentions of Persistence at the Same Institution

Variable	Total Effect	Direct Effect	Indirect Effect
x_{14} Satisfaction with hs life	0.02	0.00	0.02

x_{13} Quality of guidance	0.04	0.00	0.04
x_{12} Parents expectations of attending college	0.03	0.00	0.03
x_{11} Expectations of attending college	0.26	0.19	0.07
x_{10} Certainty of major	0.03	0.00	0.03
x_5 Mothers education	0.02	0.00	0.02
x_4 Fathers education	0.01	0.00	0.01
x_{21} Years between grad	-0.02	0.00	-0.02
x_{15} Pct of friends	0.01	0.00	0.01
x_{25} Satisfaction with curriculum	0.22	0.19	0.04
x_{22} Family encouragement	0.28	0.28	0.00
x_{27} Sense of belonging	0.12	0.25	-0.13
x_{17} Loans	0.01	0.00	0.01
x_{28} Satisfaction with academic experience	-0.01	-0.02	0.01
x_{20} Distance	0.00	0.00	0.00
x_{16} Scholarships	0.00	0.00	0.00
x_{29} Satisfaction with relationships	-0.17	-0.17	0.00
x_3 Ethnicity	0.00	0.00	0.00
x_{30} Confidence decision to attend	-0.01	-0.04	0.03
x_2 Gender	0.01	0.00	0.01
x_6 English primary	0.00	0.00	0.00
x_{31} Importance of degree	0.08	0.08	0.00
x_9 Size of hs	0.01	0.00	0.01
x_{33} Confidence in choice of major	-0.02	-0.03	0.01

x_{36} Confidence in ability	0.04	0.05	0.00
x_{39} Sense of entitlement	-0.04	-0.04	0.00

A path analysis was performed on the final path model in order to evaluate the goodness-of-fit for the identified path model for the dependent variable of "intentions to continue next semester",i.e., the degree to which the model was reflective of the observed data. Several measures of goodness-of-fit were utilized in making this evaluation.

First, the Normed Fit Index, or NFI, was examined. An NFI index of .95 or greater was considered to be a good fit, that the model accurately reflected the observed data. The NFI for the final path model was 0.88, indicating that the model was a good fit. Second, the Parsimony Normed Fit Index, or PNFI, was examined. A PNFI index of .60 or greater was considered to be a good fit, that the model accurately reflected the observed data and represented a significantly reduced model. The PNFI for the final path model was 0.512, indicating that the model was a good fit. Taken together, these measures of goodness-of-fit and simplicity indicated that the derived path model for the dependent variable "intentions of institutional persistence" was high, i.e., the model was a good fit.

Path Model for the Intention of Immediate Transfer

The dependent variable labeled in the analysis as "transfer next semester" was interpreted as the intention of immediate transfer. When referring to this dependent variable, these terms will be used interchangeably. Examination of the correlation matrix for the collegiate experience variables and the intention of immediate transfer indicated that 8 of 18 of these variables were significant at the .05 level. Those collegiate variables

identified as having a significant relationship with the "transfer next semester" dependent variable were "family encouragement," "satisfaction with curriculum," "sense of belonging," "satisfaction with academic experience," "satisfaction with relationships," "confidence in choice of major," "confidence in ability," and "sense of entitlement." The observed significant correlations are shown in Table 9. In the construction of a reduced model for the immediate transfer dependent variable, only these relationships, identified as significant, were included as model paths between pre-collegiate variables and the dependent variable, "intentions to transfer next semester". The first phase of model construction that results from these observations is shown in Figure 12.

Table 9

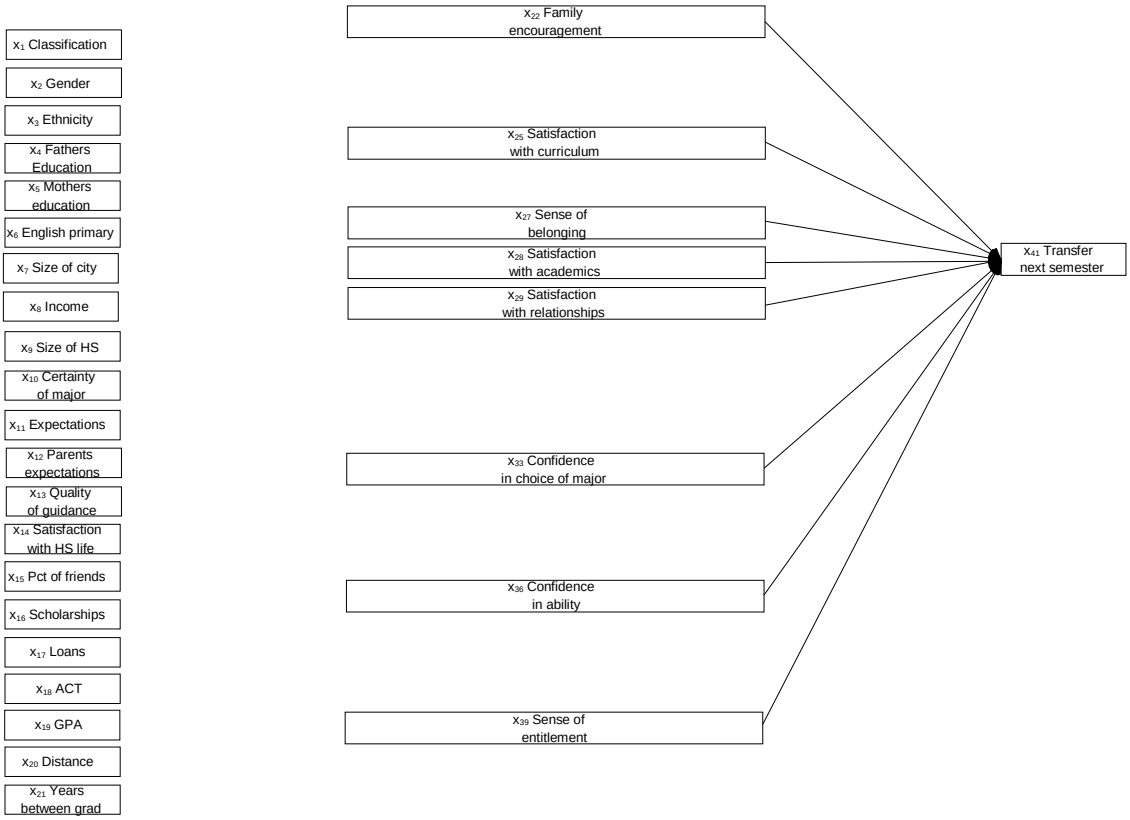
Correlations for Collegiate Variables for Intentions of Persistence at a Different Institution

Variable	Pearson Correlation	Sig. (2-tailed)
x_{22} Family encouragement	-.260**	.000
x_{25} Satisfaction with curriculum	-.238**	.000
x_{27} Sense of belonging	-.278**	.000
x_{28} Satisfaction with academic experience	-.258**	.000
x_{29} Satisfaction with relationships	-.148**	.009
x_{33} Confidence in choice of major	-.150**	.008
x_{36} Confidence in ability	-.128*	.024
x_{39} Sense of entitlement	-.125*	.028

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 12. Pre-collegiate Variables for Intentions of Persistence at a Different Institution



Next, the correlation matrix for all background or pre-collegiate experience variables, and collegiate experience variables were examined to identify the observed significant correlations. Again, only those collegiate experience variables that were previously retained for use in the model were considered. Of the correlations examined, 42 correlations were found to be significant at the .05 level. Those background and pre-collegiate experience variables identified as having a significant relationship with the retained collegiate experience variables were “father’s education,” “mother’s education,” “English primary,” “size of high school,” “certainty of major,” “expectations of attending college,” “parents’ expectations of attending college,” “quality of guidance,” “satisfaction

with high school life," "pct of friends," "loans," and "years between graduation." These relationships are presented in Table 10. The reduced model for the "immediate transfer" dependent variable was constructed to include only those background and pre-collegiate variables that were observed to have a significant correlation with a retained collegiate variable. There were 12 background and pre collegiate variables identified for inclusion in the model on this basis. Likewise, only model paths that represented significant correlations between pre-collegiate and retained collegiate variables were identified for further inclusion in the model. The intermediate model construction that resulted is shown in Figure 13.

Table 10

Correlations for Pre-collegiate Variables for Intentions of Persistence at a Different Institution

Variable	Variable	Pearson Correlation	Sig. (2-tailed)
x_4 Fathers education	x_{22} Family encouragement	.112*	.047
x_5 Mothers education	x_{22} Family encouragement	.125*	.026
	x_{28} Satisfaction with academic experience	.145**	.009
	x_{36} Confidence in ability	.117*	.037
x_6 English primary	x_{33} Confidence in choice of major	.120*	.032
x_9 Size of hs	x_{36} Confidence in ability	.112*	.050
x_{10} Certainty of major	x_{25} Satisfaction with curriculum	.224**	.000
	x_{27} Sense of belonging	.212**	.000
	x_{28} Satisfaction with academic experience	.304**	.000
	x_{29} Satisfaction with relationships	.155**	.006

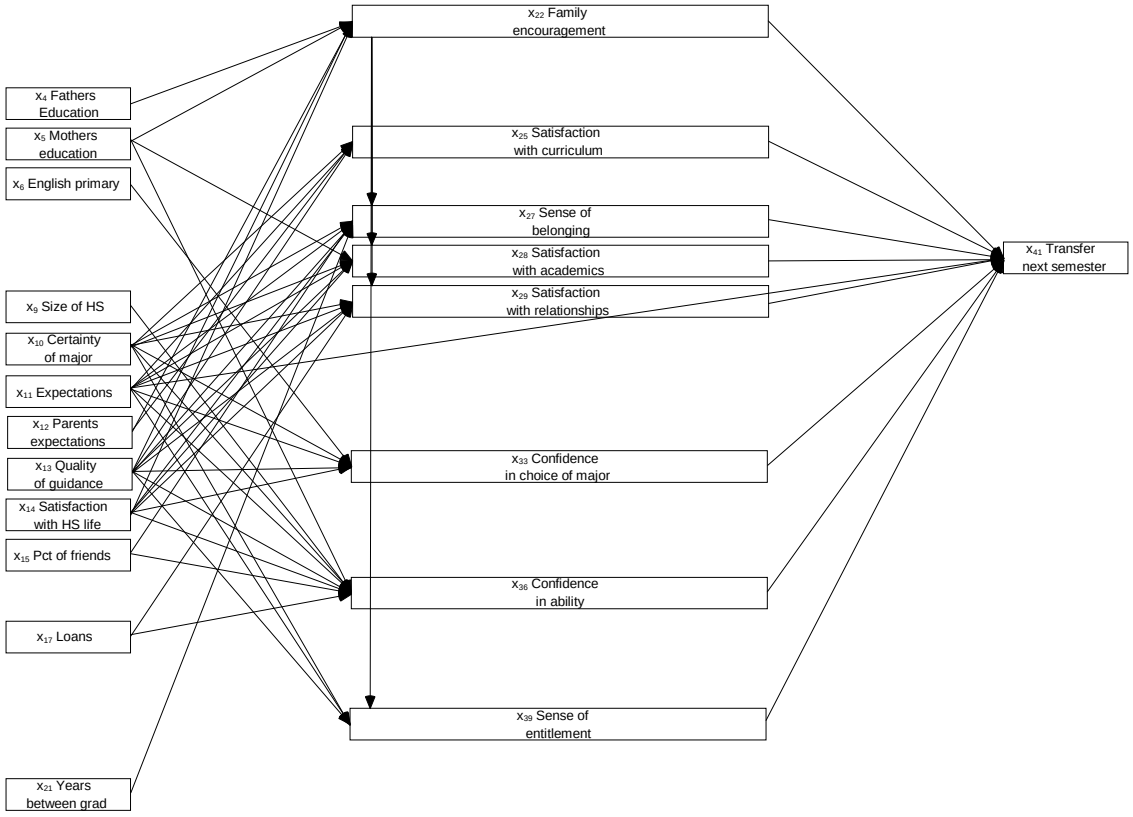
	x_{33} Confidence in choice of major	.671**	.000
	x_{36} Confidence in ability	.295**	.000
	x_{39} Sense of entitlement	.177**	.002
x_{11} Expectations of attending college	x_{25} Satisfaction with curriculum	.204**	.000
	x_{27} Sense of belonging	.256**	.000
	x_{28} Satisfaction with academic experience	.250**	.000
	x_{29} Satisfaction with relationships	.272**	.000
	x_{33} Confidence in choice of major	.183**	.001
	x_{36} Confidence in ability	.302**	.000
	x_{39} Sense of entitlement	.207**	.000
	x_{41} Transfer next semester	-.149**	.009
x_{12} Parents expectations of attending college	x_{22} Family encouragement	.321**	.000
	x_{25} Satisfaction with curriculum	-.137*	.014
x_{13} Quality of guidance	x_{22} Family encouragement	.125*	.025
	x_{25} Satisfaction with curriculum	.131*	.019
	x_{27} Sense of belonging	.223**	.000
	x_{28} Satisfaction with academic experience	.222**	.000
	x_{29} Satisfaction with relationships	.209**	.000
	x_{33} Confidence in choice of major	.200**	.000
	x_{36} Confidence in ability	.226**	.000
	x_{39} Sense of entitlement	.152**	.007
x_{14} Satisfaction with hs life	x_{14} Satisfaction with hs life	.131*	.020
	x_{27} Sense of belonging	.165**	.003

	x_{28} Satisfaction with academic experience	.171**	.002
	x_{29} Satisfaction with relationships	.146**	.010
	x_{33} Confidence in choice of major	.123*	.028
	x_{36} Confidence in ability	.239**	.000
x_{15} Pct of friends	x_{27} Sense of belonging	.133*	.022
	x_{36} Confidence in ability	.115*	.049
x_{17} Loans	x_{29} Satisfaction with relationships	-.152*	.015
	x_{36} Confidence in ability	-.138*	.027
x_{21} Years between grad	x_{27} Sense of belonging	-.173**	.002

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 13. All Model Variables for Intentions of Persistence at a Different Institution



This reduced path model was then modified to include significant correlations observed to exist between the collegiate experience variables. An examination of the correlation matrix for these variables indicated that there were 25 relationships at the .05 level of significance. These relationships are presented in Table 11. The inclusion of these paths resulted in the final path model shown in Figure 14.

Table 11

Correlation Matrix for Collegiate Variables for Intentions of Persistence at a Different Institution

Variable	Statistic	x_{22} Family encouragement	x_{25} Satisfaction with curriculum	x_{27} Sense of belonging	x_{28} Satisfaction with academic experience
x_{22} Family encouragement	Pearson Correlation			.203**	.202**
	Sig. (2-tailed)			.000	.000
x_{25} Satisfaction with curriculum	Pearson Correlation			.416**	.670**
	Sig. (2-tailed)			.000	.000
x_{27} Sense of belonging	Pearson Correlation	.203**	.416**		.627**
	Sig. (2-tailed)	.000	.000		.000
x_{28} Satisfaction with academic experience	Pearson Correlation	.202**	.670**	.627**	
	Sig. (2-tailed)	.000	.000	.000	
x_{29} Satisfaction with relationships	Pearson Correlation	.212**	.299**	.685**	.469**
	Sig. (2-tailed)	.000	.000	.000	.000
x_{33} Confidence in choice of major	Pearson Correlation		.354**	.268**	.335**
	Sig. (2-tailed)		.000	.000	.000
x_{36} Confidence in ability	Pearson Correlation		.458**	.317**	.465**
	Sig. (2-tailed)		.000	.000	.000

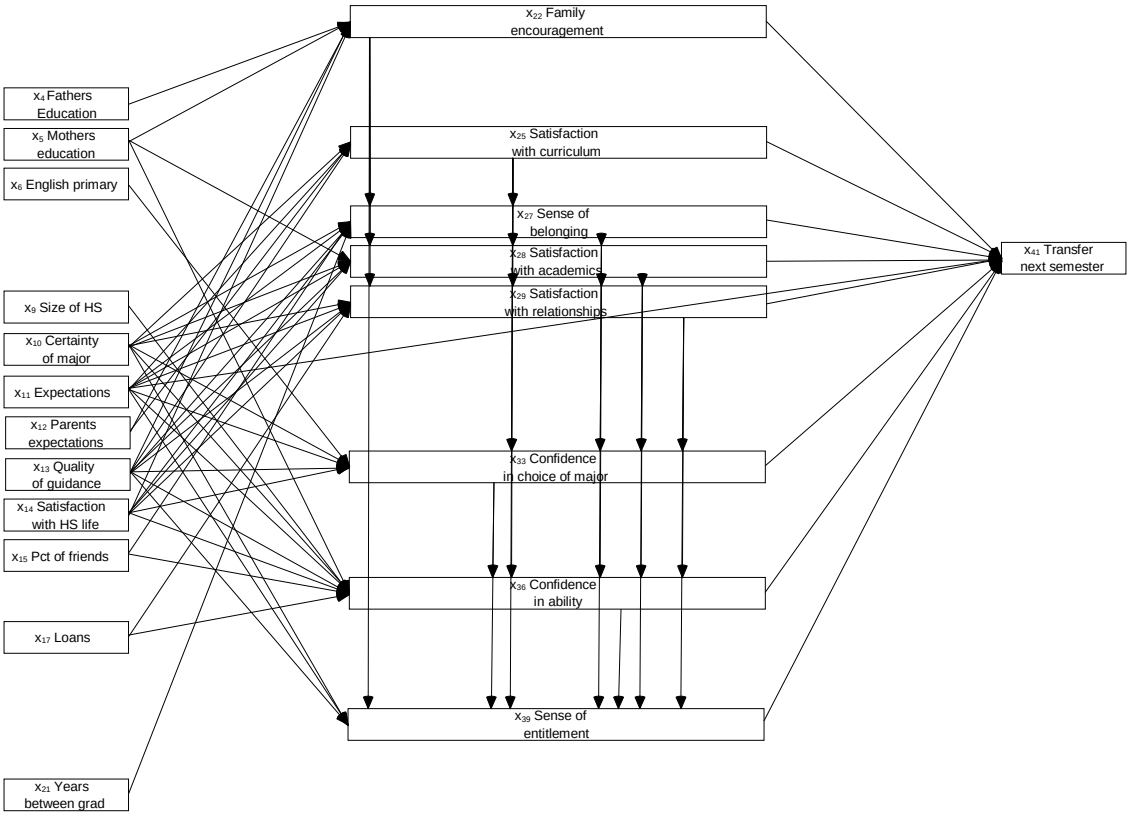
x_{39} Sense of entitlement	Pearson Correlation	.180**	.328**	.453**	.429**
	Sig. (2-tailed)	.001	.000	.000	.000

		x_{29} Satisfaction with relationships	x_{33} Confidence in choice of major	x_{36} Confidence in ability	x_{39} Sense of entitlement
x_{22} Family encouragement	Pearson Correlation	.212**			.180**
	Sig. (2-tailed)	.000			.001
x_{25} Satisfaction with curriculum	Pearson Correlation	.299**	.354**	.458**	.328**
	Sig. (2-tailed)	.000	.000	.000	.000
x_{27} Sense of belonging	Pearson Correlation	.685**	.268**	.317**	.453**
	Sig. (2-tailed)	.000	.000	.000	.000
x_{28} Satisfaction with academic experience	Pearson Correlation	.469**	.335**	.465**	.429**
	Sig. (2-tailed)	.000	.000	.000	.000
x_{29} Satisfaction with relationships	Pearson Correlation		.212**	.252**	.338**
	Sig. (2-tailed)		.000	.000	.000
x_{33} Confidence in choice of major	Pearson Correlation	.212**		.404**	.207**
	Sig. (2-tailed)	.000		.000	.000
x_{36} Confidence in ability	Pearson Correlation	.252**	.404**		.279**
	Sig. (2-tailed)	.000	.000		.000
x_{39} Sense of entitlement	Pearson Correlation	.338**	.207**	.279**	
	Sig. (2-tailed)	.000	.000	.000	

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 14. Initial Path Model for Intentions of Persistence at a Different Institution



Finally, completing the model for intentions of immediate transfer, correlations between background and pre-collegiate experience variables were examined to identify those relationships that were significant at the .05 level. The significant correlations between these variables, variables x_1-x_{22}, are shown in Table 12. Paths between these independent variables that were shown to be significant were included, resulting in the final path model for intentions of immediate transfer shown in Figure 15.

Table 12

Covariances for Intentions of Persistence at a Different Institution

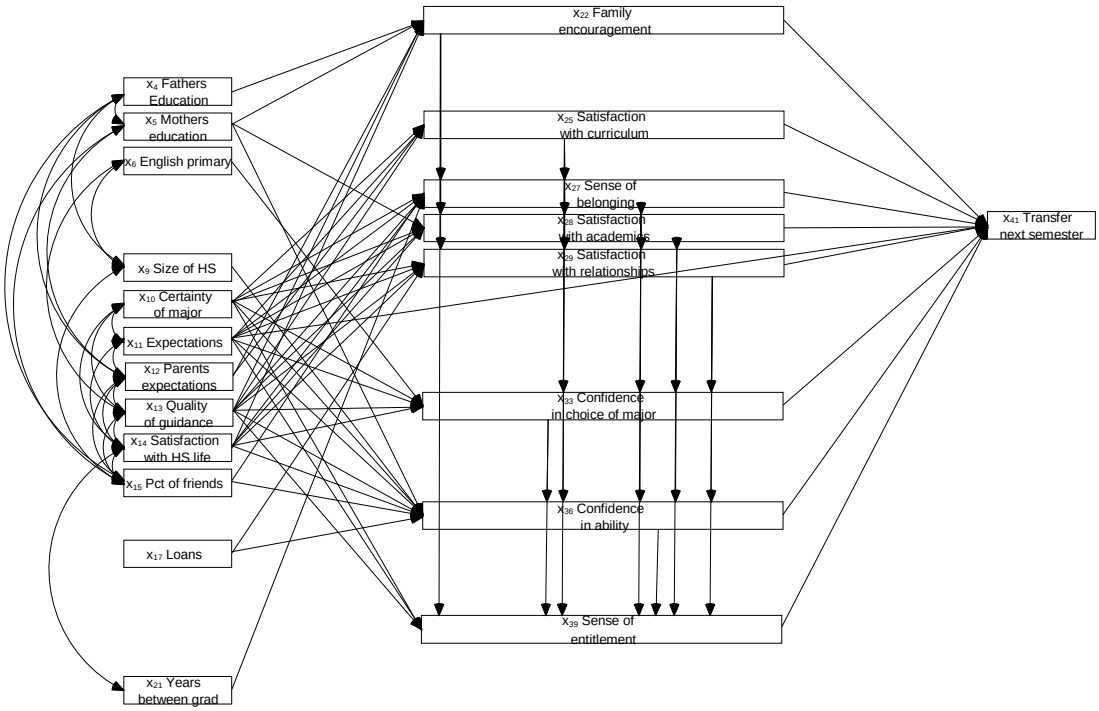
Variable	Variable	Pearson Correlation	Sig. (2-tailed)
x_4 Fathers education	x_5 Mothers education	.447**	.000
	x_9 Size of hs	.158**	.003
	x_{12} Parents expectations of attending college	.180**	.001
	x_{15} Pct of friends	.239**	.000
x_5 Mothers education	x_{12} Parents expectations of attending college	.164**	.002
	x_{15} Pct of friends	.225**	.000
x_6 English primary	x_9 Size of hs	.262**	.000
	x_{13} Quality of guidance	.116*	.034
x_9 Size of hs	x_{15} Pct of friends	.148*	.010
x_{10} Certainty of major	x_{11} Expectations of attending college	.142**	.009
	x_{13} Quality of guidance	.236**	.000
	x_{14} Satisfaction with hs life	.152**	.005
x_{11} Expectations of attending college	x_{12} Parents expectations of attending college	.300**	.000
	x_{14} Satisfaction with hs life	.137*	.012
x_{12} Parents expectations of attending college	x_{13} Quality of guidance	.238**	.000
	x_{14} Satisfaction with hs life	.210**	.000
	x_{15} Pct of friends	.327**	.000
x_{13} Quality of guidance	x_{14} Satisfaction with hs life	.454**	.000
	x_{15} Pct of friends	.143*	.012
x_{14} Satisfaction with hs life	x_{15} Pct of friends	.253**	.000

	x_{21} Years between grad	-.123*	.026

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 15. Final Path Model for Intentions of Persistence at a Different Institution



After reduction, the final path model consisted of 21 variables and 66 paths between variables. Figure 15 shows the path model for the dependent variable "immediate transfer" that was evaluated using path analysis. The decomposition of effects into total effects, direct effects, and indirect effects on the dependent variable is shown in Table 13. Path analysis was performed on the model in order to evaluate the goodness-of-fit for the constructed model.

Table 13

Decomposition of Effects for Intentions of Persistence at a Different Institution

Variable	Total Effect	Direct Effect	Indirect Effect
x_{14} Satisfaction with hs life	-0.01	0.00	-0.01
x_{13} Quality of guidance	-0.04	0.00	-0.04
x_{12} Parents expectations of attending college	-0.02	0.00	-0.02
x_{11} Expectations of attending college	-0.14	-0.09	-0.05
x_{10} Certainty of major	-0.07	0.00	-0.07
x_{5} Mothers education	-0.01	0.00	-0.01
x_{4} Fathers education	-0.01	0.00	-0.01
x_{21} Years between grad	0.02	0.00	0.02
x_{15} Pct of friends	-0.01	0.00	-0.01
x_{25} Satisfaction with curriculum	-0.19	-0.13	-0.06
x_{22} Family encouragement	-0.24	-0.23	-0.01
x_{27} Sense of belonging	-0.16	-0.25	0.09
x_{17} Loans	-0.01	0.00	-0.01
x_{28} Satisfaction with academic experience	-0.01	-0.03	0.02
x_{29} Satisfaction with relationships	0.13	0.13	0.00
x_{6} English primary	0.00	0.00	0.00
x_{9} Size of hs	0.01	0.00	0.01
x_{33} Confidence in choice of major	-0.04	-0.05	0.01
x_{36} Confidence in ability	0.03	0.03	0.00
x_{39} Sense of entitlement	0.06	0.06	0.00

The analysis resulted in an NFI and PNFI for the final path model of .907, and .447 respectively, indicating that the model was a good fit. Again, complete results of the analysis can be found in Appendix D. In sum, these measures indicated that the derived path model for the dependent variable "intentions of immediate transfer" was a good fit and accurately represented the observed data.

Path Model for the Intention to Stop Out

The dependent variable labeled in the analysis as "continue not next semester" was interpreted as the intention to stop out. When referring to this dependent variable, these terms will be used interchangeably. Proceeding as before with model reduction and the development of a model for the dependent variable "continue not next semester", correlations for the collegiate experience variables and the "intention to continue not next semester" were examined. These indicated that only two of the 18 collegiate variables were significant at the .05 level. Those collegiate variables identified as having a significant relationship with the stop out dependent variable were difficulty in transferring and family obligations. The observed significant correlations are shown in Table 14. The intermediate reduced model for the stop out dependent variable, containing only these relationships as model paths between pre-collegiate variables and the dependent variable is shown in Figure 16.

Table 14

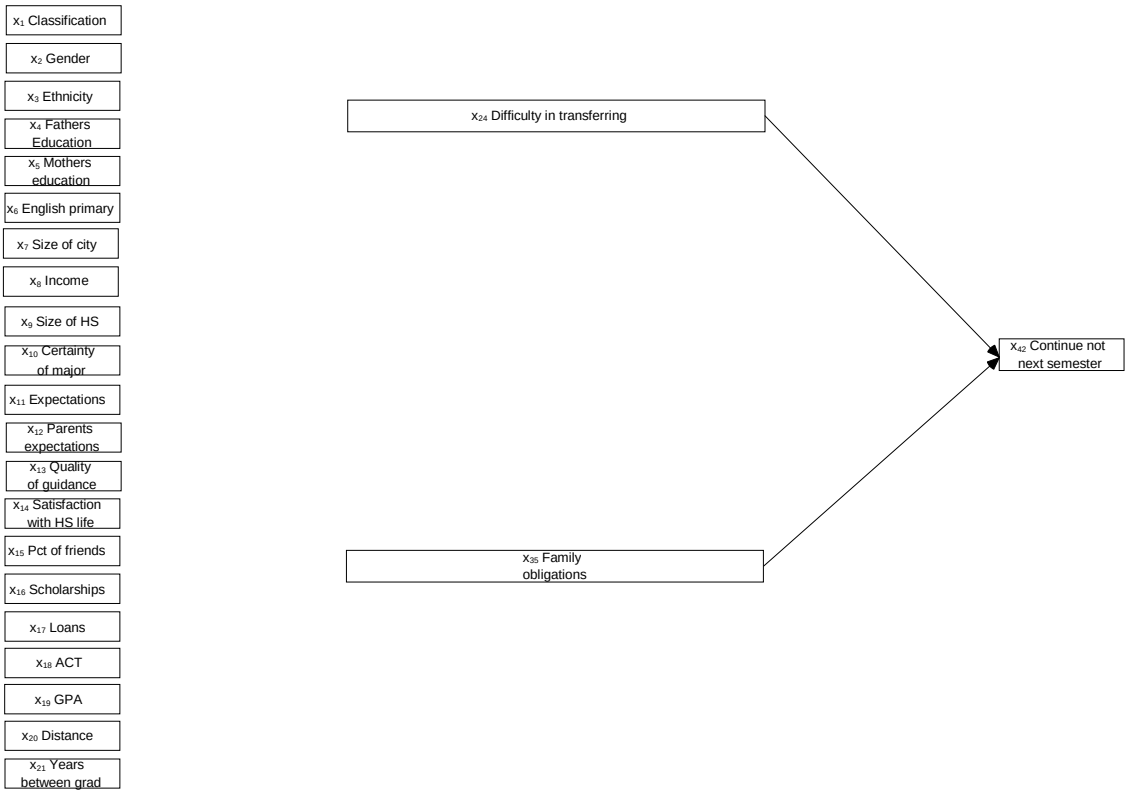
Correlations for Collegiate Variables for Intentions of Stopping Out and Returning to the Same Institution

Variable	Pearson Correlation	Sig. (2-tailed)
x_{24} Difficulty in transferring	.119*	.049
x_{35} Family obligations	.206**	.000

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 16. Pre-collegiate Variables for Intentions of Stopping Out and Returning to the Same Institution



Significant correlations for all background or pre-collegiate experience variables, and collegiate experience variables were identified. Again, only those collegiate experience variables that were previously retained for use in the model were considered. Of these, only seven correlations were found to be significant at the .05 level. Those background and pre-collegiate experience variables identified as having a significant relationship with the retained collegiate experience variables were "mother's education," "English primary," "expectations of attending college," "quality of guidance," "ACT," and "distance." These relationships are presented in Table 15. The reduced model for the stop out dependent variable was constructed to include only these background and pre-collegiate variables. There were six background and pre collegiate variables identified for inclusion in the model on this basis. Likewise, only model paths that represented significant correlations between pre-collegiate and retained collegiate variables were identified for further inclusion in the model. The intermediate model construction that resulted is shown in Figure 17.

Table 15

Correlations for Pre-collegiate Variables for Intentions of Stopping Out and Returning to Same Institution

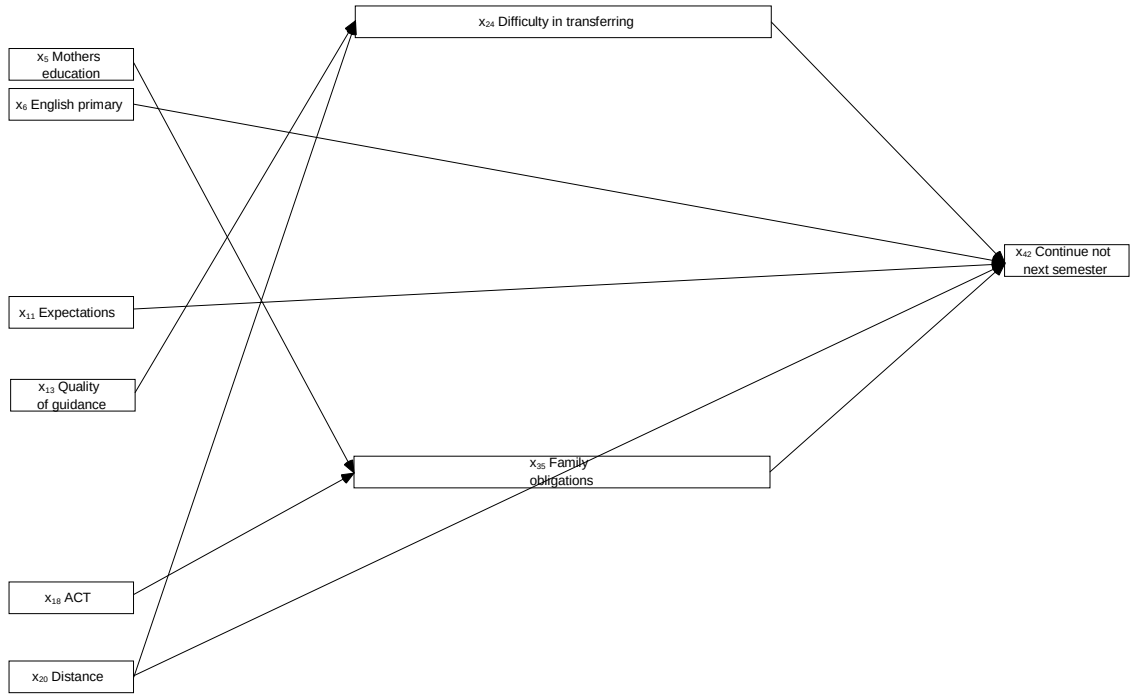
Variable	Variable	Pearson Correlation	Sig. (2-tailed)
x_5 Mothers education	x_{35} Family obligations	-.150**	.008
x_6 English primary	x_{42} Continue not next semester	.185**	.001
x_{11} Expectations of attending college	x_{42} Continue not next semester	-.125*	.029
x_{13} Quality of guidance	x_{24} Difficulty in transferring	-.142*	.016
x_{18} ACT	x_{35} Family obligations	-.137*	.023

x_{20} Distance	x_{24} Difficulty in transferring	.163**	.008
	x_{42} Continue not next semester	.134*	.024

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 17. All Model Variables for Intentions of Stopping Out and Returning to the Same Institution



The model was then modified to include significant correlations observed to exist between the collegiate experience variables. The correlation matrix for these variables indicated that there was one relationship at the .05 level of significance. These

relationships are presented in Table 16. The inclusion of these paths resulted in the final path model shown in Figure 18.

Table 16

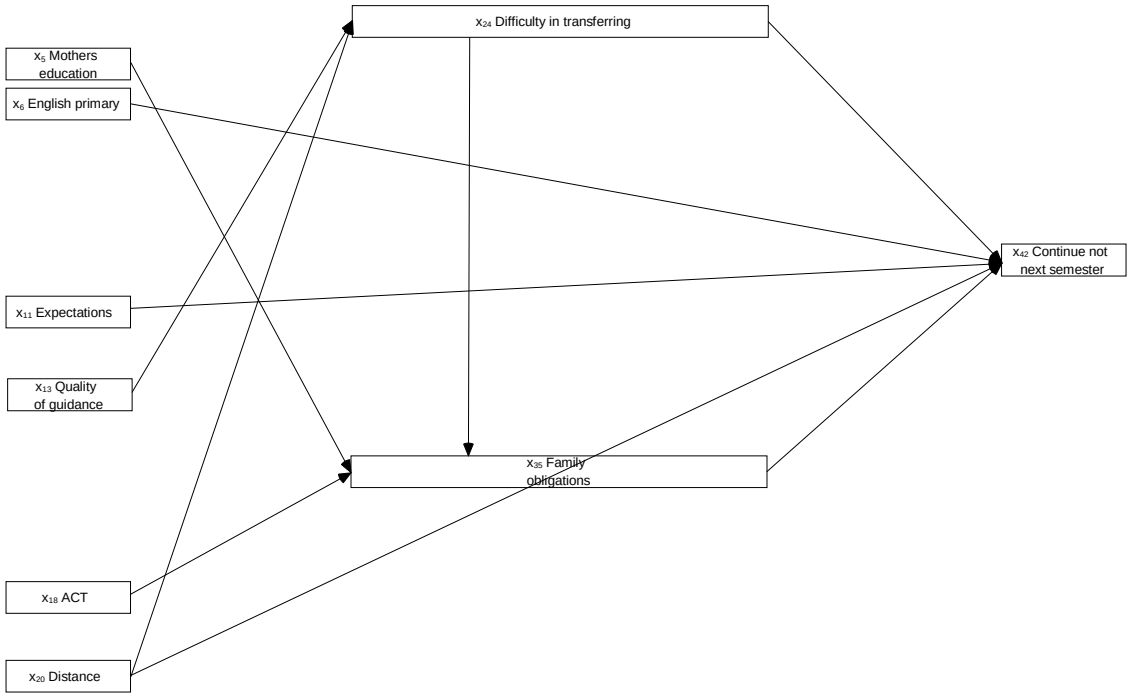
Correlation Matrix for Collegiate Variables for Intentions of Stopping Out and Returning to the Same Institution

Variable	Statistic	x_{24} Difficulty in transferring	x_{35} Family obligations
x_{24} Difficulty in transferring	Pearson Correlation		.242**
	Sig. (2-tailed)		.000
x_{35} Family obligations	Pearson Correlation	.242**	
	Sig. (2-tailed)	.000	

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 18. Initial Path Model for Intentions of Stopping Out and Returning to the Same Institution



Completing the model for intentions of stopping out, relationships exhibiting significant correlations between background and pre-collegiate experience variables were included. Table 17 identifies the relationships between exogenous variables that were found to be significant. Figure 19 shows the final path model for intentions of stopping out.

Table 17

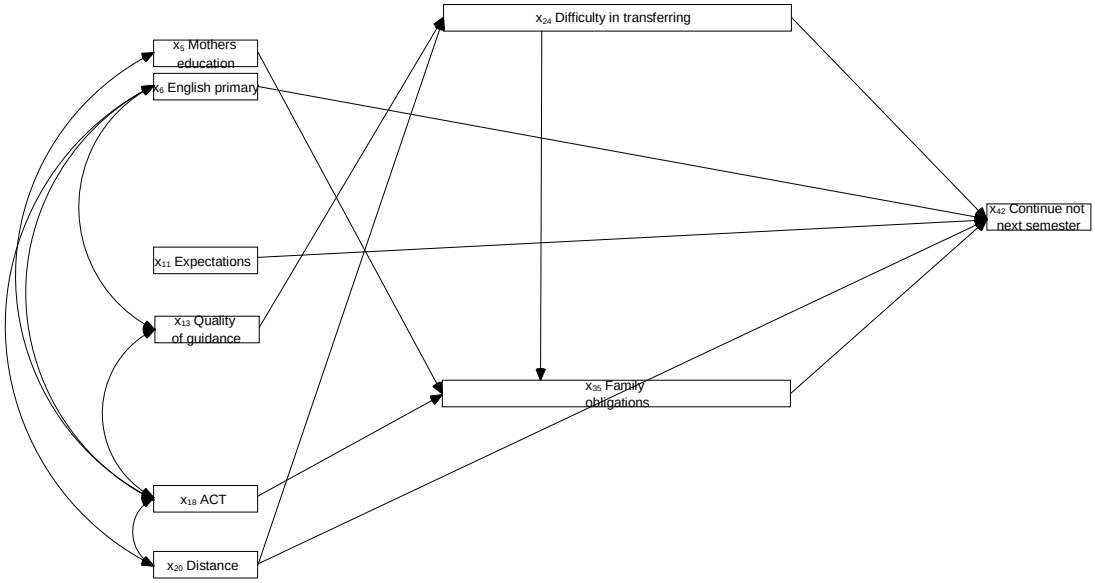
Covariances for Intentions of Stopping Out and Returning To the Same Institution

Variable	Variable	Pearson Correlation	Sig. (2-tailed)
x_5 .Mothers education	x_{18} ACT	.255**	.000
x_6 English primary	x_{13} Quality of guidance	.116*	.034
	x_{18} ACT	-.121*	.038
	x_{20} Distance	.171**	.003
x_{13} Quality of guidance	x_{18} ACT	.153**	.008
x_{18} ACT	x_{20} Distance	.205**	.001

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 19. Final Path Model for Intentions of Stopping Out and Returning to the Same Institution



After reduction, the final path model for this dependent variable consisted of nine variables and ten paths between variables. Figure 19 shows the path model for the dependent variable stop out that was evaluated using path analysis. Total effects, direct effects, and indirect effects for each variable in the final path model are presented in Table 18.

Table 18

Decomposition of Effects for Intentions of Stopping Out and Returning to the Same Institution

Variable	Total Effect	Direct Effect	Indirect Effect
x_{20} Distance	0.09	0.07	0.02
x_{13} Quality of guidance	-0.02	0.00	-0.02
x_{18} ACT	-0.01	0.00	-0.01
x_{24} Difficulty in transferring	0.11	0.07	0.04
x_{5} Mothers education	-0.02	0.00	-0.02
x_{11} Expectations of attending college	-0.11	-0.11	0.00
x_{6} English primary	0.20	0.20	0.00
x_{35} Family obligations	0.18	0.18	0.00

Path analysis resulted in an NFI and PNFI for the final path model of 0.834 and .371 respectively, indicating that the model was a good fit. These measures indicated that the derived path model for the dependent variable intentions to stop out was a good fit and accurately represented the observed data.

Path Model for the Intention of Delayed Transfer

The dependent variable labeled in the analysis as "transfer not next semester" was interpreted as the intention of delayed transfer. When referring to this dependent variable, these terms will be used interchangeably. In the development of a model for the dependent variable "transfer not next semester," correlations for the collegiate experience variables and the intention of delayed transfer indicated that only three of the 18 collegiate variables were significant at the .05 level. Those collegiate variables identified

as having a significant relationship with the delayed transfer dependent variable were "sense of belonging," "satisfaction with academic experience," and "sense of options." The observed significant correlations are shown in Table 19. The intermediate reduced model for the "delayed transfer" dependent variable, containing only these relationships as model paths between pre-collegiate variables and the dependent variable is shown in Figure 20.

Table 19

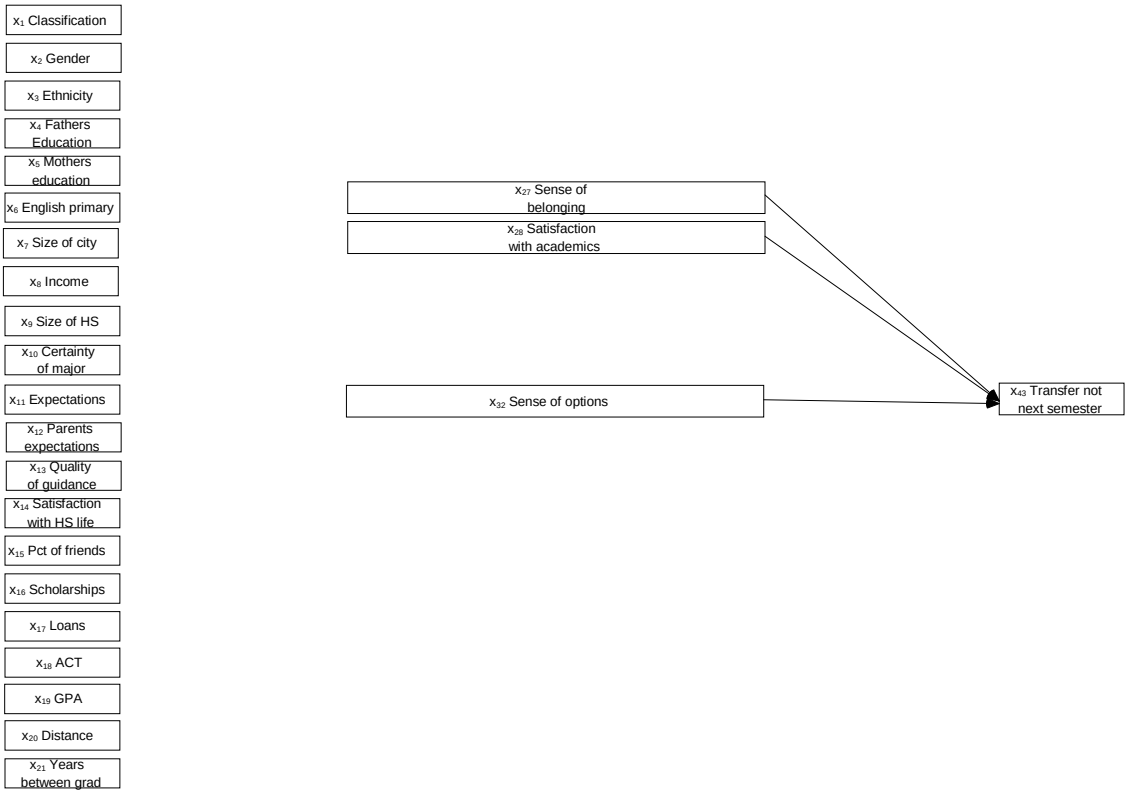
Correlations for Collegiate Variables for Intentions of Stopping Out and Returning to a Different Institution

Variable	Pearson Correlation	Sig. (2-tailed)
x_{27} Sense of belonging	-.116*	.042
x_{28} Satisfaction with academic experience	-.116*	.043
x_{32} Sense of options	-.116*	.044

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 20. Pre-collegiate Variables for Intentions of Stopping Out and Returning to a Different Institution



Significant correlations for all background or pre-collegiate experience variables, and remaining collegiate experience variables were retained for use in the model. Of these, 20 correlations were found to be significant at the .05 level. Those background and pre-collegiate experience variables identified as having a significant correlation with the retained collegiate experience variables were “mother’s education,” “certainty of major,” “expectations of attending college,” “quality of guidance,” “satisfaction with high school life,” “pct of friends,” “distance,” and “years between graduation.” These relationships are shown in Table 20. The reduced model for the “delayed transfer” dependent variable

was constructed to include only these background and pre-collegiate variables. There were eight background and pre-collegiate variables identified for inclusion in the model. Likewise, only model paths that represented significant correlations between pre-collegiate and retained collegiate variables were identified for further inclusion in the model. The resulting intermediate model is shown in Figure 21.

Table 20

Correlations for Pre-collegiate Variables for Intentions of Stopping Out and Returning to a Different Institution

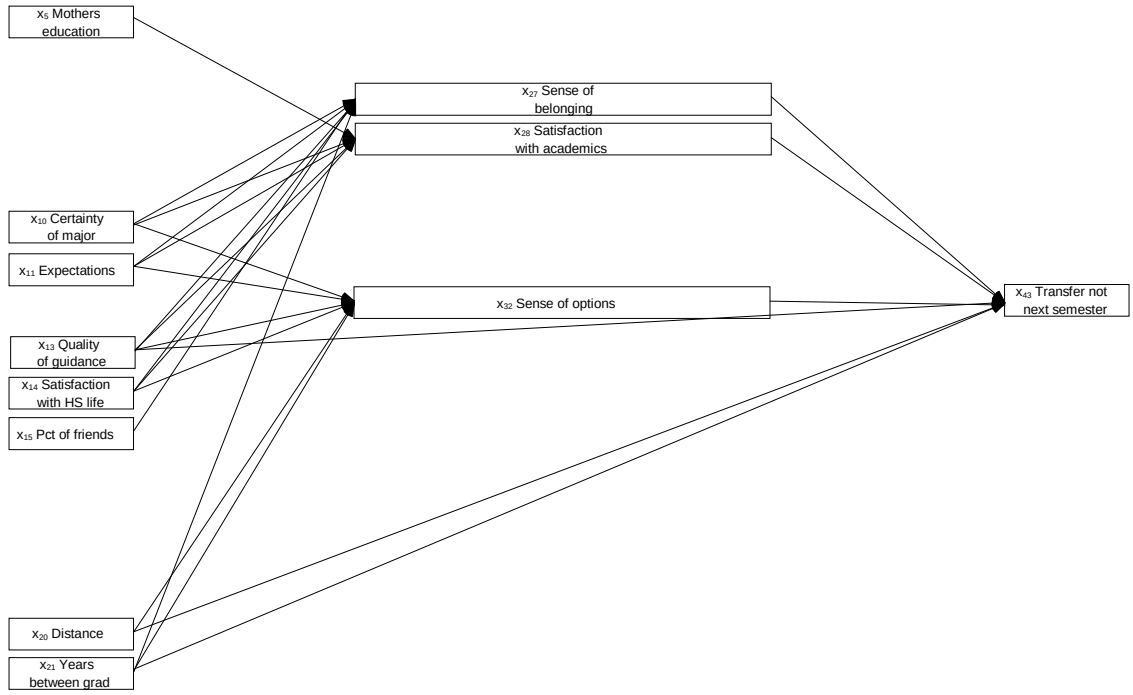
Variable	Variable	Pearson Correlation	Sig. (2-tailed)
x_5 Mothers education	x_{28} Satisfaction with academic experience	.145**	.009
x_{10} Certainty of major	x_{27} Sense of belonging	.212**	.000
	x_{28} Satisfaction with academic experience	.304**	.000
	x_{32} Sense of options	.248**	.000
x_{11} Expectations of attending college	x_{27} Sense of belonging	.256**	.000
	x_{28} Satisfaction with academic experience	.250**	.000
	x_{32} Sense of options	.198**	.000
x_{13} Quality of guidance	x_{27} Sense of belonging	.223**	.000
	x_{28} Satisfaction with academic experience	.222**	.000
	x_{32} Sense of options	.239**	.000
	x_{43} Transfer not next semester	-.118*	.039
x_{14} Satisfaction with hs life	x_{27} Sense of belonging	.165**	.003
	x_{28} Satisfaction with academic experience	.171**	.002

	x_{32} Sense of options	.183**	.001
x_{15} Pct of friends	x_{27} Sense of belonging	.133*	.022
x_{20} Distance	x_{32} Sense of options	-.154**	.008
	x_{43} Transfer not next semester	.165**	.005
x_{21} Years between grad	x_{27} Sense of belonging	-.173**	.002
	x_{32} Sense of options	-.139*	.015
	x_{43} Transfer not next semester	.249**	.000

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 21. All Model Variables for Intentions of Stopping Out and Returning to a Different Institution



The model was then amended based on significant correlations between the collegiate experience variables. The correlation matrix for these variables indicated that there were three relationships at the .05 level of significance. These relationships are presented in Table 21. The inclusion of these paths resulted in the final path model for the dependent variable delayed transfer shown in Figure 22.

Table 21

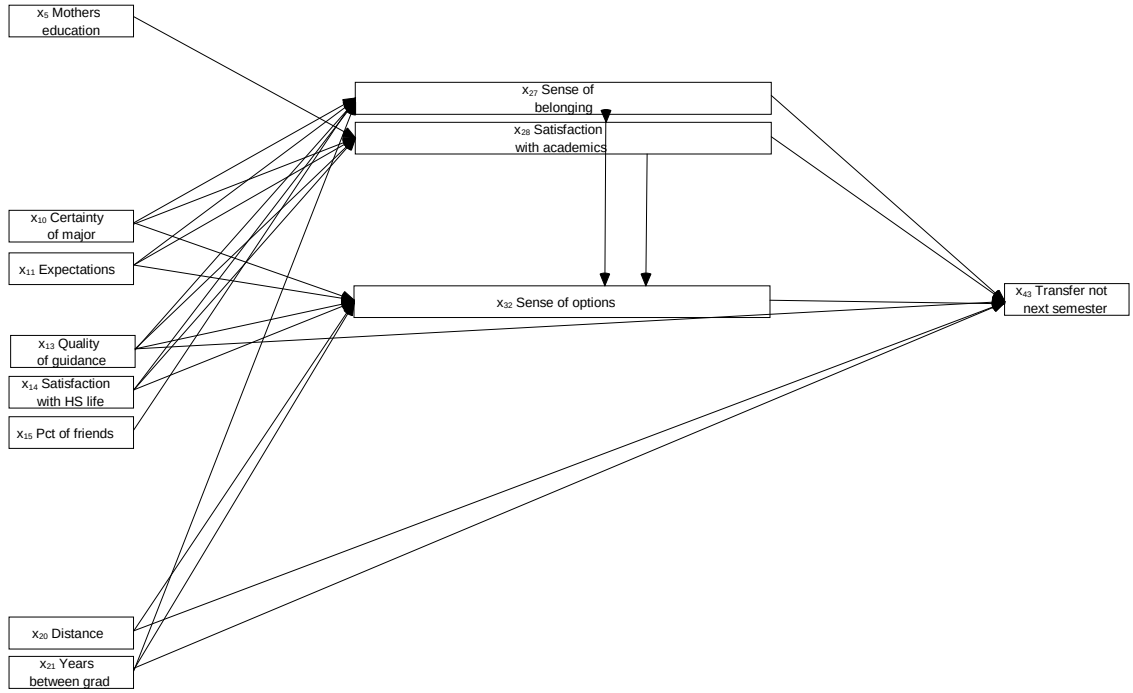
Correlation Matrix for Collegiate Variables for Intentions of Stopping Out and Returning to a Different Institution

Variable	Statistic	x_{27} Sense of belonging	x_{28} Satisfaction with academic experience	x_{32} Sense of options
x_{27} Sense of belonging	Pearson Correlation		.627**	.378**
	Sig. (2-tailed)		.000	.000
x_{28} Satisfaction with academic experience	Pearson Correlation	.627**		.461**
	Sig. (2-tailed)	.000		.000
x_{32} Sense of options	Pearson Correlation	.378**	.461**	
	Sig. (2-tailed)	.000	.000	

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 22. Initial Path Model for Intentions of Stopping Out and Returning to a Different Institution



As before, completion of the model for intentions of delayed transfer was achieved with the inclusion of significant paths between background and pre-collegiate experience variables. The significant correlations between these variables are shown in Table 22. The inclusion of these paths resulted in the final path model for intentions of delayed transfer shown in Figure 23.

Table 22

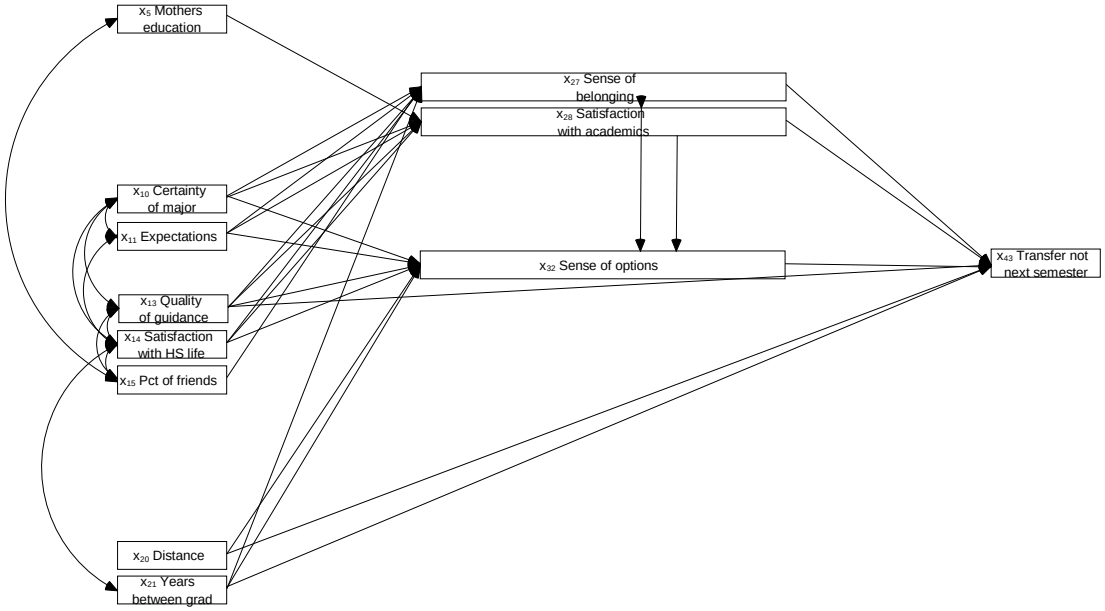
Covariances for Intentions of Stopping Out and Returning to a Different Institution

Variable	Variable	Pearson Correlation	Sig. (2-tailed)
x_5 Mothers education	x_{15} Pct of friends	.225**	.000
x_{10} Certainty of major	x_{11} Expectations of attending college	.142**	.009
	x_{13} Quality of guidance	.236**	.000
	x_{14} Satisfaction with hs life	.152**	.005
x_{11} Expectations of attending college	x_{14} Satisfaction with hs life	.137*	.012
x_{13} Quality of guidance	x_{14} Satisfaction with hs life	.454**	.000
	x_{15} Pct of friends	.143*	.012
x_{14} Satisfaction with hs life	x_{15} Pct of friends	.253**	.000
	x_{21} Years between grad	-.123*	.026

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 23. Final Path Model for Intentions of Stopping Out and Returning to a Different Institution



After reduction, the final path model for this dependent variable consisted of 12 variables and 26 paths between variables. Figure 23 shows the path model for the dependent variable transfer not next semester that was evaluated using path analysis. The effects for each of the variables of this model on the dependent variable are provided Table 23.

Table 23

Decomposition of Effects for Intentions of Stopping Out and Returning to a Different Institution

Variable	Total Effect	Direct Effect	Indirect Effect
x_{21} Years between grad	0.34	0.33	0.01

x_{15} Pct of friends	-0.01	0.00	-0.01
x_{14} Satisfaction with hs life	0.00	0.00	0.00
x_{13} Quality of guidance	-0.10	-0.09	-0.01
x_{11} Expectations of attending college	-0.02	0.00	-0.02
x_{10} Certainty of major	-0.02	0.00	-0.02
x_{27} Sense of belonging	-0.06	-0.02	-0.04
x_{5} Mothers education	-0.01	0.00	-0.01
x_{20} Distance	0.17	0.17	0.00
x_{28} Satisfaction with academic experience	-0.07	-0.07	0.00
x_{32} Sense of options	0.01	0.01	0.00

The NFI and PNFI for the final path model were 0.937 and .372 respectively, indicating that the model was a good fit. These measures indicated that the derived path model for the dependent variable intentions of delayed transfer was a good fit and accurately represented the observed data.

Path Model for the Intention to Not Attend

The dependent variable labeled in the analysis as "not attend" was interpreted as the intention to drop out. When referring to this dependent variable, these terms will be used interchangeably. In the construction of a model for the dependent variable drop out, correlations for the collegiate experience variables and the intention to not attend showed indicated that only two of the 18 collegiate variables were significant at the .05 level. Those collegiate variables identified as having a significant relationship with the not attend dependent variable were "satisfaction with curriculum" and "confidence in

decision to attend." The observed significant correlations are shown in Table 24. The initial reduced model for the drop out dependent variable, containing only these relationships as model paths between pre-collegiate variables and the dependent variable is shown in Figure 24.

Table 24

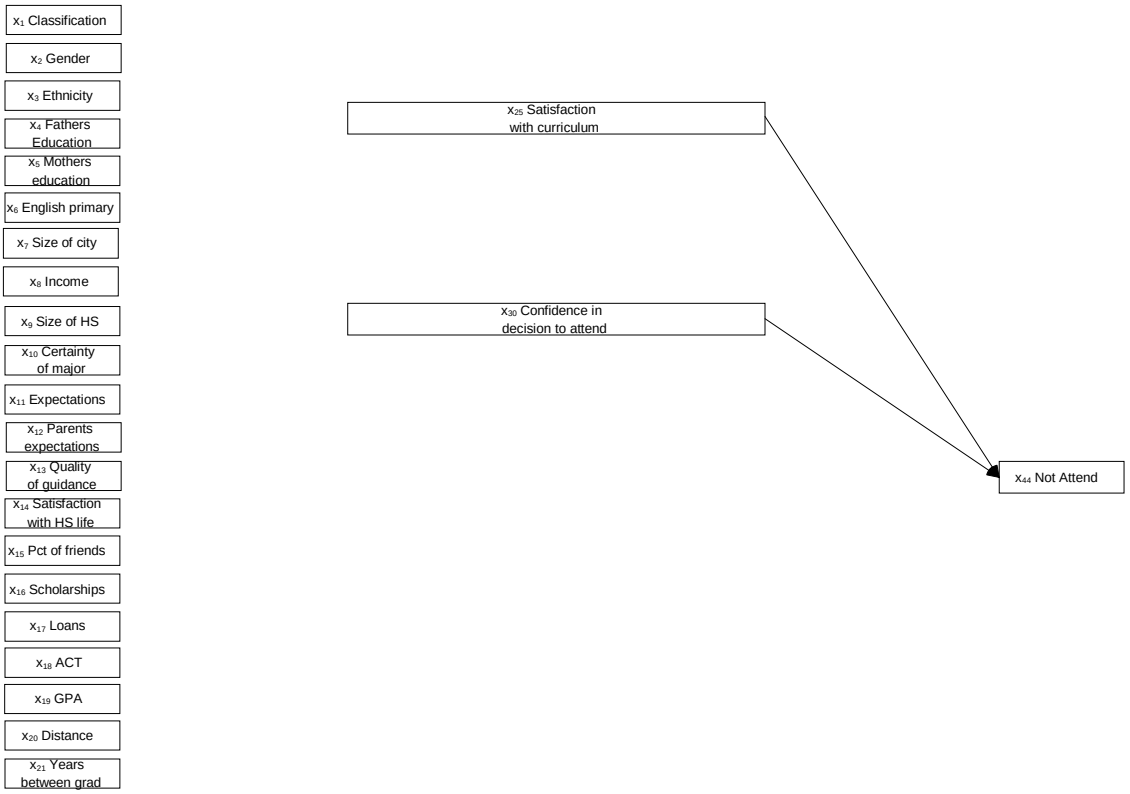
Correlations for Collegiate Variables for Intentions of Dropping Out

Variable	Pearson Correlation	Sig. (2-tailed)
x_{25} Satisfaction with curriculum	-.113*	.049
x_{30} Confidence decision to attend	-.129*	.025

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 24. Pre-collegiate Variables for Intentions of Dropping Out



Significant correlations for all background or pre-collegiate experience variables, and remaining collegiate experience variables were retained for use in the model. Of these, 13 correlations were found to be significant at the .05 level. Those background and pre-collegiate experience variables identified as having a significant correlation with the retained collegiate experience variables were "ethnicity," "certainty of major," "expectations of attending college," "parents' expectations of attending college," "quality of guidance," "satisfaction with high school life," "scholarships," "loans," "distance," and "years between graduation." These relationships are presented in Table 25. The reduced model for the drop out dependent variable was constructed to include only these background and pre-collegiate variables. There were ten background and pre collegiate variables identified for inclusion in the model. Only paths that represented significant correlations between pre-collegiate and retained collegiate variables were identified for inclusion in the model. The resulting intermediate model is shown in Figure 25.

Table 25

Correlations for Pre-collegiate Variables for Intentions of Dropping Out

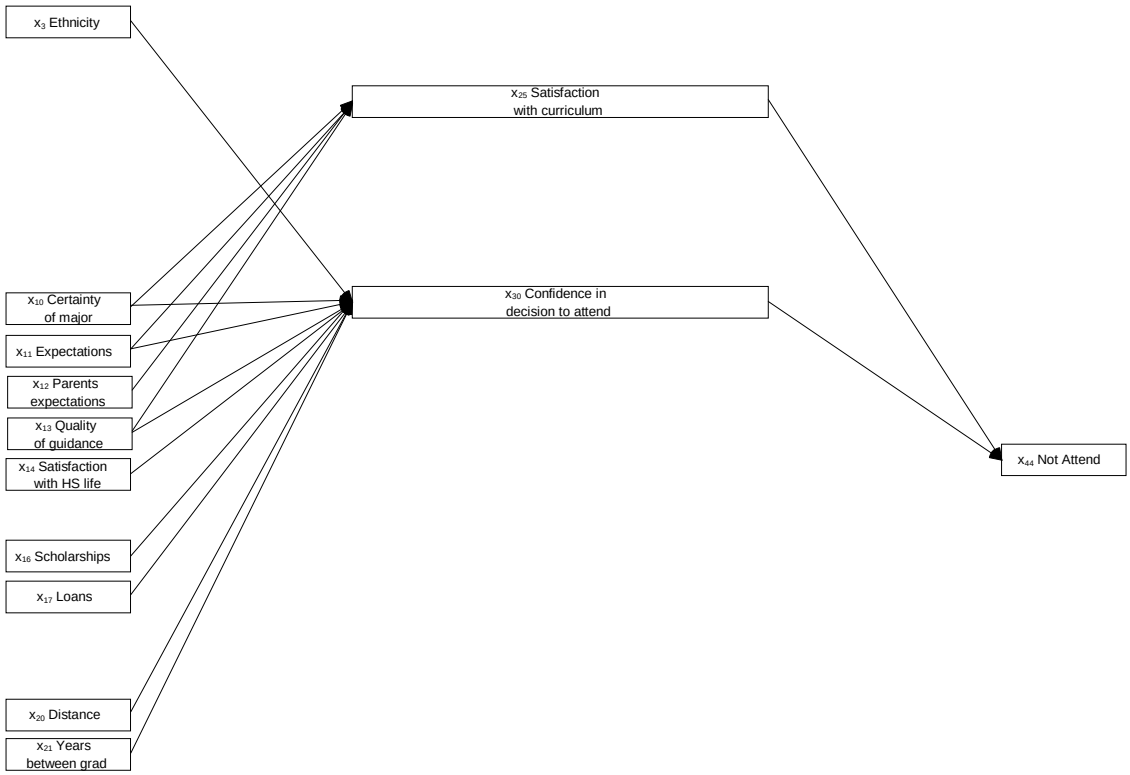
Variable	Variable	Pearson Correlation	Sig. (2-tailed)
x_3 Ethnicity	x_{30} Confidence decision to attend	-.125*	.026
x_{10} Certainty of major	x_{25} Satisfaction with curriculum	.224**	.000
	x_{30} Confidence decision to attend	.226**	.000
x_{11} Expectations of attending college	x_{25} Satisfaction with curriculum	.204**	.000
	x_{30} Confidence decision to attend	.345**	.000
x_{12} Parents expectations of attending college	x_{25} Satisfaction with curriculum	-.137*	.014
x_{13} Quality of guidance	x_{25} Satisfaction with curriculum	.131*	.019

	x_{30} Confidence decision to attend	.161**	.004
x_{14} Satisfaction with hs life	x_{30} Confidence decision to attend	.178**	.001
x_{16} Scholarships	x_{30} Confidence decision to attend	-.119*	.048
x_{17} Loans	x_{30} Confidence decision to attend	-.171**	.006
x_{20} Distance	x_{30} Confidence decision to attend	-.116*	.046
x_{21} Years between grad	x_{30} Confidence decision to attend	-.211**	.000

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 25. All Model Variables for Intentions of Dropping Out



The model was then modified based on the correlation matrix for collegiate experience variables. The correlation matrix for these variables indicated that there was one relationship at the .05 level of significance. These relationships are presented in Table 26. The inclusion of these paths resulted in the final path model for the dependent variable drop out shown in Figure 26.

Table 26

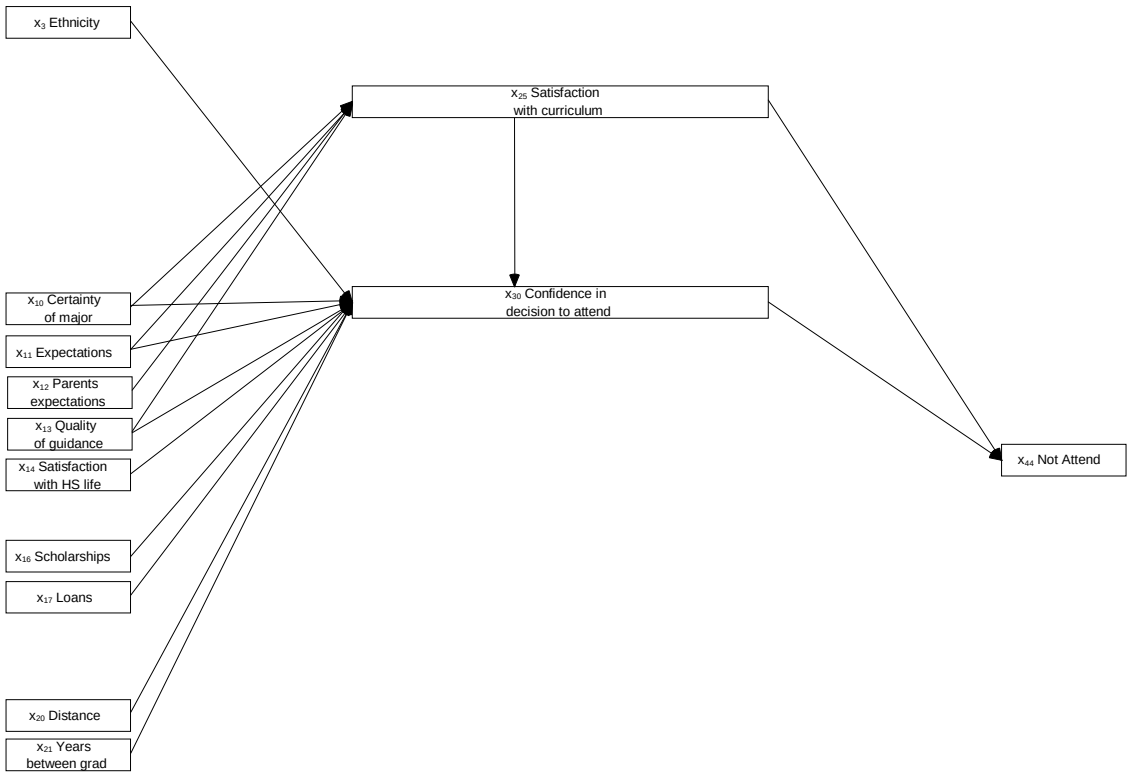
Correlation Matrix for Collegiate Variables for Intentions of Dropping Out

Variable	Statistic	x_{25} Satisfaction with curriculum	x_{30} Confidence decision to attend
x_{25} Satisfaction with curriculum	Pearson Correlation		.356**
	Sig. (2-tailed)		.000
x_{30} Confidence decision to attend	Pearson Correlation	.356**	
	Sig. (2-tailed)	.000	

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 26. Initial Path Model for Intentions of Dropping Out



To complete the model for intentions of dropping out, statistically significant paths between background and pre-collegiate experience variables were included. The significant correlations between background and collegiate experience variables are shown in Table 27, and the final path model for intentions of dropping out resulting from the inclusion of these paths is depicted in Figure 27.

Table 27

Covariances for Intentions of Dropping Out

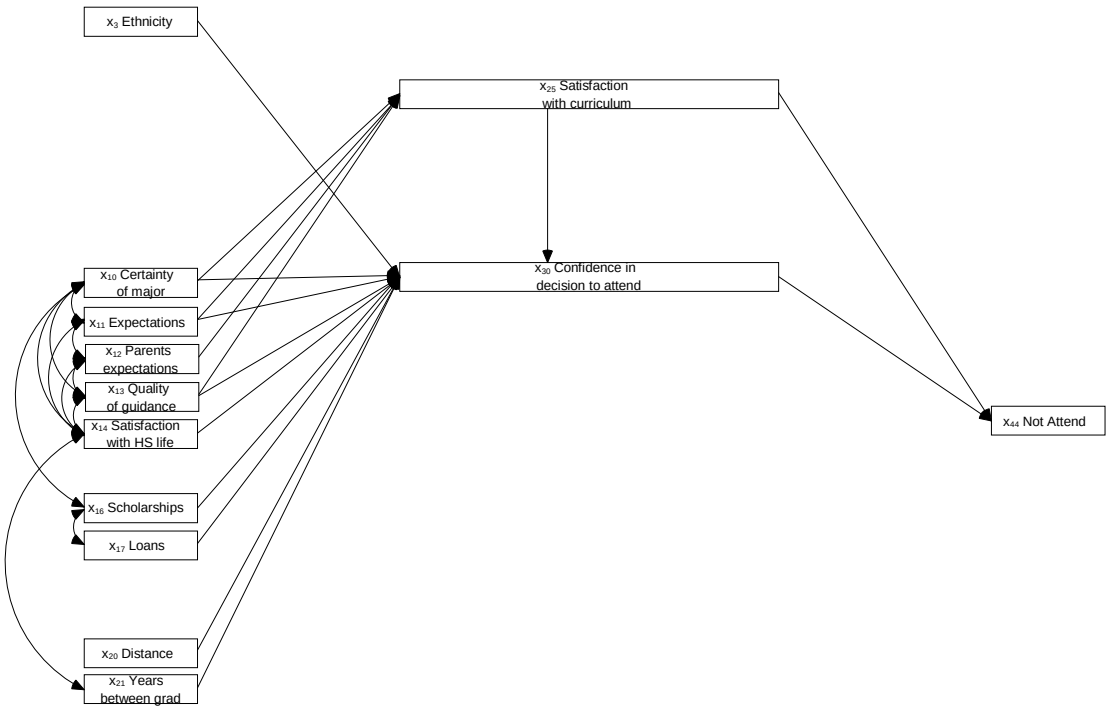
Variable	Variable	Pearson Correlation	Sig. (2-tailed)
x_{10} Certainty of major	x_{11} Expectations of attending college	.142**	.009

	x_{13} Quality of guidance	.236**	.000
	x_{14} Satisfaction with hs life	.152**	.005
	x_{16} Scholarships	-.145*	.013
x_{11} Expectations of attending college	x_{12} Parents expectations of attending college	.300**	.000
	x_{14} Satisfaction with hs life	.137*	.012
x_{12} Parents expectations of attending college	x_{13} Quality of guidance	.238**	.000
	x_{14} Satisfaction with hs life	.210**	.000
x_{13} Quality of guidance	x_{14} Satisfaction with hs life	.454**	.000
x_{14} Satisfaction with hs life	x_{21} Years between grad	-.123*	.026
x_{16} Scholarships	x_{17} Loans	.704**	.000

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 27. Final Path Model for Intentions of Dropping Out



After reduction, the final path model for this dependent variable consisted of 13 variables and 16 paths between variables. Figure 27 shows the path model for the dependent variable drop out that was evaluated using path analysis. Table 28 provides a summary of the total, direct, and indirect effects of each collegiate and pre-collegiate variable on the dependent variable of the model for dropping out.

Table 28

Decomposition of Effects for Intentions of Dropping Out

Variable	Total Effect	Direct Effect	Indirect Effect
x_{13} Quality of guidance	-0.02	0.00	-0.02
x_{12} Parents expectations of attending college	0.02	0.00	0.02
x_{11} Expectations of attending college	-0.05	0.00	-0.05
x_{10} Certainty of major	-0.03	0.00	-0.03
x_{21} Years between grad	0.02	0.00	0.02
x_{20} Distance	0.01	0.00	0.01
x_{17} Loans	0.02	0.00	0.02
x_{16} Scholarships	0.00	0.00	0.00
x_{14} Satisfaction with hs life	-0.01	0.00	-0.01
x_{25} Satisfaction with curriculum	-0.10	-0.08	-0.02
x_{3} Ethnicity	0.01	0.00	0.01
x_{30} Confidence decision to attend	-0.10	-0.10	0.00

The NFI and PNFI for the final path model were 0.931 and .522 respectively, indicating that the model was a good fit. These measures indicated that the derived path model for the dependent variable intentions to drop out was a good fit and accurately represented the observed data.

Path Model for Undecided Intentions

Development of the model for the dependent variable "undecided" was based on correlations for the collegiate variables and the intention designated as undecided. These correlations indicated that four of the 18 collegiate variables were significant at the .05 level. Those collegiate variables identified as having a significant relationship with the undecided dependent variable were "sense of belonging," "confidence in decision to attend," "importance of degree," and "confidence in ability." The significant correlations are shown in Table 29. The initial reduced model for the undecided dependent variable, containing only these relationships as model paths between pre-collegiate variables and the dependent variable is shown in Figure 28.

Table 29

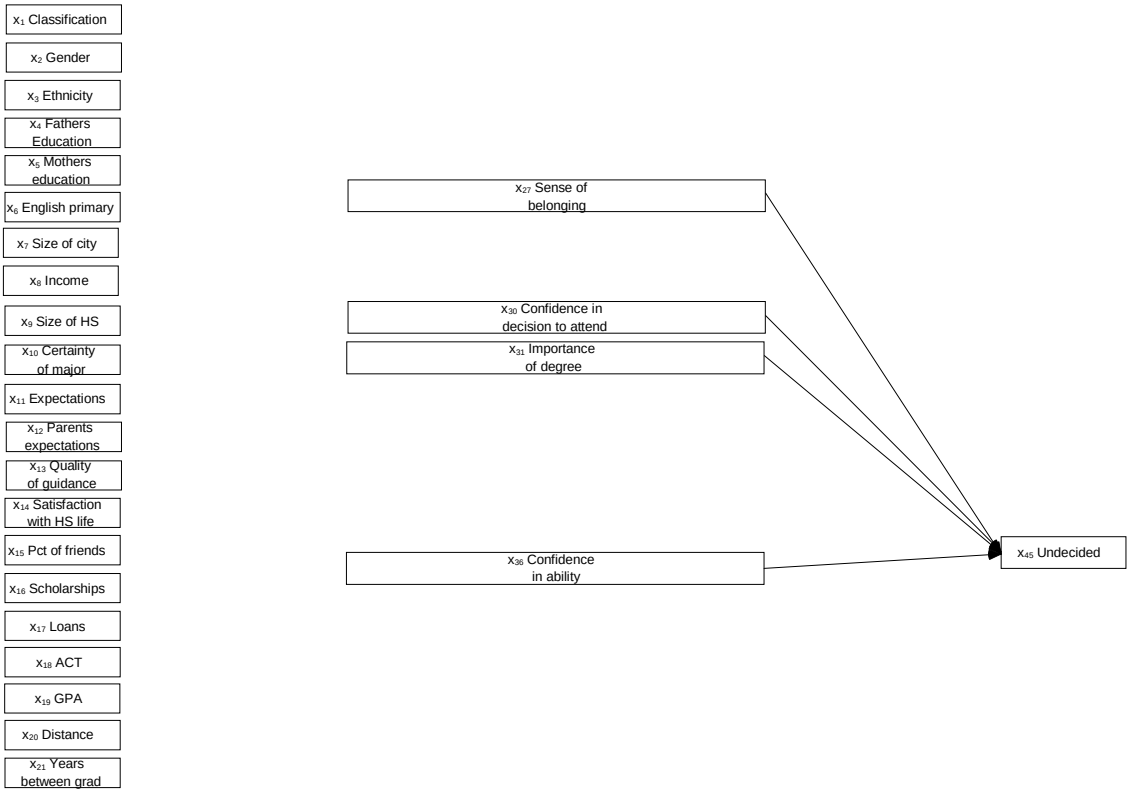
Correlations for Collegiate Variables for Undecided Intentions

Variable	Pearson Correlation	Sig. (2-tailed)
x_{27} Sense of belonging	-.140*	.015
x_{30} Confidence decision to attend	-.155**	.008
x_{31} Importance of degree	-.154**	.008
x_{36} Confidence in ability	-.120*	.039

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 28. Pre-collegiate Variables for Undecided Intentions



Significant correlations for all background or pre-collegiate experience variables, and remaining collegiate experience variables were retained for use in the model. Of these, 28 correlations were found to be significant at the .05 level. Those background and pre-collegiate experience variables identified as having a significant correlation with the retained collegiate experience variables were “gender,” “ethnicity,” “mother’s education,” “English primary,” “size of high school,” “certainty of major,” “expectations of attending college,” “quality of guidance,” “satisfaction with high school life,” “pct of friends,” “scholarships,” “loans,” “distance,” and “years between graduation.” These

correlations are presented in Table 30. The reduced model for the "undecided" dependent variable was modified to include only these background and pre-collegiate variables. There were 14 background and pre collegiate variables identified for inclusion in the model. Only paths that represented significant correlations between pre-collegiate and retained collegiate variables were identified for inclusion in the model. The resulting intermediate model is shown in Figure 29.

Table 30

Correlations for Pre-collegiate Variables for Undecided Intentions

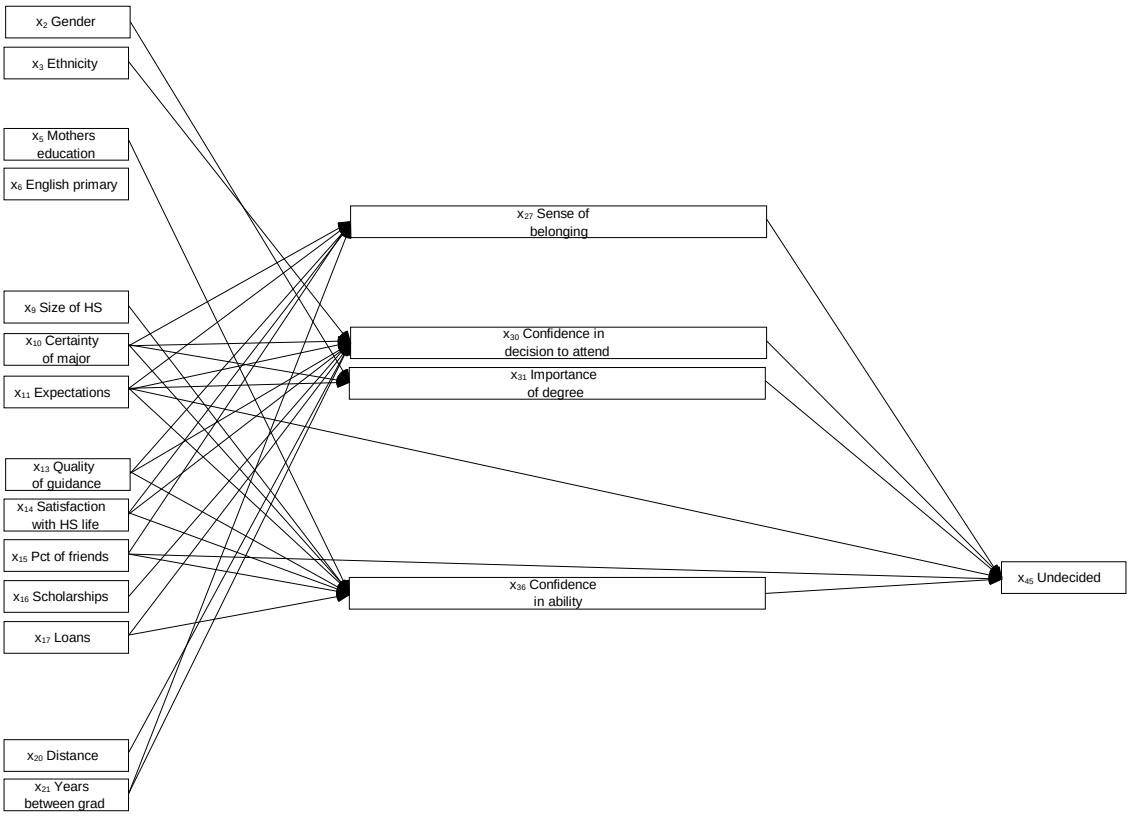
Variable	Variable	Pearson Correlation	Sig. (2-tailed)
x_2 Gender	x_{31} Importance of degree	.220**	.000
x_3 Ethnicity	x_{30} Confidence decision to attend	-.125*	.026
x_5 Mothers education	x_{36} Confidence in ability	.117*	.037
x_6 English primary	x_{45} Undecided	.149*	.010
x_9 Size of hs	x_{36} Confidence in ability	.112*	.050
x_{10} Certainty of major	x_{27} Sense of belonging	.212**	.000
	x_{30} Confidence decision to attend	.226**	.000
	x_{31} Importance of degree	.150**	.007
	x_{36} Confidence in ability	.295**	.000
x_{11} Expectations of attending college	x_{27} Sense of belonging	.256**	.000
	x_{30} Confidence decision to attend	.345**	.000
	x_{31} Importance of degree	.355**	.000
	x_{36} Confidence in ability	.302**	.000

x_{13} Quality of guidance	x_{27} Sense of belonging	.223**	.000
	x_{30} Confidence decision to attend	.161**	.004
	x_{36} Confidence in ability	.226**	.000
x_{14} Satisfaction with hs life	x_{27} Sense of belonging	.165**	.003
	x_{30} Confidence decision to attend	.178**	.001
	x_{36} Confidence in ability	.239**	.000
x_{15} Pct of friends	x_{27} Sense of belonging	.133*	.022
	x_{36} Confidence in ability	.115*	.049
	x_{45} Undecided	-.138*	.021
x_{16} Scholarships	x_{30} Confidence decision to attend	-.119*	.048
x_{17} Loans	x_{30} Confidence decision to attend	-.171**	.006
	x_{36} Confidence in ability	-.138*	.027
x_{20} Distance	x_{30} Confidence decision to attend	-.116*	.046
x_{21} Years between grad	x_{27} Sense of belonging	-.173**	.002
	x_{30} Confidence decision to attend	-.211**	.000

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 29. All Model Variables for Undecided Intentions



The model was then modified based on the correlation matrix for collegiate experience variables. The correlation matrix for these variables indicated that there were six relationships at the .05 level of significance. These relationships are presented in Table 31. The inclusion of these paths resulted in the final path model for the dependent variable undecided shown in Figure 30.

Table 31

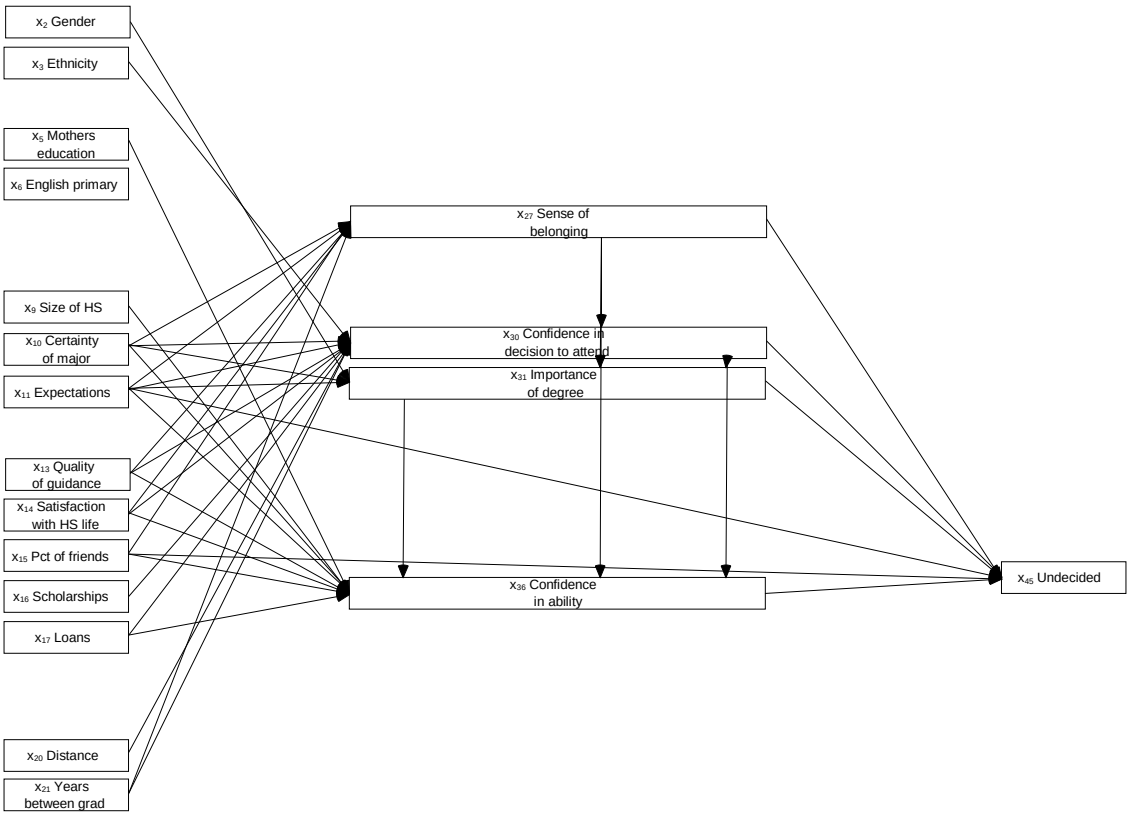
Correlation Matrix for Collegiate Variables for Undecided Intentions

Variable	Statistic	x_{27} Sense of belonging	x_{30} Confidence decision to attend	x_{31} Importance of degree	x_{36} Confidence in ability
x_{27} Sense of belonging	Pearson Correlation		.392**	.196**	.317**
	Sig. (2-tailed)		.000	.000	.000
x_{30} Confidence decision to attend	Pearson Correlation	.392**		.460**	.457**
	Sig. (2-tailed)	.000		.000	.000
x_{31} Importance of degree	Pearson Correlation	.196**	.460**		.354**
	Sig. (2-tailed)	.000	.000		.000
x_{36} Confidence in ability	Pearson Correlation	.317**	.457**	.354**	
	Sig. (2-tailed)	.000	.000	.000	

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 30. Initial Path Model for Undecided Intentions



Completing the path model, significant correlations between background and pre-collegiate experience variables, shown in Table 32, were included resulting in the final path model for undecided intentions shown in Figure 31.

Table 32

Covariances for Undecided Intentions

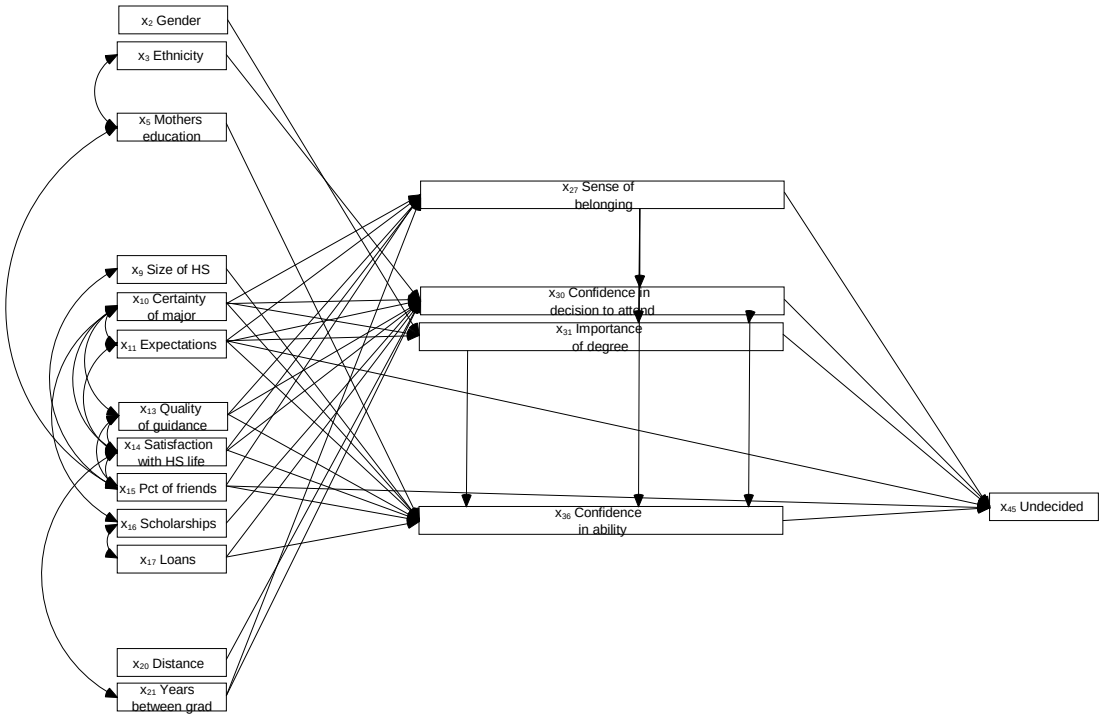
Variable	Variable	Pearson Correlation	Sig. (2-tailed)
x_3 Ethnicity	x_5 Mothers education	-.196**	.000
x_5 Mothers education	x_{15} Pct of friends	.225**	.000

x_9 Size of hs	x_{15} Pct of friends	.148*	.010
x_{10} Certainty of major	x_{11} Expectations of attending college	.142**	.009
	x_{13} Quality of guidance	.236**	.000
	x_{14} Satisfaction with HS life	.152**	.005
	x_{16} Scholarships	-.145*	.013
x_{11} Expectations of attending college	x_{14} Satisfaction with HS life	.137*	.012
x_{13} Quality of guidance	x_{14} Satisfaction with HS life	.454**	.000
	x_{15} Pct of friends	.143*	.012
x_{14} Satisfaction with hs life	x_{15} Pct of friends	.253**	.000
	x_{21} Years between grad	-.123*	.026
x_{16} Scholarships	x_{17} Loans	.704**	.000

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 31. Final Path Model for Undecided Intentions



After reduction, the final path model for this dependent variable consisted of 19 variables and 27 paths between variables. Figure 31 shows the path model for the dependent variable undecided that was evaluated using path analysis. Table 33 shows the decomposition of effects for each variable of the model on the dependent variable of undecided intentions

Table 33

Decomposition of Effects for Undecided Intentions

Variable	Total Effect	Direct Effect	Indirect Effect
x_{21} Years between grad	0.03	0.00	0.03
x_{15} Pct of friends	-0.12	-0.11	-0.01
x_{14} Satisfaction with HS life	-0.01	0.00	-0.01

x_{13} Quality of guidance	-0.01	0.00	-0.01
x_{11} Expectations of attending college	-0.16	-0.11	-0.05
x_{10} Certainty of major	-0.02	0.00	-0.02
x_{20} Distance	0.01	0.00	0.01
x_{17} Loans	0.01	0.00	0.01
x_{16} Scholarships	0.00	0.00	0.00
x_{27} Sense of belonging	-0.08	-0.06	-0.02
x_{3} Ethnicity	0.01	0.00	0.01
x_{30} Confidence decision to attend	-0.08	-0.05	-0.03
x_{2} Gender	-0.01	0.00	-0.01
x_{9} Size of hs	0.00	0.00	0.00
x_{5} Mothers education	0.00	0.00	0.00
x_{31} Importance of degree	-0.07	-0.07	0.00
x_{36} Confidence in ability	-0.01	-0.01	0.00

Path analysis resulted in an NFI and PNFI for the final path model of 0.872 and .520 respectively, indicating that the model was a good fit. These measures indicated that the derived path model for the dependent variable intentions designated as undecided was a good fit and accurately represented the observed data.

Summary of Path Models for Intentions to Persist

The analyses presented in the preceding sections have resulted in path models for intentions to persist in higher education. These intentions relate to the likelihood of institutional persistence, immediate transfer, stop out, delayed transfer, and drop out, as

well as undecided intentions. The evaluation of these path models is summarized in Table 34 below.

Table 34

Summary of Persistence Intentions Path Models

Model	NFI	PNFI	NPAR	NPAR(sat)
x_{40} Institutional persistence	0.880	0.512	185	405
x_{41} Immediate transfer	0.907	0.447	138	252
x_{42} Stop out	0.834	0.371	34	54
x_{43} Delayed transfer	0.937	0.372	59	90
x_{44} Drop out	0.931	0.522	53	104
x_{45} Undecided	0.872	0.520	87	189

Of the six models presented, all models met the criteria for goodness-of-fit and parsimony that indicate a useful and accurate model of the phenomenon. Intentions of institutional persistence, immediate transfer, and undecided intentions required significantly more variables and paths in the development of the path model for these dependent variables. The analysis for intentions of stopping out, dropping out, and for delayed transfer resulted in much less complex models, i.e., fewer variables and paths were required.

Review of Findings

As suggested by the research questions posed previously, the objectives of the findings presented here were to 1) identify pre-collegiate variables that significantly

influence future academic plans regarding participation in higher education, 2) identify collegiate experiences that significantly influence intentions regarding participation in higher education, 3) identify interactions between pre-collegiate variables and higher education experiences that significantly influence intentions for participation in higher education, and 4) identify the causal model that results from the observed relationships among pre-collegiate variables, higher education experiences, and intentions for participation in higher education. The findings in relation to each of the 4 research questions addressed in this study are summarized below.

1. *What pre-collegiate variables significantly influence future academic plans regarding participation in higher education?*

With regard to the first research objective, that of identifying significant pre-collegiate variables, the findings indicated that the factors identified varied substantially depending upon the specific type of persistence intention being considered. The observed significant background and pre-collegiate variables for each specific type of persistence intention addressed by this study are presented below.

- <u>Intentions of persistence at the same institution</u>:

  Gender, ethnicity, father's education, mother's education, English primary, size of high school, certainty of major, expectations, parent's expectations, quality of guidance, satisfaction with high school life, percent of friends, scholarships, loans, distance, and years between graduation were significant correlates.

- <u>Intentions of persistence at a different institution</u>:

Father's education, mother's education, English primary, size of high school, certainty of major, expectations, parent's expectations, quality of guidance, satisfaction with high school life, percent of friends, loans, and years between graduation were significant correlates.

- Intentions of stopping out and returning to the same institution:

  Mother's education, English primary, expectations, quality of guidance, ACT, and distance were significant correlates.

- Intentions of stopping out and returning to a different institution:

  Mother's education, certainty of major, expectations, quality of guidance, satisfaction with high school life, percent of friends, distance, and years between graduation were significant correlates.

- Intentions of dropping out:

  Ethnicity, certainty of major, expectations, parent's expectations, quality of guidance, satisfaction with high school life, scholarships, loans, distance, and years between graduation were significant correlates.

- Undecided intentions:

  Gender, ethnicity, mother's education, English primary, size of high school, certainty of major, expectations, quality of guidance, satisfaction with high school life, percent of friends, scholarships, loans, distance, and years between graduation were significant correlates.

2. *What collegiate experiences significantly influence intentions regarding participation in higher education?*

With regard to the second research objective, that of identifying significant collegiate variables, the findings indicated that the variables identified also varied substantially depending upon the specific type of persistence intention being considered. The observed significant collegiate variables for each specific type of persistence intention addressed by this study are presented below.

- Intentions of persistence at the same institution:

  Family encouragement, satisfaction with curriculum, sense of belonging, satisfaction with academics, satisfaction with relationships, confidence in decision to attend, importance of degree, confidence in choice of major, and confidence in ability, sense of entitlement were significant correlates.

- Intentions of persistence at a different institution:

  Family encouragement, satisfaction with curriculum, sense of belonging, satisfaction with academics, satisfaction with relationships, confidence in choice of major, confidence in ability, and sense of entitlement were significant correlates.

- Intentions of stopping out and returning to the same institution:

  Difficulty in transferring and family obligations were significant correlates.

- Intentions of stopping out and returning to a different institution:

  Sense of belonging, satisfaction with academics, and sense of options were significant correlates.

- Intentions of dropping out:

  Satisfaction with curriculum and confidence in decision to attend were significant correlates.

- Undecided intentions:

  Sense of belonging, confidence in decision to attend, importance of degree, and confidence in ability were significant correlates.

3. *What interactions between pre-collegiate variables and higher education experiences significantly influence intentions for participation in higher education?*

Concerning the third research objective, that of identifying significant interactions between pre-collegiate and collegiate variables, the large number of significant relationships between pre-collegiate and collegiate variables have been enumerated previously and these relationships have been presented in detail for each model of persistence intention. It is noteworthy, however, that the significant influence of pre-collegiate variables on persistence intentions was found to be due, almost exclusively, to the influence of these variables on college experience variables. That is to say, the influence of pre-collegiate variables on persistence intentions is largely due to the indirect effects of these variables through college experience variables. The observance of a significant direct effect between a pre-collegiate variable and the dependent variable was minimal in the results for all persistence intention models.

4. *What causal model results from the observed relationships among pre-collegiate variables, higher education experiences, and intentions for participation in higher education?*

The fourth research objective, that of identifying the causal model that results from the observed relationships among pre-collegiate variables, higher education

experiences, and intentions for participation in higher education, was achieved through the step-wise construction of the path model. These step-wise constructions were based upon observed correlations for each specific type of persistence intention being considered. The resulting causal models for each of the specific persistence intentions addressed in this study, i.e., intentions of persistence at the same institution, intentions of persistence at a different institution, intentions of stopping out and returning to the same institution, intentions of stopping out and returning to a different institution, intentions of dropping out, and undecided intentions, were presented previously in figures 11, 15, 19, 23, 27, and 31 respectively. The models depicted in these figures reflect the results of the findings related to the previous research questions and were constructed based on these results. A summary of the components of each of the models is presented below.

- Intentions of persistence at the same institution:

  16 pre-collegiate variables, 10 collegiate variables, 55 relationships between pre-collegiate variable and collegiate variables were included.

- Intentions of persistence at a different institution:
- 12 pre-collegiate variables, 8 collegiate variables, 7 relationships between pre-collegiate variable and collegiate variables were included.
- Intentions of stopping out and returning to the same institution:
- 6 pre-collegiate variables, 2 collegiate variables, 20 relationships between pre-collegiate variable and collegiate variables were included.
- Intentions of stopping out and returning to a different institution:
- 8 pre-collegiate variables, 3 collegiate variables, 13 relationships between pre-collegiate variable and collegiate variables were included.

- Intentions of dropping out:
- 10 pre-collegiate variables, 2 collegiate variables, 28 relationships between pre-collegiate variable and collegiate variables were included.
- Undecided intentions:
- 14 pre-collegiate variables, 4 collegiate variables, 25 relationships between pre-collegiate variable and collegiate variables were included.

As indicated above, the path analysis procedures utilized resulted in rather complex models for intentions of persistence, whether at the same institution or at a different institution, as well as for undecided intentions. On the other hand, path analysis resulted in far less complex models for intentions of stopping out, whether to the returning same institution or a different institution, as well as for intentions of dropping out. All models, however, met the criteria established for goodness-of-fit and parsimony which characterize accurate and useful models of the phenomena.

Chapter V

Introduction

The purpose of this study was to develop and evaluate causal models for intentions to persist in higher education. Data were collected from 372 freshman and sophomore college students at a 4-year, Research I university through the use of an electronic survey designed to collect information regarding background demographics, pre-collegiate experiences, collegiate experiences, and intentions to persist in higher education. This data served as the foundation for the development of the models of persistence intentions. These models were developed and tested through the use of path analysis. The following sections provide a discussion, interpretation, and evaluation of the resulting causal models for intentions to persist in higher education.

Correlations

A matrix indicating the correlation and the statistical significance of the correlation between any two variables was generated for all study variables. For each dependent variable, only college experience variables and paths exhibiting a significant relationship with that dependent variable were retained for use in that persistence intention model. Likewise, background and pre-collegiate experience variables were included based upon the strength of relationship with college experience variables and only significant paths were included in the model. The models of higher education persistence intentions that emerged through the use of this model reduction methodology varied considerably in complexity. Consideration of the underlying correlations for each model will provide a basis for understanding and interpreting the path models presented.

The first noteworthy observation regarding the correlation matrix of all variables was the large number of relationships that were statistically significant. Of the 1,035 total correlations calculated, 241 were significant at the .05 level. Considering the number of variables and correlations, the final path model for institutional persistence consisted of 27 variables and 185 paths. Each of these paths represented a statistically significant correlation between two variables in the model. For this model, 10 of the 18 collegiate experience variables were retained and 16 out of the 21 background and pre-collegiate variables were retained. The institutional persistence model, while providing accuracy (NFI of .880) and significant model reduction (PNFI of .512), still exhibited a great deal of complexity. The same was true for the model for intentions of immediate transfer where 8 of the collegiate experience variables and 12 of the background and pre-collegiate variables were retained (NFI of .907, PNFI of .447). The model for undecided intentions also exhibited similar complexity, although to a lesser extent, with the retention of 4 collegiate experience variables and 10 background and pre-collegiate variables (NFI of .872, PNFI of .520). The complexity of these models arises not necessarily from the number of variables retained, but rather from the associated number of significant paths between these variables. For all three of the models above, accuracy was very close to the desired criterion of an NFI of .95. Likewise, for all three, the degree of model reduction from the fully recursive model approached the desired criterion of .60. Still, intuitive interpretation of these models was somewhat limited by the inclusion of the number of relationships required.

The reduction procedure for the other three models, intentions of stopping out, intentions of delayed transfer, and undecided intentions, however, resulted in equally

accurate yet far less complex models. The procedures for developing the model for intention to stop out resulted in the retention of only two college experience variables and six background and pre-collegiate variables. For the model of intentions of delayed transfer, three collegiate experience and eight pre-collegiate variables were retained. The model for intentions to drop out consisted of two collegiate variables and ten pre-collegiate. Again, the accuracy of these three models was high, (NFI of .834, .937, and .931 respectively), but here the number of variables and paths required to produce such a model was far more limited. In fact, the identified measure of parsimony (PNFI of .371, .372, and .522 respectively) for these three models indicated that, although accuracy of the models might suffer, additional model reduction might be desirable.

The number of paths associated with the final path models for intentions of institutional persistence, intentions of immediate transfer, and undecided intentions was 185, 138, and 87 respectively. For the models of intentions of stopping out, delayed transfer, and dropping out the number of paths in the final path models was 34, 59, and 53 respectively. This indicated effectively the diversity in the level of complexity among the models, e.g. the model for institutional persistence involved more than five times the number of paths as that for the model of intentions to stop out. Before further addressing the implications of these observations, an examination of the nature and strengths of these relationships is in order.

The results for institutional persistence intentions showed that the most influential collegiate experience variables upon the dependent variable were “family encouragement,” “satisfaction with curriculum,” “sense of belonging,” “satisfaction with academics,” “satisfaction with relationships,” “confidence in decision to attend,”

"importance of degree," "confidence in choice of major," "confidence in ability," and "sense of entitlement." While 16 pre-collegiate variables were retained in the model, a few can be identified as having significant relationships with the largest number of collegiate variables. These are "certainty of major," "expectations of attending college," "quality of guidance," and "satisfaction with high school life." These four variables accounted for 36 of the 55 significant correlations between pre-collegiate and collegiate variables. Three of the six pre-collegiate variables included in the model showed a significant, direct relationship with intentions to stop out, with one of these, "expectations of attending college," showing a direct relationship with intentions of institutional persistence. The path model for intentions of immediate transfer showed that of the collegiate experience variables that were the most influential upon the dependent variable were "family encouragement," "satisfaction with curriculum," "sense of belonging," "satisfaction with academics," "satisfaction with relationships," "confidence in choice of major," "confidence in ability," and "sense of entitlement." Of the 12 pre-collegiate variables in the final model, those with the largest number correlations of collegiate variables were "father's education," "certainty of major," and "parents' expectations of attending college." These variables accounted for almost half of the significant correlations between pre-collegiate and collegiate variables. Only one of these, "expectations of attending college," showed a significant direct relationship with intentions of immediate transfer. For the "intentions of stopping out" model, collegiate experience variables that were the most significant were "difficulty in transferring" and "family obligations." Three of the 6 pre-collegiate variables included in the model showed a significant direct relationship with intentions to stop out. These were "English

primary," "expectations of attending college," and "distance." For intentions of delayed transfer, the most significant collegiate experience variables were "sense of belonging," "satisfaction with academics," and "sense of options." The path model for intentions of dropping out identified "sense of belonging," "confidence in decision to attend," "importance of degree," and "confidence in ability" as the most significant collegiate experience variables. Of the pre-collegiate variables included in the model, "expectations of attending college" and "percent of friends" exhibited a significant direct relationship with the dependent variable, "intentions of dropping out."

Prior research concerning demographic variables that are related to college persistence has resulted in the identification of some significant factors that were included in this study of a closely related topic, persistence intentions. The consistency of the findings of this study regarding the effects of these variables on persistence intentions as compared to previous research in persistence is noteworthy. Many of the variables identified as influential in determining persistence by Cabrera, Casteneada, Nora, and Hengstler (1992) also were found to be significant with regard to particular forms of persistence intentions. Specifically, for the resulting model of intentions to persist, whether at the same institution or at a different institution, of the 39 variables considered 25 and 19 variables respectively were found to be statistically significant. This consistency was also found in the results for the model of undecided intentions. The findings here relating to these specific persistence intentions were substantially consistent with previous findings for persistence behaviors. In contrast to previous persistence findings, however, were the results for the other intentions models. Models for intentions to stop out, whether returning to the same institution or a different institution, yielded

noticeably different results. Of the 39 variables under consideration, only 8 and 11 respectively were found to be influential. This was also observed in the results for intentions of dropping out which yielded only 11 significant variables. This contrast between the results for persistence intentions and the results for intentions of stopping out or dropping out highlighted an observable distinction between these two genres of intentions. Prior research in persistence suggested the need to investigate different specific types of persistence behaviors (Tinto, 1987; Carpenter & Fleishman, 1987). Particularly, the need to distinguish differences between those who leave a particular institution and those who withdraw completely from higher education has been identified (Tinto, 1993). The differing characteristics of the models of persistence intentions derived in this study support the assertion of the significance of the differences in these forms of persistence intentions and subsequent persistence behaviors. The findings of this study in this regard confirmed and supported the need to make these distinctions in research pertaining to persistence intentions and as well as persistence behaviors.

As mentioned, prior research in college persistence has resulted in the identification of some demographic variables of significance included in this study of persistence intentions. Among these are ethnicity, gender, high school grades, and achievement test scores (Astin,1993). The significance of these variables in the resulting models of persistence intention presented in this study, however, was shown to be minimal. While ethnicity, gender, high school grades, and achievement test scores were found to be significant factors in some of the models, and were consistent with previous research pertaining to these factors (Astin, 1993), the significance of these factors was not consistent among all models of persistence intentions. This finding lends credence to

the need to distinguish among different types of persistence intentions and behaviors. Gender and ethnicity were found to be significant variables only in influencing intentions to persist at the same institution and in undecided intentions. These variables were not found to be significant in any of the other four models. Likewise, ACT score was found to be significant in influencing the intention to stop out and return to the same institution but was not found to be significant in any of the other five models of persistence intentions. GPA was not identified as a significant factor in any of the persistence intention models developed in this study. For these variables, the findings for persistence intentions indicated a noteworthy departure from the findings of prior research in persistence and attrition behaviors. The varied degree to which these variables contributed to any particular model of intentions highlighted the observed differences in the development of particular forms of persistence intentions and behaviors. This observation suggested that the findings, in some instances, were not supportive of previous research in this regard due to the specific distinctions in persistence intentions examined in this study. Additionally, Peng and Fetters (1978) concluded that SES, educational aspirations, and availability of financial aid to be significant predictor variables for college persistence and attrition behaviors. The findings of this study supported the importance of the availability of scholarships and loans in determining persistence in that these factors emerged in the resulting models for persistence, whether at the same institution or at a different institution, and in the model for intentions to drop out. In contrast to the identified importance of SES in persistence behaviors, however, income was not identified as a significant variable in any of the models persistence intentions models in this study. While economic factors were found to play a prominent

role in the models developed in this study, the importance of these factors was observed to be manifested primarily through the availability of loans and scholarships rather than by reported income. These findings supported the assertions of Astin (1975) regarding the importance of financial factors in higher education departure decisions. Likewise, the significant effects of parental education on participation in higher education also have been identified by Anderson, Bowman, and Tinto (1972). Borus and Carpenter (1984) also found that both the father's and mother's education was a major influence on college attendance. The resulting models of intentions developed here supported the importance of these factors in influencing college persistence intentions. The mother's education, particularly, was identified for inclusion in five of the six path models highlighting the importance of this factor in persistence intentions as well as in the actual behaviors.

Particularly noteworthy in comparing the findings of this study to existing persistence research was the substantial influence which the variables of "expectations of attending college," "quality of guidance," and "certainty of major" exert on persistence intentions. "Expectations" and "quality of guidance" were identified as significant factors in every model of persistence intentions developed in this study. The prominence of the expectations variable in these results was consistent with the prior research indicating the significant role of educational aspirations (Peng & Fetters, 1978). "Quality of guidance" was identified for inclusion in five of the six models. These variables were found to have an almost universal significance in influencing all forms of persistence intentions and indicated a more prominent role than is typically identified in existing persistence research.

It is useful at this point to provide an indication not only of the strength of these correlations but also of the nature of such relationships, i.e., whether these are positive or negative correlations.

Interpretation of the Models

Comparing the final path models for intentions to persist, the following observations are noteworthy. Two of the models, intentions of institutional persistence and intentions of immediate transfer were somewhat similar in both complexity, i.e., the number of variables and paths involved, and in the specific variables and paths determined to be of significance. These similarities may be reflective of the fact that they both indicated intentions to persist in higher education, either at the same institution or at a different institution. Of the eight collegiate experiences variables found in the path model for intentions of immediate transfer, all eight were found in the institutional persistence model as well. In fact, the institutional persistence model included only two additional college variables. Likewise, all of the pre-collegiate variables for immediate transfer were encompassed in the institutional persistence model. From these shared variables, the addition of only four more pre-collegiate variables completed the institutional persistence model. Recognition of the large degree of commonality between these two models suggested identifying those variables differentiating the two. In this regard, it was noteworthy that the only collegiate variable distinguishing the institutional persistence model from the immediate transfer model was the variable relating to "confidence in the decision to attend." The inclusion of this variable and a pre-collegiate variable exhibiting a strong correlation with it, distance, suggested that the two persistence models, one inter-institutional and the other intra- institutional, differed

primarily in this regard. There was a significant negative correlation between distance and confidence in the decision to attend. In other words, low distance between the institution and the permanent residence of the student leads to greater confidence in the decision to attend. The positive correlation between confidence in the decision to attend and intentions to persist at the institution indicates that high confidence in the decision to attend, in turn, leads to a higher intention to persist at the institution. Alternatively, a large distance from residence leads to low confidence in the decision to attend, and subsequently, a low intention to persist at the institution. This interpretation is consistent with what one might expect intuitively. This was supportive of the assertion that these analyses represented accurate causal models for higher education persistence that differentiate between institutional and inter-institutional persistence.

To return to the comparison of the final path models for intentions to persist, two of the models, intentions of stopping out and intentions of delayed transfer were also somewhat similar in complexity. The intentions indicated by the dependent variables associated with these two models can be regarded as intentions of discontinuity in participation in higher education, one to stop out and return to the same institution and the other to stop out and return to a different institution. The number of variables and paths involved in these path models was far less than was required for the models of persistence previously discussed. While similar in the level of complexity, the models differed significantly in regard to the specific variables and paths found to be descriptive of the phenomena. The model for institutional stopping out identified two main pre-collegiate contributors to these intentions, “difficulty in transferring” and “family obligations.” Not surprisingly, family obligations can be seen as a major barrier to

participation in higher education and as a contributor to intentions to stop out. Additionally, the indication of the importance of "difficulty in transferring" contributed specifically to this type of stop out intention, i.e., the intent to stop out and to return at some point to the same institution.

The model for inter-institutional stopping out identified three main pre-collegiate precursors to these intentions. These are sense of belonging, satisfaction with academics, and sense of options. These pre-collegiate variables were clearly different than those identified for institutional stopping out. The collegiate variables identified here seem to relate more directly to a particular institution. Specifically, "sense of belonging" and "satisfaction with academics" may be interpreted as representing aspects of the relationship between the student and the institution. Noticeably, the "distance" variable emerged as playing a prominent role in both these models. In both, "distance" exhibited a significant direct relationship with the dependent variable. In both path models, the direct relationship between distance and the dependent variable was a positive correlation indicating that increased distance between the institution and the permanent residence of the student contributes to and increase likelihood of stopping out. For the dependent variable of stopping out and returning to the same institution, the collegiate variable of "difficulty in transferring" contributed as well, and differentiated these stop out models based on the opportunity to change institutions. Again, these relationships were consistent with what might be expected intuitively and tended to be supportive of the veracity of the models for intentions of stopping out.

An examination of the final path model for intentions of dropping out showed two collegiate variables, "satisfaction with curriculum" and "confidence in the decision to

attend," as significant contributors to intentions of dropping out of higher education. As indicated by the strongly negative correlations which these variables have with the dependent variable, dissatisfaction with the curriculum and low confidence in the decision to attend resulted in a high propensity for intentions to drop out. Notable in the final path model for this phenomenon was the substantial number of pre-collegiate variables that influenced these two collegiate experience variables. Nine of these background and pre-collegiate variables showed a statistically significant relationship with confidence in the decision to attend. These were "ethnicity," "certainty of major," "expectations," "quality of guidance," "satisfaction with high school life," "scholarships," "loans," "distance," and "years between graduation." Those influencing the collegiate variable of "satisfaction with curriculum" were "certainty of major," "expectations," "parents' expectations," and "quality of guidance." Clearly, "quality of guidance" and "certainty of major" can be interpreted as reflecting academic and goal clarity elements that might affect college experiences relating to satisfaction with curriculum. These same variables combined with external factors such as "scholarships," "loans," and "distance" as influences on confidence in the decision to attend. As might be expected, "certainty of major" and "quality of guidance" exhibited positive correlations with these collegiate variables, while "scholarships," "loans," and "distance" exhibited negative correlations. Three of these, "certainty of major," "expectations," and "quality of guidance," exhibited a strong relationship with both identified collegiate experience variables that lead to the intention of dropping out.

The path model for undecided intentions toward persistence in higher education showed that the most influential collegiate variables were "sense of belonging,"

"confidence in the decision to attend," "importance of degree," and "confidence in ability." While an interpretation of the model for undecided intentions may seem challenging, an examination of the main collegiate contributors for this state of intentions showed that they were reflective of and encompass academic, social, and self-efficacy factors. This also can be said of the background and pre-collegiate variables that were found to have significant influences on collegiate experiences. Perhaps the dominant characteristic of this particular model was that it reflected these diverse aspects of both pre-collegiate and collegiate experiences and suggested that a balance of positive and negative influences in all of these areas may have a net effect resulting in undecided intentions. Having addressed the interpretation of each of these persistence intention models, attention is now directed toward the significance and implications of these findings.

Conclusions

The findings of this study support the need to recognize distinctions among different types of persistence intentions and as well as persistence behaviors. The varied degree to which pre-collegiate and collegiate factors contributed to particular models of intentions identified these observed differences in the development of particular forms of persistence intentions. In addition, ACT score was found to have minimal influence on persistence intentions. Likewise, GPA was not shown to be a significant factor in any of the persistence intention models developed in this study. For these variables, the findings for persistence intentions represented a significant departure from the findings of prior research in college persistence behaviors. Income also was not found to be influential in any of the persistence intentions models developed in this study. While economic factors

were found to play a prominent role in influencing persistence intentions, the importance of these factors was observed only in relation to loans and scholarships and not in relation to reported income. Particularly noteworthy was the observed influence of "expectations of attending college," "quality of guidance," and "certainty of major" on persistence intentions. "Expectations" and "quality of guidance" were identified as major influences in every model of persistence intentions developed in this study. These variables were found to have an almost universal significance in influencing all forms of persistence intentions and indicated a more prominent role than is typically identified in existing persistence research.

Significance of the Findings

Prior research in the development of behavioral models such as the theory of planned behavior has led to the recognition of the importance of intentions in the determination of subsequent behavior (Ajzen, 1988). Much of the prior research in this area has been conducted within specific contexts. This study contributed to this body of research by providing an examination of behavioral intentions specifically within the context of higher education persistence intentions.

This study also contributed to existing research in higher education persistence by exploring in detail the nature of one significant component of prevailing higher education persistence models, i.e., that of intentions. Bean (1982) has identified intent to leave as the single best predictor of actual higher education persistence and attrition actions. Likewise, Carpenter and Fleishman (1987) found that the best predictor of actual college attendance was the intention to continue education. The analysis of persistence intentions presented in this study provided new insight specifically into the character and nature of

these intentions and in doing so provided new insight into this aspect of existing persistence research. The fact that the variables identified by prior research in higher education were found to be accurate predictors of persistence intentions supported the connection between intentions and actions proposed by Ajzen's Theory of Planned Behavior.

The fact that the significant variables influencing persistence intentions identified in this study represented multiple perspectives, i.e., psychological, sociological, economic, and organizational provided supportive evidence of the importance and value of adequate consideration of each of these perspectives in understanding the phenomenon of persistence intentions and ultimately of persistence itself. Of the significant variables identified in the model for intentions of institutional persistence, four were found to be representative of the psychological perspective, 12 of the sociological perspective, four of the economic perspective, and five of the organizational perspective. For the significant variables identified in the model of intentions of persistence at a different institution, three were classified as representative of the psychological perspective, nine were sociological, two were economic, and five were organizational. The number of psychological, sociological, economic, and organizational variables identified in the model for intentions of stopping out and returning to the same institution was three, three, one, and one respectively. Similarly, the resulting model for intentions of stopping out and returning to a different institution was four, three, two, and one respectively. The model for intentions of dropping out identified two psychological variables, four sociological variables, four economic variables, and two organizational variables. For undecided intentions, the numbers of identified significant variables associated with the

psychological, sociological, economic, and organizational perspectives were three, seven, four, and three respectively. Clearly, while the number of significant variables and the specific variables identified varied dramatically among models, the consistent representation of all of these perspectives was noteworthy. That is, all four of these perspectives, were represented in the identified significant variables influencing persistence intentions for all six of the models developed in this study. This observation was perhaps most striking when considering the less complex models, such as that for intentions to stop out and return to the same institution. Here, although only nine pre-collegiate and collegiate variables were determined to be statistically significant in influencing this intention, these variables still represented all four of the perspectives. One of objectives in selecting pre-collegiate and collegiate variables to be included in this study was to ensure that the multiplicity of perspectives identified by prior research in higher persistence was reflected in this investigation of higher education persistence intentions. The value of such an approach was reflected in the consistent emergence of the variables representing these various perspectives in the resulting models.

The distinctions in complexity and in the variables identified as significant in each of the persistence intentions models developed in this study provided credence to the identified need for distinguishing between different forms of persistence and attrition. These distinctions suggested the unique nature of each of the persistence intention models.

A high degree of commonality existed among the resulting models for intentions of persistence, whether at the same or at a different institution. This commonality extended also to the resulting model for undecided intentions. In all three cases, a large

number of the pre-collegiate and collegiate variables considered were found to be significant. This fact reflected consistency among the factors previously associated with persistence and the factors found to be of significance in predicting intentions to persist. Three notable exceptions were that, for these models, the variables of "income," "ACT," and "GPA" were not found to be significant factors relating to intentions which was not consistent with some of the research findings that related these variables to persistence behaviors. The results for models for intentions of stopping out, whether returning to the same institution or to a different institution, and for intentions dropping out, however, did not display this commonality with prior persistence research. In all three cases, less than half of the variables associated with persistence research literature proved to be an important factor in determining intention of this nature. This suggested that some of the factors that influence the actual behavior of leaving college may not influence intentions, for example whether or not to return to college at some later time. Notably, the mother's education, certainty of major, expectations of attending college, quality of guidance, and delayed entry into higher education were found to be of significance across all persistence intentions models. Again, the observed differences among persistence intentions models found in this study was supportive evidence for distinguishing among specific forms of persistence intentions and behaviors.

Implications

A review and comparison to the final path models that have emerged indicated that many factors have been shown to affect intentions to persist while fewer factors have been shown to significantly influence departure whether that departure is of a permanent or temporary nature. This can be seen from the number of variables and paths that were

descriptive of the persistence intentions compared to those for stopping out or dropping out. These results suggested that there may be varying degrees of complexity associated with the different persistence intention phenomena as well as different levels of complexity associated with the paths that lead to these outcomes. For example, the final path models for intentions of institutional persistence and intentions of immediate transfer, both representing forms of continuity in higher education participation, encompassed ten and eight collegiate experience variables respectively. The models that represented some form of discontinuity in participation, i.e., for stopping out and returning to the same institution, stopping out and returning to a different institution, and dropping out, encompassed only two, three, and two collegiate experience variables. Likewise, for the persistence intentions models, the number of background and pre-collegiate variables involved was 16 and 12 respectively. The number of background and collegiate variables required for the models stop out and drop out path models reflect was only six, eight, and ten respectively. A comparison of the number of significant relationships for the persistence intentions models to the number of relationships for the non-persistence intentions provided an even more dramatic indication of this difference. Even more informative was the observation that the variables identified as influential in determining persistence intention outcomes varied across the models. While the similarities between the models of institutional and inter-institutional persistence were noted, the influential variables associated with the models on non-persistence were not only more limited, but were also different variables. In fact, the identified influences varied even among the models of non-persistence. This observation has potential implications for changing the way in which college persistence is viewed and suggests

alternative approaches to preventing intentions of stopping out or dropping out. For example, in examining the path model for institutional persistence intentions, there were many variables and paths that contributed to this outcome. Initiatives directed at improvements in the variables identified by these paths have the potential for increasing the likelihood of intentions of institutional persistence. As noted, for this particular model, the complexity of the model including so many variables and paths suggested, in turn, many such initiatives. In other words, the complexity of the model also may be some indicator of the complexity associated with affecting improvements in the likelihood of those outcomes. On the other hand, consider the model for intentions of institutional stop out. This path model was much more narrowly defined and consequently targeted fewer variables and paths as influential in the development of these intentions. Initiatives directed at the influences identified here would be much more specific and limited in scope. For example, in considering ways of increasing the likelihood of intentions to persist and decreasing the likelihood of stopping out, one might compare the path model for institutional persistence intentions and the model for institutional stop out intentions. The model for institutional persistence intentions would suggest initiatives directed at improvements in factors contributing to ten different aspects of the collegiate experience. Alternatively, the path model for institutional stop out would suggest efforts be directed at only two aspects of the college experience, and notably different aspects than those above, that are directly related to the development of these intentions. The latter may represent a more direct, efficient, and effective approach to addressing these issues. In practice, this might translate to considering the availability of evening or weekend classes, online classes, or independent study classes as ways of

minimizing factors of commuting and family obligations. Particularly, where "family obligations" and "sense of options" have emerged as significant influences on intentions, the availability of asynchronous learning opportunities might warrant additional consideration. On the other hand, opportunities such as these are not likely to contribute to a sense of belonging which was also shown to be influential in some of these same models. Nonetheless, the models resulting from this study assisted in identifying and targeting specific initiatives in these terms.

Notable among these findings were the strong influences of a student's expectations of attending college, quality of advisement, and certainty of major. Equally notable was the observed lack of influence of the ACT and GPA variables on persistence intentions. These observations suggested direct implications for society, higher education institutions, and students. One such implication was that society must promote and support higher expectations not only through the availability of scholarship and loans, but also by ensuring that pre-collegiate experiences include opportunities for students to explore different college majors and career options. These opportunities coupled with quality pre-collegiate academic guidance can serve to prepare students, not only to pursue their career goals, but also to contribute to society.

Implications of this study also exist for higher education institutions. One such implication is that admissions procedures look beyond traditional measures such as ACT scores and GPA, and ensure commitment to quality advisement. This commitment to academic and career guidance can serve to identify a career path, a college major, and ultimately contribute significantly to the intention to persist in higher education. These

advisement efforts may also serve to provide information about financial aid resources which would promote the retention of students.

The findings of this study also suggest implications for parents and for students. The models of persistence intentions developed in this study highlight the importance of expectations of attending college. It is important that parents have an awareness of the importance of their role in the development of these expectations. This study also holds important implications for pre-collegiate students by identifying the value of quality advisement in promoting the development of clear career goals and certainty in their choice of major.

Recommendations for Future Research

Recommendations for additional research in the area of higher education persistence intentions addressed in this study include the consideration of additional variables, involving both the pre-collegiate and collegiate experiences that might identify other significant contributors to these intentions. Additionally, given the complexity of some of the path models that emerged from this study, consideration of the possibility of combining some of the variables utilized in this study into fewer and more general constructs may be of benefit trying to identify more parsimonious models in these cases. The methodology of this study also might be applied in the investigation of the persistence intentions for other higher education populations such as community colleges and regional colleges to investigate the similarities and differences among the models presented here those that would result from these populations. An extension of the findings of this study into a longitudinal study investigating the degree to which these intentions culminate in the associated actual behavior of persistence would also be of

great value in advancing our knowledge and understanding of the role of intentions in higher education persistence. In addition, follow-up contact with students who are leaving the institution needs to be conducted with the objective of identifying the character and nature of that departure, i.e., the intentions that underlie that departure. Initiatives of this nature have the potential for serving both the student and the institution. First, this process may identify previously unidentified options, alternatives, and resources relevant to those departure intentions. For example, through this interaction the student may become aware of additional distance learning alternatives, financial aid resources, academic support resources, or guidance resources. In addition, specific information regarding satisfaction with curriculum or academics might prove informative to faculty from an organizational or instructional perspective. Additionally, this interaction would have the potential for providing the institution with invaluable information with regard to potential student affairs initiatives of this nature. Clearly, the distinctions provided by this kind of information represent the opportunity to develop a deeper understanding of these persistence and attrition behaviors and to identify specific initiatives for addressing barriers to college persistence. Efforts to investigate these intentions directly with departing students also provides the level of information that is required in order to affect meaningful changes in higher education or in a particular higher education institution. Understanding the intentions that are the underpinnings of the departure behavior present the greatest opportunities for directing specific actions directed toward promoting college persistence.

Summary

This study utilized the background, pre-collegiate experience, and collegiate experience data reported by freshman and sophomore students at a four year higher education institution in the development and evaluation of path models for intentions to persist in higher education. The analysis resulted in causal models related to the intentions of persistence at the same institution, persistence at a different institution, stopping out and returning to the same institution, stopping out and returning to a different institution, dropping out, and undecided intentions.

The development of a model for intentions to persist at the same institution resulted in the identification of ten collegiate variables and 16 pre-collegiate variables that influence these intentions. The variables having the greatest total effect on the intention to persist at the same institution were "expectations of attending college," "family encouragement," and "satisfaction with curriculum." The model also identified "certainty of major" and "quality of guidance" as prominent variables relating to this intention. These results suggested the importance of goal clarity in the development of intentions to persist in higher education.

The model for intentions to persist at a different institution resulted in the identification of eight significant collegiate experience variables and twelve pre-collegiate variables. Among these, "family encouragement" had the greatest total effect on the intention to persist at a different institution. "Satisfaction with curriculum" and "expectations of attending college" were also shown to have strong influences on this persistence intention. This model, as well as the previous model of persistence

highlighted a strong relationship between expectations of attending college, family encouragement, and persistence intention.

The model for intention to stop out consisted of two college experience variables and six background and pre-collegiate variables. The significant college experience variables were "difficulty in transferring" and "family obligations." The identified pre-collegiate variables were "mother's education," "English primary," "expectations of attending college," "quality of guidance," "ACT," and "distance." For the model of intentions of delayed transfer, three collegiate experience and eight pre-collegiate variables retained. The collegiate variables showing the greatest significance in influencing this persistence intention were "distance," and "years between graduation." The limited number of variables associated with both of these models for intentions to stop out highlighted these factors as barriers to intentions to persist.

The results for intentions to drop out produced a model consisting of two collegiate variables and ten pre-collegiate variables, the most notable of which were "satisfaction with curriculum" and "confidence in decision to attend." The model for undecided intentions showed "expectations of attending college" and "percent of friends" as having the greatest total effect on this dependent variable.

While all path models exhibited substantial accuracy in representing the data for the specific persistence intention of interest, the methodology utilized resulted in a minimal reduction in the number of variables in the some of the path models. The models for persistence intentions, whether at the same institution or a different institution, as well as the model for undecided intentions exhibited a good deal of complexity both in the number of variables retained and in the number of associated significant paths. The

path models for stopping out and dropping out, however, showed a limited number of variables and paths in describing these persistence intention outcomes. Also notable in considering the results for stopping out and dropping out was the variability in the collegiate variables that were influential. This differentiation identified specific factors that were influential to these specific forms of departure. While the collegiate experience variables involved varied noticeably among the models, several background and pre-collegiate experience variables appeared consistently among the models. These were "mother's education," "certainty of major," "expectations of attending college," "quality of guidance," "satisfaction with high school life," "distance," and "years between graduation." This observation highlighted the relevance of the factors to all of the persistence intention dependent variables.

The study presented here was intended to contribute to research in higher education persistence though the development of path models for these intentions. These models were developed in the effort to enhance knowledge and understanding of the character and nature of persistence and departure decisions among college students. The study presented here represented an attempt to look deeper into higher education persistence and attrition phenomena by examining, analyzing, and modeling the academic intentions underlying those actions. An examination of the background, pre-collegiate, and collegiate factors encompassed in this study and their role in the development of academic intentions of students regarding higher education provided causal models that can be used to guide our understanding of intentions regarding participation in higher education for freshman and sophomore students. While college persistence and subsequent graduation are still challenges facing American higher education, the pursuit

of a deeper understanding of the character and nature of these constructs offers the hope of addressing these challenges to the benefit of all concerned.

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Appendix A: The Survey Instrument

Demographic Information

1. Classification a. freshman b. sophomore

2. Gender a. male b. female

3. I consider my ethnicity to be a. white b. black c. hispanic d. native american e. asian f. other

4. Father's education a. no H.S. diploma b. H.S. diploma c. Associate's degree
d. Bachelor's degree e. Master's degree f. Doctoral degree

5. Mother's education a. no H.S. diploma b. H.S. diploma c. Associate's degree
d. Bachelor's degree e. Master's degree f. Doctoral degree

6. I consider English to be my primary language a. Yes b. No

7. Approximate size of city of permanent residence a. less than 10,000 b. 10,001 to 100,000
c. 100,001 to 250,000 d. over 500,000

8. Approximate annual family income $ _____ per year

9. Approximate size of high school graduating class _____ students

High School Experiences

Please rate on a scale of 1 to 5 (with 5 being the highest):

1 2 3 4 5 10. My certainty regarding major/career choice was

1 2 3 4 5 11. My expectations of attending college were

1 2 3 4 5 12. My parent's expectations of me attending college were

1 2 3 4 5 13. The quality of guidance counseling which I received in high school concerning college options

1 2 3 4 5 14. Satisfaction with high school life was

15. Approximate percentage of friends who planned to attend college is _____ %

16. I received scholarship(s) to attend college which would cover approximately _____ % of the costs

17. I received loan(s) to attend college which would cover approximately _____ % of the costs

18. My approximate ACT score was _____

19. My approximate overall H.S. GPA was _____

20. The approximate distance from my city of residence to college was _____ miles

21. Number of years between graduating high school and entering college was _____ years

College Experiences

Please rate on a scale of 1 to 5 (with 5 being the highest):

1	2	3	4	5	22. My family's encouragement to continue attending this university
1	2	3	4	5	23. My satisfaction with the amount of financial support I have received while attending this university
1	2	3	4	5	24. The difficulty involved in transferring to another college, university, or junior college
1	2	3	4	5	25. My satisfaction with my courses and curriculum
1	2	3	4	5	26. My close friends encouragement to continue attending college
1	2	3	4	5	27. My sense of belonging at this university
1	2	3	4	5	28. My satisfaction with my academic experience
1	2	3	4	5	29. My satisfaction with the personal relationships I have developed with other students
1	2	3	4	5	30. My confidence in the decision to attend college
1	2	3	4	5	31. The importance to me of getting a college degree
1	2	3	4	5	32. My sense of having sufficient options concerning my college experience
1	2	3	4	5	33. My confidence in my choice of major
1	2	3	4	5	34. The difficulty involved in meeting work obligations while attending college
1	2	3	4	5	35. The difficulty involved in meeting family obligations while attending college
1	2	3	4	5	36. My confidence in my ability to be academically successful in college
1	2	3	4	5	37. My satisfaction with opportunity for academic support such as tutoring and study groups
1	2	3	4	5	38. My confidence that getting a college degree will be financially worth the investment
1	2	3	4	5	39. My sense of entitlement

Future Academic Plans

What percent likelihood would you assign to each of the following in describing your intentions regarding future college enrollment?

40. My intention is to continue attending this institution next semester _____ %

41. My intention is to transfer to another college/university next semester _____ %

42. My intention is to continue attending this institution, but not next semester _____ %

43. My intention is to transfer to another college/university, but not next semester _____ %

44. My intention is to not attend a college/university in the future. _____ %

45. I am undecided in my intentions regarding college/university attendance in the future _____ %

Appendix B: Descriptive Statistics

	N	Mean	Std. Deviation
x1 Classification	368	1.54	.499
x2 Gender	370	1.65	.479
x3 Ethnicity	370	1.82	1.520
x4 Fathers education	366	3.60	1.363
x5 Mothers education	370	3.40	1.224
x6 English primary	368	1.05	.227
x7 Size of city	368	2.53	.995
x8 Income	259	130661.12	327191.191
x9 Size of hs	352	411.87	293.908
x10 Certainty of major	340	3.91	1.162
x11 Expectations of attending college	340	4.67	.681
x12 Parents expectations of attending college	339	4.79	.630
x13 Quality of guidance	340	3.19	1.311
x14 Satisfaction with hs life	337	3.76	1.117
x15 Pct of friends	311	84.38	22.223
x16 Scholarships	291	38.45	37.626
x17 Loans	270	22.95	34.203
x18 ACT	297	26.70	4.804
x19 GPA	295	3.67	.376
x20 Distance	313	272.02	780.070
x21 Years between grad	327	.36	1.744
x22 Family encouragement	320	4.58	.834
x23 Financial support	320	3.35	1.382
x24 Difficulty in transferring	288	2.49	1.285
x25 Satisfaction with curriculum	320	3.74	.919
x26 Friends encouragement	318	4.30	1.022
x27 Sense of belonging	321	3.71	1.273
x28 Satisfaction with academic experience	321	3.88	1.016
x29 Satisfaction with relationships	317	3.93	1.190
x30 Confidence decision to attend	319	4.58	.800
x31 Importance of degree	318	4.72	.707
x32 Sense of options	319	4.15	.970
x33 Confidence in choice of major	320	4.08	1.057

x34 Work obligations	306	3.10	1.356
x35 Family obligations	312	2.99	1.278
x36 Confidence in ability	319	4.03	.945
x37 Satisfaction with academic support	314	3.68	1.003
x38 Confidence that worth the investment	319	4.37	1.010
x39 Sense of entitlement	316	3.86	1.192
x40 Continue next semester	314	92.82	22.819
x41 Transfer next semester	312	6.42	21.524
x42 Continue not next semester	304	6.17	22.175
x43 Tansfer not next semester	308	7.96	21.806
x44 Not attend	306	6.75	23.631
x45 Undecided	298	4.81	17.593

Appendix C: Correlation Matrix

		x1 Classification	x2 Gender	x3 Ethnicity	x4 Fathers education	x5 Mothers education
x1 Classification	Pearson Correlation	1	.053	-.034	-.037	.050
	Sig. (2-tailed)		.315	.512	.486	.341
	N	368	367	367	364	367
x2 Gender	Pearson Correlation	.053	1	.036	-.078	-.016
	Sig. (2-tailed)	.315		.486	.137	.756
	N	367	370	369	365	369
x3 Ethnicity	Pearson Correlation	-.034	.036	1	-.144**	-.196**
	Sig. (2-tailed)	.512	.486		.006	.000
	N	367	369	370	365	369
x4 Fathers education	Pearson Correlation	-.037	-.078	-.144**	1	.447**
	Sig. (2-tailed)	.486	.137	.006		.000
	N	364	365	365	366	366
x5 Mothers education	Pearson Correlation	.050	-.016	-.196**	.447**	1
	Sig. (2-tailed)	.341	.756	.000	.000	
	N	367	369	369	366	370
x6 English primary	Pearson Correlation	-.066	-.050	.396**	-.080	-.098
	Sig. (2-tailed)	.206	.344	.000	.127	.062
	N	365	367	367	363	367
x7 Size of city	Pearson Correlation	.002	.015	.041	.168**	.146**
	Sig. (2-tailed)	.963	.781	.428	.001	.005
	N	365	367	367	363	367
x8 Income	Pearson Correlation	.036	.054	-.075	.155*	.101
	Sig. (2-tailed)	.563	.385	.231	.013	.103
	N	257	259	259	256	259
x9 Size of hs	Pearson Correlation	.013	-.072	.043	.158**	.027
	Sig. (2-tailed)	.809	.174	.424	.003	.612
	N	352	354	354	351	355
x10 Certainty of major	Pearson Correlation	-.004	.089	-.007	-.034	-.037
	Sig. (2-tailed)	.937	.102	.904	.534	.494
	N	338	339	339	337	339
x11 Expectations of attending college	Pearson Correlation	-.111*	.030	-.024	.049	.100
	Sig. (2-tailed)	.042	.576	.659	.367	.066
	N	338	339	339	337	339
x12 Parents expectations of attending college	Pearson Correlation	.039	-.033	-.004	.180**	.164**
	Sig. (2-tailed)	.475	.542	.935	.001	.002
	N	337	338	338	336	338
x13 Quality of guidance	Pearson Correlation	-.043	-.077	.018	.090	.033
	Sig. (2-tailed)	.433	.156	.742	.098	.539
	N	338	339	339	337	339
x14 Satisfaction with hs life	Pearson Correlation	-.026	.050	.024	.014	.067
	Sig. (2-tailed)	.629	.359	.662	.803	.218
	N	335	336	336	334	336
x15 Pct of friends	Pearson Correlation	-.035	.064	-.109	.239**	.225**
	Sig. (2-tailed)	.541	.262	.055	.000	.000
	N	309	311	310	309	311

		x6 English primary	x7 Size of city	x8 Income	x9 Size of hs	x10 Certainty of major
x1 Classification	Pearson Correlation	-.066	.002	.036	.013	-.004
	Sig. (2-tailed)	.206	.963	.563	.809	.937
	N	365	365	257	352	338
x2 Gender	Pearson Correlation	-.050	.015	.054	-.072	.089
	Sig. (2-tailed)	.344	.781	.385	.174	.102
	N	367	367	259	354	339
x3 Ethnicity	Pearson Correlation	.396**	.041	-.075	.043	-.007
	Sig. (2-tailed)	.000	.428	.231	.424	.904
	N	367	367	259	354	339
x4 Fathers education	Pearson Correlation	-.080	.168**	.155*	.158**	-.034
	Sig. (2-tailed)	.127	.001	.013	.003	.534
	N	363	363	256	351	337
x5 Mothers education	Pearson Correlation	-.098	.146**	.101	.027	-.037
	Sig. (2-tailed)	.062	.005	.103	.612	.494
	N	367	367	259	355	339
x6 English primary	Pearson Correlation	1	.100	-.051	.262**	.105
	Sig. (2-tailed)		.055	.416	.000	.055
	N	368	366	259	353	338
x7 Size of city	Pearson Correlation	.100	1	.110	.081	.030
	Sig. (2-tailed)	.055		.078	.129	.589
	N	366	368	258	353	338
x8 Income	Pearson Correlation	-.051	.110	1	-.020	.058
	Sig. (2-tailed)	.416	.078		.745	.368
	N	259	258	259	257	244
x9 Size of hs	Pearson Correlation	.262**	.081	-.020	1	-.028
	Sig. (2-tailed)	.000	.129	.745		.611
	N	353	353	257	355	328
x10 Certainty of major	Pearson Correlation	.105	.030	.058	-.028	1
	Sig. (2-tailed)	.055	.589	.368	.611	
	N	338	338	244	328	340
x11 Expectations of attending college	Pearson Correlation	.014	.082	.074	.099	.142**
	Sig. (2-tailed)	.799	.133	.248	.072	.009
	N	338	338	244	328	339
x12 Parents expectations of attending college	Pearson Correlation	.046	.152**	.073	.100	-.006
	Sig. (2-tailed)	.400	.005	.255	.071	.911
	N	337	337	243	327	338
x13 Quality of guidance	Pearson Correlation	.116*	.215**	.062	-.016	.236**
	Sig. (2-tailed)	.034	.000	.335	.772	.000
	N	338	338	244	328	339
x14 Satisfaction with hs life	Pearson Correlation	.059	.128*	.054	.016	.152**
	Sig. (2-tailed)	.285	.019	.402	.768	.005
	N	335	336	243	325	336
x15 Pct of friends	Pearson Correlation	-.057	.341**	.108	.148*	-.004
	Sig. (2-tailed)	.321	.000	.100	.010	.941
	N	309	309	231	302	309

		x11 Expectations of attending college	x12 Parents expectations of attending college	x13 Quality of guidance	x14 Satisfaction with hs life	x15 Pct of friends
x1 Classification	Pearson Correlation	-.111*	.039	-.043	-.026	-.035
	Sig. (2-tailed)	.042	.475	.433	.629	.541
	N	338	337	338	335	309
x2 Gender	Pearson Correlation	.030	-.033	-.077	.050	.064
	Sig. (2-tailed)	.576	.542	.156	.359	.262
	N	339	338	339	336	311
x3 Ethnicity	Pearson Correlation	-.024	-.004	.018	.024	-.109
	Sig. (2-tailed)	.659	.935	.742	.662	.055
	N	339	338	339	336	310
x4 Fathers education	Pearson Correlation	.049	.180**	.090	.014	.239**
	Sig. (2-tailed)	.367	.001	.098	.803	.000
	N	337	336	337	334	309
x5 Mothers education	Pearson Correlation	.100	.164**	.033	.067	.225**
	Sig. (2-tailed)	.066	.002	.539	.218	.000
	N	339	338	339	336	311
x6 English primary	Pearson Correlation	.014	.046	.116*	.059	-.057
	Sig. (2-tailed)	.799	.400	.034	.285	.321
	N	338	337	338	335	309
x7 Size of city	Pearson Correlation	.082	.152**	.215**	.128*	.341**
	Sig. (2-tailed)	.133	.005	.000	.019	.000
	N	338	337	338	336	309
x8 Income	Pearson Correlation	.074	.073	.062	.054	.108
	Sig. (2-tailed)	.248	.255	.335	.402	.100
	N	244	243	244	243	231
x9 Size of hs	Pearson Correlation	.099	.100	-.016	.016	.148*
	Sig. (2-tailed)	.072	.071	.772	.768	.010
	N	328	327	328	325	302
x10 Certainty of major	Pearson Correlation	.142**	-.006	.236**	.152**	-.004
	Sig. (2-tailed)	.009	.911	.000	.005	.941
	N	339	338	339	336	309
x11 Expectations of attending college	Pearson Correlation	1	.300**	.067	.137*	.105
	Sig. (2-tailed)		.000	.215	.012	.065
	N	340	339	340	337	310
x12 Parents expectations of attending college	Pearson Correlation	.300**	1	.238**	.210**	.327**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	339	339	339	336	309
x13 Quality of guidance	Pearson Correlation	.067	.238**	1	.454**	.143*
	Sig. (2-tailed)	.215	.000		.000	.012
	N	340	339	340	337	310
x14 Satisfaction with hs life	Pearson Correlation	.137*	.210**	.454**	1	.253**
	Sig. (2-tailed)	.012	.000	.000		.000
	N	337	336	337	337	307
x15 Pct of friends	Pearson Correlation	.105	.327**	.143*	.253**	1
	Sig. (2-tailed)	.065	.000	.012	.000	
	N	310	309	310	307	311

		x16 Scholarships	x17 Loans	x18 ACT	x19 GPA	x20 Distance
x1 Classification	Pearson Correlation	-.064	-.007	-.016	.052	-.107
	Sig. (2-tailed)	.275	.911	.790	.354	.059
	N	291	272	296	326	311
x2 Gender	Pearson Correlation	.040	.063	.019	.040	.021
	Sig. (2-tailed)	.500	.303	.744	.476	.715
	N	293	273	296	327	313
x3 Ethnicity	Pearson Correlation	.090	.046	-.095	-.031	.077
	Sig. (2-tailed)	.125	.452	.102	.570	.175
	N	292	273	297	327	312
x4 Fathers education	Pearson Correlation	.058	-.005	.174**	-.023	.018
	Sig. (2-tailed)	.326	.929	.003	.685	.752
	N	290	270	294	325	310
x5 Mothers education	Pearson Correlation	-.019	-.060	.255**	.072	.091
	Sig. (2-tailed)	.752	.323	.000	.196	.110
	N	292	272	296	327	312
x6 English primary	Pearson Correlation	-.011	-.018	-.121*	-.012	.171**
	Sig. (2-tailed)	.856	.773	.038	.836	.003
	N	293	272	295	326	311
x7 Size of city	Pearson Correlation	-.095	-.131*	.062	.029	.092
	Sig. (2-tailed)	.107	.032	.283	.607	.104
	N	291	271	297	326	311
x8 Income	Pearson Correlation	-.003	-.019	.070	-.014	.031
	Sig. (2-tailed)	.963	.779	.301	.835	.631
	N	228	212	221	240	236
x9 Size of hs	Pearson Correlation	-.043	-.086	.031	-.019	-.029
	Sig. (2-tailed)	.470	.163	.597	.731	.610
	N	284	266	288	319	304
x10 Certainty of major	Pearson Correlation	-.145*	-.066	-.054	-.091	-.005
	Sig. (2-tailed)	.013	.277	.358	.102	.928
	N	291	271	295	326	311
x11 Expectations of attending college	Pearson Correlation	.030	.041	.106	.020	.001
	Sig. (2-tailed)	.615	.501	.069	.712	.980
	N	292	272	296	327	312
x12 Parents expectations of attending college	Pearson Correlation	.020	.027	.273**	.021	.059
	Sig. (2-tailed)	.735	.652	.000	.711	.304
	N	291	271	295	326	311
x13 Quality of guidance	Pearson Correlation	-.056	.015	.153**	-.057	.013
	Sig. (2-tailed)	.338	.801	.008	.303	.817
	N	292	272	296	327	312
x14 Satisfaction with hs life	Pearson Correlation	-.040	.014	.038	.055	.035
	Sig. (2-tailed)	.501	.819	.522	.327	.539
	N	289	269	294	324	309
x15 Pct of friends	Pearson Correlation	.015	.021	.176**	.040	.031
	Sig. (2-tailed)	.806	.736	.004	.485	.598
	N	289	267	272	301	292

		x21 Years between grad	x22 Family encouragement	x23 Financial support	x24 Difficulty in transferring	x25 Satisfaction with curriculum
x1 Classification	Pearson Correlation	-.005	.090	.017	-.043	-.100
	Sig. (2-tailed)	.929	.109	.769	.466	.075
	N	328	318	318	286	318
x2 Gender	Pearson Correlation	-.108	.072	-.033	.016	.067
	Sig. (2-tailed)	.050	.199	.563	.781	.234
	N	329	319	319	287	320
x3 Ethnicity	Pearson Correlation	-.037	.014	.063	.044	-.066
	Sig. (2-tailed)	.509	.797	.264	.457	.240
	N	329	319	319	288	319
x4 Fathers education	Pearson Correlation	-.095	.112*	.015	-.059	.043
	Sig. (2-tailed)	.086	.047	.791	.316	.450
	N	327	317	317	286	317
x5 Mothers education	Pearson Correlation	.100	.125*	-.073	-.097	.050
	Sig. (2-tailed)	.070	.026	.192	.102	.371
	N	329	319	319	288	319
x6 English primary	Pearson Correlation	-.007	.090	.044	-.039	.027
	Sig. (2-tailed)	.896	.110	.434	.514	.626
	N	328	319	319	287	319
x7 Size of city	Pearson Correlation	-.120*	.104	.023	-.108	-.009
	Sig. (2-tailed)	.029	.062	.680	.069	.874
	N	328	319	319	287	319
x8 Income	Pearson Correlation	-.019	.073	-.108	.001	.092
	Sig. (2-tailed)	.771	.269	.101	.987	.162
	N	242	231	232	216	232
x9 Size of hs	Pearson Correlation	-.075	.083	-.046	-.030	-.002
	Sig. (2-tailed)	.180	.144	.423	.619	.977
	N	320	310	310	279	310
x10 Certainty of major	Pearson Correlation	.038	.010	.134*	-.061	.224**
	Sig. (2-tailed)	.489	.863	.016	.307	.000
	N	329	318	318	286	318
x11 Expectations of attending college	Pearson Correlation	.036	.054	.037	-.068	.204**
	Sig. (2-tailed)	.511	.335	.510	.253	.000
	N	329	319	319	287	319
x12 Parents expectations of attending college	Pearson Correlation	.024	.321**	-.065	-.020	-.137*
	Sig. (2-tailed)	.670	.000	.247	.739	.014
	N	328	318	318	286	318
x13 Quality of guidance	Pearson Correlation	-.102	.125*	.197**	-.142*	.131*
	Sig. (2-tailed)	.064	.025	.000	.016	.019
	N	329	319	319	287	319
x14 Satisfaction with hs life	Pearson Correlation	-.123*	.131*	.092	-.027	.106
	Sig. (2-tailed)	.026	.020	.101	.653	.059
	N	326	317	317	285	317
x15 Pct of friends	Pearson Correlation	.040	.099	-.016	.012	.094
	Sig. (2-tailed)	.490	.092	.782	.844	.109
	N	303	293	293	267	294

		x26 Friends encouragement	x27 Sense of belonging	x28 Satisfaction with academic experience	x29 Satisfaction with relationships	x30 Confidence decision to attend
x1 Classification	Pearson Correlation	.002	-.017	-.046	.061	-.103
	Sig. (2-tailed)	.974	.766	.414	.278	.067
	N	316	319	319	315	317
x2 Gender	Pearson Correlation	.064	.020	.129*	.011	.096
	Sig. (2-tailed)	.256	.715	.021	.844	.085
	N	317	320	320	317	319
x3 Ethnicity	Pearson Correlation	-.052	-.050	-.074	-.065	-.125*
	Sig. (2-tailed)	.360	.369	.187	.251	.026
	N	317	320	320	316	318
x4 Fathers education	Pearson Correlation	-.024	.020	.054	.005	.059
	Sig. (2-tailed)	.670	.718	.337	.931	.294
	N	315	318	318	314	316
x5 Mothers education	Pearson Correlation	.037	.096	.145**	.102	.043
	Sig. (2-tailed)	.507	.085	.009	.071	.444
	N	317	320	320	316	318
x6 English primary	Pearson Correlation	-.047	-.002	.071	-.100	-.030
	Sig. (2-tailed)	.401	.968	.203	.075	.591
	N	317	320	320	316	318
x7 Size of city	Pearson Correlation	.185**	.077	.015	.089	.046
	Sig. (2-tailed)	.001	.168	.793	.113	.409
	N	317	320	320	316	318
x8 Income	Pearson Correlation	.077	.099	.088	.081	.057
	Sig. (2-tailed)	.244	.131	.180	.224	.388
	N	230	232	232	229	232
x9 Size of hs	Pearson Correlation	.128*	.009	-.040	.031	.006
	Sig. (2-tailed)	.025	.873	.477	.586	.920
	N	308	311	311	307	309
x10 Certainty of major	Pearson Correlation	.145**	.212**	.304**	.155**	.226**
	Sig. (2-tailed)	.010	.000	.000	.006	.000
	N	316	319	319	315	317
x11 Expectations of attending college	Pearson Correlation	.159**	.256**	.250**	.272**	.345**
	Sig. (2-tailed)	.005	.000	.000	.000	.000
	N	317	320	320	316	318
x12 Parents expectations of attending college	Pearson Correlation	.153**	.098	.061	.079	.044
	Sig. (2-tailed)	.007	.081	.277	.159	.435
	N	316	319	319	315	317
x13 Quality of guidance	Pearson Correlation	.202**	.223**	.222**	.209**	.161**
	Sig. (2-tailed)	.000	.000	.000	.000	.004
	N	317	320	320	316	318
x14 Satisfaction with hs life	Pearson Correlation	.216**	.165**	.171**	.146**	.178**
	Sig. (2-tailed)	.000	.003	.002	.010	.001
	N	315	318	318	314	316
x15 Pct of friends	Pearson Correlation	.214**	.133*	.059	.029	.023
	Sig. (2-tailed)	.000	.022	.316	.626	.694
	N	292	294	294	292	293

		x31 Importance of degree	x32 Sense of options	x33 Confidence in choice of major	x34 Work obligations	x35 Family obligations
x1 Classification	Pearson Correlation	-.010	-.077	.044	.159**	.082
	Sig. (2-tailed)	.860	.169	.437	.005	.151
	N	316	317	318	304	310
x2 Gender	Pearson Correlation	.220**	.066	.044	.092	.036
	Sig. (2-tailed)	.000	.243	.428	.110	.532
	N	318	319	320	306	312
x3 Ethnicity	Pearson Correlation	-.048	-.025	.061	.116*	.133*
	Sig. (2-tailed)	.394	.663	.274	.042	.019
	N	317	318	319	305	311
x4 Fathers education	Pearson Correlation	.041	-.022	-.031	-.158**	-.061
	Sig. (2-tailed)	.464	.695	.576	.006	.287
	N	315	316	317	303	309
x5 Mothers education	Pearson Correlation	.032	.016	-.075	-.249**	-.150**
	Sig. (2-tailed)	.574	.780	.181	.000	.008
	N	317	318	319	305	311
x6 English primary	Pearson Correlation	.016	.048	.120*	.046	.054
	Sig. (2-tailed)	.783	.389	.032	.426	.346
	N	317	318	319	305	311
x7 Size of city	Pearson Correlation	-.071	.083	.097	.010	-.027
	Sig. (2-tailed)	.205	.137	.084	.866	.640
	N	317	318	319	305	311
x8 Income	Pearson Correlation	.024	.068	.048	.035	.059
	Sig. (2-tailed)	.720	.304	.469	.607	.374
	N	231	232	232	223	229
x9 Size of hs	Pearson Correlation	.062	.054	.036	-.055	-.010
	Sig. (2-tailed)	.276	.342	.523	.348	.867
	N	308	309	310	296	302
x10 Certainty of major	Pearson Correlation	.150**	.248**	.671**	.032	-.038
	Sig. (2-tailed)	.007	.000	.000	.577	.510
	N	316	317	318	304	310
x11 Expectations of attending college	Pearson Correlation	.355**	.198**	.183**	-.147*	-.061
	Sig. (2-tailed)	.000	.000	.001	.010	.287
	N	317	318	319	305	311
x12 Parents expectations of attending college	Pearson Correlation	.107	.019	.023	.039	.069
	Sig. (2-tailed)	.058	.731	.678	.497	.223
	N	316	317	318	304	310
x13 Quality of guidance	Pearson Correlation	.057	.239**	.200**	-.072	.013
	Sig. (2-tailed)	.310	.000	.000	.207	.821
	N	317	318	319	305	311
x14 Satisfaction with hs life	Pearson Correlation	.024	.183**	.123*	-.176**	-.087
	Sig. (2-tailed)	.670	.001	.028	.002	.124
	N	315	316	317	303	310
x15 Pct of friends	Pearson Correlation	.018	-.001	.063	-.086	-.046
	Sig. (2-tailed)	.761	.984	.284	.152	.442
	N	292	293	294	281	286

		x36 Confidence in ability	x37 Satisfaction with academic support	x38 Confidence that worth the investment	x39 Sense of entitlement	x40 Continue next semester
x1 Classification	Pearson Correlation	-.091	-.039	-.009	-.043	-.015
	Sig. (2-tailed)	.106	.492	.877	.446	.788
	N	317	312	317	314	312
x2 Gender	Pearson Correlation	-.026	.004	.114*	.030	-.003
	Sig. (2-tailed)	.648	.946	.043	.591	.954
	N	319	314	319	316	313
x3 Ethnicity	Pearson Correlation	-.081	.036	-.032	-.067	.000
	Sig. (2-tailed)	.147	.529	.569	.233	.999
	N	318	313	318	315	313
x4 Fathers education	Pearson Correlation	.069	-.026	.022	-.026	.091
	Sig. (2-tailed)	.224	.649	.690	.649	.109
	N	316	311	316	313	311
x5 Mothers education	Pearson Correlation	.117*	-.021	.061	.058	.014
	Sig. (2-tailed)	.037	.710	.277	.304	.811
	N	318	313	318	315	313
x6 English primary	Pearson Correlation	.060	.035	.064	.091	-.024
	Sig. (2-tailed)	.283	.536	.253	.108	.678
	N	318	313	318	315	313
x7 Size of city	Pearson Correlation	.044	.071	.031	.059	.029
	Sig. (2-tailed)	.438	.210	.582	.298	.606
	N	318	313	318	315	313
x8 Income	Pearson Correlation	.081	.103	.090	.102	.035
	Sig. (2-tailed)	.218	.120	.173	.124	.601
	N	232	231	232	229	231
x9 Size of hs	Pearson Correlation	.112*	-.003	.064	-.034	.025
	Sig. (2-tailed)	.050	.955	.260	.552	.663
	N	309	304	309	306	305
x10 Certainty of major	Pearson Correlation	.295**	.150**	.225**	.177**	.087
	Sig. (2-tailed)	.000	.008	.000	.002	.126
	N	317	312	317	314	312
x11 Expectations of attending college	Pearson Correlation	.302**	.153**	.336**	.207**	.265**
	Sig. (2-tailed)	.000	.007	.000	.000	.000
	N	318	313	318	315	313
x12 Parents expectations of attending college	Pearson Correlation	.015	.186**	.120*	.071	-.040
	Sig. (2-tailed)	.789	.001	.033	.211	.481
	N	317	312	317	314	312
x13 Quality of guidance	Pearson Correlation	.226**	.258**	.199**	.152**	-.006
	Sig. (2-tailed)	.000	.000	.000	.007	.921
	N	318	313	318	315	313
x14 Satisfaction with hs life	Pearson Correlation	.239**	.284**	.180**	.092	.005
	Sig. (2-tailed)	.000	.000	.001	.103	.932
	N	316	311	316	313	311
x15 Pct of friends	Pearson Correlation	.115*	.003	.117*	.044	-.046
	Sig. (2-tailed)	.049	.963	.046	.450	.437
	N	293	288	293	290	292

		x41 Transfer next semester	x42 Continue not next semester	x43 Transfer not next semester	x44 Not attend	x45 Undecided
x1 Classification	Pearson Correlation	-.037	.031	-.053	.112	.044
	Sig. (2-tailed)	.520	.596	.360	.051	.448
	N	310	302	306	304	296
x2 Gender	Pearson Correlation	.069	.020	-.039	-.106	-.083
	Sig. (2-tailed)	.225	.734	.492	.063	.155
	N	311	303	307	305	298
x3 Ethnicity	Pearson Correlation	.050	.089	.012	-.069	-.017
	Sig. (2-tailed)	.379	.122	.839	.230	.765
	N	311	303	307	305	297
x4 Fathers education	Pearson Correlation	-.041	-.054	.062	.055	-.012
	Sig. (2-tailed)	.473	.350	.282	.336	.835
	N	309	301	305	303	295
x5 Mothers education	Pearson Correlation	-.031	.017	.029	.022	-.069
	Sig. (2-tailed)	.588	.772	.617	.698	.238
	N	311	303	307	305	297
x6 English primary	Pearson Correlation	.064	.185**	.090	.022	.149*
	Sig. (2-tailed)	.259	.001	.114	.704	.010
	N	311	303	307	305	297
x7 Size of city	Pearson Correlation	.013	-.014	-.002	.017	.039
	Sig. (2-tailed)	.815	.807	.975	.769	.503
	N	311	303	307	305	297
x8 Income	Pearson Correlation	-.010	-.034	-.015	.088	-.024
	Sig. (2-tailed)	.880	.616	.822	.186	.727
	N	229	225	228	228	223
x9 Size of hs	Pearson Correlation	.064	-.036	-.014	-.023	.080
	Sig. (2-tailed)	.270	.536	.810	.697	.175
	N	303	295	299	297	290
x10 Certainty of major	Pearson Correlation	-.110	-.083	-.078	.026	-.058
	Sig. (2-tailed)	.053	.149	.172	.653	.319
	N	310	302	307	305	297
x11 Expectations of attending college	Pearson Correlation	-.149**	-.125*	.042	-.066	-.184*
	Sig. (2-tailed)	.009	.029	.464	.248	.001
	N	311	303	307	305	297
x12 Parents expectations of attending college	Pearson Correlation	.043	.041	.044	.031	.021
	Sig. (2-tailed)	.451	.479	.446	.594	.720
	N	310	302	306	304	296
x13 Quality of guidance	Pearson Correlation	.041	.029	-.118*	-.042	.006
	Sig. (2-tailed)	.472	.619	.039	.462	.914
	N	311	303	307	305	297
x14 Satisfaction with hs life	Pearson Correlation	.001	.019	-.044	.007	-.037
	Sig. (2-tailed)	.991	.737	.444	.899	.532
	N	309	301	305	303	295
x15 Pct of friends	Pearson Correlation	.090	-.017	-.094	-.038	-.138*
	Sig. (2-tailed)	.128	.778	.113	.523	.021
	N	290	284	288	286	278

		x1 Classification	x2 Gender	x3 Ethnicity	x4 Fathers education	x5 Mothers education
x16 Scholarships	Pearson Correlation	-.064	.040	.090	.058	-.019
	Sig. (2-tailed)	.275	.500	.125	.326	.752
	N	291	293	292	290	292
x17 Loans	Pearson Correlation	-.007	.063	.046	-.005	-.060
	Sig. (2-tailed)	.911	.303	.452	.929	.323
	N	272	273	273	270	272
x18 ACT	Pearson Correlation	-.016	.019	-.095	.174**	.255**
	Sig. (2-tailed)	.790	.744	.102	.003	.000
	N	296	296	297	294	296
x19 GPA	Pearson Correlation	.052	.040	-.031	-.023	.072
	Sig. (2-tailed)	.354	.476	.570	.685	.196
	N	326	327	327	325	327
x20 Distance	Pearson Correlation	-.107	.021	.077	.018	.091
	Sig. (2-tailed)	.059	.715	.175	.752	.110
	N	311	313	312	310	312
x21 Years between grad	Pearson Correlation	-.005	-.108	-.037	-.095	.100
	Sig. (2-tailed)	.929	.050	.509	.086	.070
	N	328	329	329	327	329
x22 Family encouragement	Pearson Correlation	.090	.072	.014	.112*	.125*
	Sig. (2-tailed)	.109	.199	.797	.047	.026
	N	318	319	319	317	319
x23 Financial support	Pearson Correlation	.017	-.033	.063	.015	-.073
	Sig. (2-tailed)	.769	.563	.264	.791	.192
	N	318	319	319	317	319
x24 Difficulty in transferring	Pearson Correlation	-.043	.016	.044	-.059	-.097
	Sig. (2-tailed)	.466	.781	.457	.316	.102
	N	286	287	288	286	288
x25 Satisfaction with curriculum	Pearson Correlation	-.100	.067	-.066	.043	.050
	Sig. (2-tailed)	.075	.234	.240	.450	.371
	N	318	320	319	317	319
x26 Friends encouragement	Pearson Correlation	.002	.064	-.052	-.024	.037
	Sig. (2-tailed)	.974	.256	.360	.670	.507
	N	316	317	317	315	317
x27 Sense of belonging	Pearson Correlation	-.017	.020	-.050	.020	.096
	Sig. (2-tailed)	.766	.715	.369	.718	.085
	N	319	320	320	318	320
x28 Satisfaction with academic experience	Pearson Correlation	-.046	.129*	-.074	.054	.145**
	Sig. (2-tailed)	.414	.021	.187	.337	.009
	N	319	320	320	318	320
x29 Satisfaction with relationships	Pearson Correlation	.061	.011	-.065	.005	.102
	Sig. (2-tailed)	.278	.844	.251	.931	.071
	N	315	317	316	314	316
x30 Confidence decision to attend	Pearson Correlation	-.103	.096	-.125*	.059	.043
	Sig. (2-tailed)	.067	.085	.026	.294	.444
	N	317	319	318	316	318

		x6 English primary	x7 Size of city	x8 Income	x9 Size of hs	x10 Certainty of major
x16 Scholarships	Pearson Correlation	-.011	-.095	-.003	-.043	-.145*
	Sig. (2-tailed)	.856	.107	.963	.470	.013
	N	293	291	228	284	291
x17 Loans	Pearson Correlation	-.018	-.131*	-.019	-.086	-.066
	Sig. (2-tailed)	.773	.032	.779	.163	.277
	N	272	271	212	266	271
x18 ACT	Pearson Correlation	-.121*	.062	.070	.031	-.054
	Sig. (2-tailed)	.038	.283	.301	.597	.358
	N	295	297	221	288	295
x19 GPA	Pearson Correlation	-.012	.029	-.014	-.019	-.091
	Sig. (2-tailed)	.836	.607	.835	.731	.102
	N	326	326	240	319	326
x20 Distance	Pearson Correlation	.171**	.092	.031	-.029	-.005
	Sig. (2-tailed)	.003	.104	.631	.610	.928
	N	311	311	236	304	311
x21 Years between grad	Pearson Correlation	-.007	-.120*	-.019	-.075	.038
	Sig. (2-tailed)	.896	.029	.771	.180	.489
	N	328	328	242	320	329
x22 Family encouragement	Pearson Correlation	.090	.104	.073	.083	.010
	Sig. (2-tailed)	.110	.062	.269	.144	.863
	N	319	319	231	310	318
x23 Financial support	Pearson Correlation	.044	.023	-.108	-.046	.134*
	Sig. (2-tailed)	.434	.680	.101	.423	.016
	N	319	319	232	310	318
x24 Difficulty in transferring	Pearson Correlation	-.039	-.108	.001	-.030	-.061
	Sig. (2-tailed)	.514	.069	.987	.619	.307
	N	287	287	216	279	286
x25 Satisfaction with curriculum	Pearson Correlation	.027	-.009	.092	-.002	.224**
	Sig. (2-tailed)	.626	.874	.162	.977	.000
	N	319	319	232	310	318
x26 Friends encouragement	Pearson Correlation	-.047	.185**	.077	.128*	.145**
	Sig. (2-tailed)	.401	.001	.244	.025	.010
	N	317	317	230	308	316
x27 Sense of belonging	Pearson Correlation	-.002	.077	.099	.009	.212**
	Sig. (2-tailed)	.968	.168	.131	.873	.000
	N	320	320	232	311	319
x28 Satisfaction with academic experience	Pearson Correlation	.071	.015	.088	-.040	.304**
	Sig. (2-tailed)	.203	.793	.180	.477	.000
	N	320	320	232	311	319
x29 Satisfaction with relationships	Pearson Correlation	-.100	.089	.081	.031	.155**
	Sig. (2-tailed)	.075	.113	.224	.586	.006
	N	316	316	229	307	315
x30 Confidence decision to attend	Pearson Correlation	-.030	.046	.057	.006	.226**
	Sig. (2-tailed)	.591	.409	.388	.920	.000
	N	318	318	232	309	317

		x11 Expectations of attending college	x12 Parents expectations of attending college	x13 Quality of guidance	x14 Satisfaction with hs life	x15 Pct of friends
x16 Scholarships	Pearson Correlation	.030	.020	-.056	-.040	.015
	Sig. (2-tailed)	.615	.735	.338	.501	.806
	N	292	291	292	289	289
x17 Loans	Pearson Correlation	.041	.027	.015	.014	.021
	Sig. (2-tailed)	.501	.652	.801	.819	.736
	N	272	271	272	269	267
x18 ACT	Pearson Correlation	.106	.273**	.153**	.038	.176**
	Sig. (2-tailed)	.069	.000	.008	.522	.004
	N	296	295	296	294	272
x19 GPA	Pearson Correlation	.020	.021	-.057	.055	.040
	Sig. (2-tailed)	.712	.711	.303	.327	.485
	N	327	326	327	324	301
x20 Distance	Pearson Correlation	.001	.059	.013	.035	.031
	Sig. (2-tailed)	.980	.304	.817	.539	.598
	N	312	311	312	309	292
x21 Years between grad	Pearson Correlation	.036	.024	-.102	-.123*	.040
	Sig. (2-tailed)	.511	.670	.064	.026	.490
	N	329	328	329	326	303
x22 Family encouragement	Pearson Correlation	.054	.321**	.125*	.131*	.099
	Sig. (2-tailed)	.335	.000	.025	.020	.092
	N	319	318	319	317	293
x23 Financial support	Pearson Correlation	.037	-.065	.197**	.092	-.016
	Sig. (2-tailed)	.510	.247	.000	.101	.782
	N	319	318	319	317	293
x24 Difficulty in transferring	Pearson Correlation	-.068	-.020	-.142*	-.027	.012
	Sig. (2-tailed)	.253	.739	.016	.653	.844
	N	287	286	287	285	267
x25 Satisfaction with curriculum	Pearson Correlation	.204**	-.137*	.131*	.106	.094
	Sig. (2-tailed)	.000	.014	.019	.059	.109
	N	319	318	319	317	294
x26 Friends encouragement	Pearson Correlation	.159**	.153**	.202**	.216**	.214**
	Sig. (2-tailed)	.005	.007	.000	.000	.000
	N	317	316	317	315	292
x27 Sense of belonging	Pearson Correlation	.256**	.098	.223**	.165**	.133*
	Sig. (2-tailed)	.000	.081	.000	.003	.022
	N	320	319	320	318	294
x28 Satisfaction with academic experience	Pearson Correlation	.250**	.061	.222**	.171**	.059
	Sig. (2-tailed)	.000	.277	.000	.002	.316
	N	320	319	320	318	294
x29 Satisfaction with relationships	Pearson Correlation	.272**	.079	.209**	.146**	.029
	Sig. (2-tailed)	.000	.159	.000	.010	.626
	N	316	315	316	314	292
x30 Confidence decision to attend	Pearson Correlation	.345**	.044	.161**	.178**	.023
	Sig. (2-tailed)	.000	.435	.004	.001	.694
	N	318	317	318	316	293

		x16 Scholarships	x17 Loans	x18 ACT	x19 GPA	x20 Distance
x16 Scholarships	Pearson Correlation	1	.704**	.046	-.005	-.020
	Sig. (2-tailed)		.000	.464	.937	.736
	N	293	264	258	286	281
x17 Loans	Pearson Correlation	.704**	1	.068	-.006	-.021
	Sig. (2-tailed)	.000		.292	.925	.730
	N	264	273	240	265	263
x18 ACT	Pearson Correlation	.046	.068	1	.037	.205**
	Sig. (2-tailed)	.464	.292		.527	.001
	N	258	240	297	290	279
x19 GPA	Pearson Correlation	-.005	-.006	.037	1	-.015
	Sig. (2-tailed)	.937	.925	.527		.800
	N	286	265	290	328	305
x20 Distance	Pearson Correlation	-.020	-.021	.205**	-.015	1
	Sig. (2-tailed)	.736	.730	.001	.800	
	N	281	263	279	305	313
x21 Years between grad	Pearson Correlation	.012	-.005	.067	-.003	-.026
	Sig. (2-tailed)	.839	.934	.258	.953	.656
	N	287	268	290	321	305
x22 Family encouragement	Pearson Correlation	.031	-.061	.021	.030	-.040
	Sig. (2-tailed)	.604	.332	.725	.595	.500
	N	277	257	280	308	293
x23 Financial support	Pearson Correlation	-.007	.042	-.011	-.100	-.028
	Sig. (2-tailed)	.907	.500	.860	.079	.633
	N	277	257	279	308	293
x24 Difficulty in transferring	Pearson Correlation	-.073	-.069	-.012	.028	.163**
	Sig. (2-tailed)	.245	.290	.847	.643	.008
	N	254	237	257	277	267
x25 Satisfaction with curriculum	Pearson Correlation	-.045	-.111	.051	-.050	.069
	Sig. (2-tailed)	.452	.074	.400	.378	.239
	N	278	258	279	308	294
x26 Friends encouragement	Pearson Correlation	-.075	-.112	-.008	.039	.074
	Sig. (2-tailed)	.215	.072	.899	.493	.205
	N	276	258	280	307	292
x27 Sense of belonging	Pearson Correlation	-.034	-.117	.060	-.033	-.015
	Sig. (2-tailed)	.577	.061	.313	.561	.803
	N	278	259	281	309	295
x28 Satisfaction with academic experience	Pearson Correlation	-.049	-.111	.111	.002	.070
	Sig. (2-tailed)	.416	.075	.062	.966	.231
	N	278	259	281	309	295
x29 Satisfaction with relationships	Pearson Correlation	-.047	-.152*	.004	-.005	-.084
	Sig. (2-tailed)	.436	.015	.951	.927	.151
	N	276	256	277	305	292
x30 Confidence decision to attend	Pearson Correlation	-.119*	-.171**	.108	.026	-.116*
	Sig. (2-tailed)	.048	.006	.073	.645	.046
	N	277	258	279	307	294

		x21 Years between grad	x22 Family encouragement	x23 Financial support	x24 Difficulty in transferring	x25 Satisfaction with curriculum
x16 Scholarships	Pearson Correlation	.012	.031	-.007	-.073	-.045
	Sig. (2-tailed)	.839	.604	.907	.245	.452
	N	287	277	277	254	278
x17 Loans	Pearson Correlation	-.005	-.061	.042	-.069	-.111
	Sig. (2-tailed)	.934	.332	.500	.290	.074
	N	268	257	257	237	258
x18 ACT	Pearson Correlation	.067	.021	-.011	-.012	.051
	Sig. (2-tailed)	.258	.725	.860	.847	.400
	N	290	280	279	257	279
x19 GPA	Pearson Correlation	-.003	.030	-.100	.028	-.050
	Sig. (2-tailed)	.953	.595	.079	.643	.378
	N	321	308	308	277	308
x20 Distance	Pearson Correlation	-.026	-.040	-.028	.163**	.069
	Sig. (2-tailed)	.656	.500	.633	.008	.239
	N	305	293	293	267	294
x21 Years between grad	Pearson Correlation	1	-.011	-.049	-.095	-.067
	Sig. (2-tailed)		.851	.393	.111	.242
	N	330	310	310	280	310
x22 Family encouragement	Pearson Correlation	-.011	1	.123*	-.087	.070
	Sig. (2-tailed)	.851		.028	.143	.215
	N	310	320	318	286	318
x23 Financial support	Pearson Correlation	-.049	.123*	1	-.116*	.215**
	Sig. (2-tailed)	.393	.028		.050	.000
	N	310	318	320	287	318
x24 Difficulty in transferring	Pearson Correlation	-.095	-.087	-.116*	1	-.066
	Sig. (2-tailed)	.111	.143	.050		.268
	N	280	286	287	288	286
x25 Satisfaction with curriculum	Pearson Correlation	-.067	.070	.215**	-.066	1
	Sig. (2-tailed)	.242	.215	.000	.268	
	N	310	318	318	286	320
x26 Friends encouragement	Pearson Correlation	-.099	.243**	.173**	.000	.330**
	Sig. (2-tailed)	.080	.000	.002	.997	.000
	N	310	316	316	288	316
x27 Sense of belonging	Pearson Correlation	-.173**	.203**	.182**	-.157**	.416**
	Sig. (2-tailed)	.002	.000	.001	.008	.000
	N	311	319	319	288	319
x28 Satisfaction with academic experience	Pearson Correlation	-.074	.202**	.183**	-.065	.670**
	Sig. (2-tailed)	.195	.000	.001	.272	.000
	N	311	319	319	288	319
x29 Satisfaction with relationships	Pearson Correlation	-.031	.212**	.175**	-.182**	.299**
	Sig. (2-tailed)	.592	.000	.002	.002	.000
	N	307	315	315	285	316
x30 Confidence decision to attend	Pearson Correlation	-.211**	.087	.088	-.002	.356**
	Sig. (2-tailed)	.000	.124	.120	.968	.000
	N	309	317	317	286	318

		x26 Friends encouragement	x27 Sense of belonging	x28 Satisfaction with academic experience	x29 Satisfaction with relationships	x30 Confidence decision to attend
x16 Scholarships	Pearson Correlation	-.075	-.034	-.049	-.047	-.119*
	Sig. (2-tailed)	.215	.577	.416	.436	.048
	N	276	278	278	276	277
x17 Loans	Pearson Correlation	-.112	-.117	-.111	-.152**	-.171**
	Sig. (2-tailed)	.072	.061	.075	.015	.006
	N	258	259	259	256	258
x18 ACT	Pearson Correlation	-.008	.060	.111	.004	.108
	Sig. (2-tailed)	.899	.313	.062	.951	.073
	N	280	281	281	277	279
x19 GPA	Pearson Correlation	.039	-.033	.002	-.005	.026
	Sig. (2-tailed)	.493	.561	.966	.927	.645
	N	307	309	309	305	307
x20 Distance	Pearson Correlation	.074	-.015	.070	-.084	-.116*
	Sig. (2-tailed)	.205	.803	.231	.151	.046
	N	292	295	295	292	294
x21 Years between grad	Pearson Correlation	-.099	-.173**	-.074	-.031	-.211**
	Sig. (2-tailed)	.080	.002	.195	.592	.000
	N	310	311	311	307	309
x22 Family encouragement	Pearson Correlation	.243**	.203**	.202**	.212**	.087
	Sig. (2-tailed)	.000	.000	.000	.000	.124
	N	316	319	319	315	317
x23 Financial support	Pearson Correlation	.173**	.182**	.183**	.175**	.088
	Sig. (2-tailed)	.002	.001	.001	.002	.120
	N	316	319	319	315	317
x24 Difficulty in transferring	Pearson Correlation	.000	-.157**	-.065	-.182**	-.002
	Sig. (2-tailed)	.997	.008	.272	.002	.968
	N	288	288	288	285	286
x25 Satisfaction with curriculum	Pearson Correlation	.330**	.416**	.670**	.299**	.356**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	316	319	319	316	318
x26 Friends encouragement	Pearson Correlation	1	.394**	.374**	.344**	.256**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	318	318	318	314	316
x27 Sense of belonging	Pearson Correlation	.394**	1	.627**	.685**	.392**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	318	321	321	317	319
x28 Satisfaction with academic experience	Pearson Correlation	.374**	.627**	1	.469**	.420**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	318	321	321	317	319
x29 Satisfaction with relationships	Pearson Correlation	.344**	.685**	.469**	1	.339**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	314	317	317	317	316
x30 Confidence decision to attend	Pearson Correlation	.256**	.392**	.420**	.339**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	316	319	319	316	319

		x31 Importance of degree	x32 Sense of options	x33 Confidence in choice of major	x34 Work obligations	x35 Family obligations
x16 Scholarships	Pearson Correlation	.025	-.073	-.058	-.004	.048
	Sig. (2-tailed)	.676	.228	.332	.942	.427
	N	276	277	278	267	272
x17 Loans	Pearson Correlation	.034	-.110	-.084	.064	.107
	Sig. (2-tailed)	.592	.079	.179	.311	.091
	N	257	258	259	249	252
x18 ACT	Pearson Correlation	.110	.009	-.028	-.141*	-.137*
	Sig. (2-tailed)	.066	.876	.637	.021	.023
	N	279	279	280	270	274
x19 GPA	Pearson Correlation	.018	-.019	-.064	-.001	-.040
	Sig. (2-tailed)	.753	.739	.264	.992	.485
	N	306	307	308	294	300
x20 Distance	Pearson Correlation	-.089	-.154**	-.021	-.026	.087
	Sig. (2-tailed)	.128	.008	.723	.666	.143
	N	293	294	295	283	288
x21 Years between grad	Pearson Correlation	.030	-.139*	-.043	-.127*	-.095
	Sig. (2-tailed)	.605	.015	.448	.029	.100
	N	308	309	310	297	302
x22 Family encouragement	Pearson Correlation	.081	.089	.059	.001	-.004
	Sig. (2-tailed)	.152	.114	.290	.986	.940
	N	316	317	318	304	310
x23 Financial support	Pearson Correlation	.066	.213**	.191**	-.072	-.046
	Sig. (2-tailed)	.240	.000	.001	.207	.423
	N	316	317	318	305	311
x24 Difficulty in transferring	Pearson Correlation	-.026	-.140*	-.091	.182**	.242**
	Sig. (2-tailed)	.657	.018	.125	.002	.000
	N	285	287	287	283	284
x25 Satisfaction with curriculum	Pearson Correlation	.253**	.428**	.354**	-.068	-.020
	Sig. (2-tailed)	.000	.000	.000	.238	.726
	N	317	318	319	305	311
x26 Friends encouragement	Pearson Correlation	.250**	.336**	.230**	.045	.055
	Sig. (2-tailed)	.000	.000	.000	.431	.335
	N	315	316	317	304	309
x27 Sense of belonging	Pearson Correlation	.196**	.378**	.268**	-.044	.031
	Sig. (2-tailed)	.000	.000	.000	.443	.583
	N	318	319	320	306	312
x28 Satisfaction with academic experience	Pearson Correlation	.335**	.461**	.335**	-.027	-.006
	Sig. (2-tailed)	.000	.000	.000	.641	.914
	N	318	319	320	306	312
x29 Satisfaction with relationships	Pearson Correlation	.193**	.420**	.212**	-.078	.042
	Sig. (2-tailed)	.001	.000	.000	.176	.462
	N	315	316	317	303	309
x30 Confidence decision to attend	Pearson Correlation	.460**	.432**	.282**	-.056	-.037
	Sig. (2-tailed)	.000	.000	.000	.331	.521
	N	317	318	319	305	311

		x36 Confidence in ability	x37 Satisfaction with academic support	x38 Confidence that worth the investment	x39 Sense of entitlement	x40 Continue next semester
x16 Scholarships	Pearson Correlation	-.062	.022	.035	-.042	.020
	Sig. (2-tailed)	.303	.721	.557	.490	.746
	N	277	274	277	274	276
x17 Loans	Pearson Correlation	-.138*	.074	.008	-.102	.012
	Sig. (2-tailed)	.027	.242	.898	.104	.851
	N	258	254	258	256	257
x18 ACT	Pearson Correlation	.089	.057	.088	.103	.066
	Sig. (2-tailed)	.138	.350	.140	.087	.276
	N	280	275	279	277	276
x19 GPA	Pearson Correlation	.052	.009	.031	.057	.016
	Sig. (2-tailed)	.364	.874	.594	.323	.780
	N	308	303	307	305	304
x20 Distance	Pearson Correlation	.006	.042	.016	-.048	.047
	Sig. (2-tailed)	.919	.471	.786	.414	.420
	N	294	290	294	291	293
x21 Years between grad	Pearson Correlation	-.005	-.056	-.150**	.008	.017
	Sig. (2-tailed)	.927	.329	.008	.892	.763
	N	310	305	309	307	306
x22 Family encouragement	Pearson Correlation	.033	.190**	.088	.180**	.305**
	Sig. (2-tailed)	.560	.001	.120	.001	.000
	N	317	312	317	314	311
x23 Financial support	Pearson Correlation	.124*	.158**	.176**	.204**	.053
	Sig. (2-tailed)	.027	.005	.002	.000	.355
	N	317	312	317	314	311
x24 Difficulty in transferring	Pearson Correlation	-.017	-.098	-.015	-.030	-.111
	Sig. (2-tailed)	.776	.099	.801	.617	.063
	N	287	286	287	286	280
x25 Satisfaction with curriculum	Pearson Correlation	.458**	.357**	.368**	.328**	.288**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	318	313	318	315	311
x26 Friends encouragement	Pearson Correlation	.181**	.295**	.336**	.208**	.053
	Sig. (2-tailed)	.001	.000	.000	.000	.353
	N	317	312	316	315	310
x27 Sense of belonging	Pearson Correlation	.317**	.325**	.306**	.453**	.289**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	319	314	319	316	313
x28 Satisfaction with academic experience	Pearson Correlation	.465**	.401**	.359**	.429**	.288**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	319	314	319	316	313
x29 Satisfaction with relationships	Pearson Correlation	.252**	.339**	.324**	.338**	.150**
	Sig. (2-tailed)	.000	.000	.000	.000	.008
	N	316	311	316	313	309
x30 Confidence decision to attend	Pearson Correlation	.457**	.172**	.499**	.307**	.190**
	Sig. (2-tailed)	.000	.002	.000	.000	.001
	N	318	313	318	315	311

		x41 Transfer next semester	x42 Continue not next semester	x43 Transfer not next semester	x44 Not attend	x45 Undecided
x16 Scholarships	Pearson Correlation	-.019	-.017	-.023	-.018	-.017
	Sig. (2-tailed)	.760	.780	.708	.766	.788
	N	274	268	272	270	262
x17 Loans	Pearson Correlation	-.008	-.019	-.024	-.019	-.018
	Sig. (2-tailed)	.904	.759	.702	.765	.776
	N	256	253	254	254	250
x18 ACT	Pearson Correlation	-.050	.031	.075	-.063	.055
	Sig. (2-tailed)	.405	.613	.221	.304	.377
	N	274	267	271	269	262
x19 GPA	Pearson Correlation	-.015	-.017	-.022	-.018	-.017
	Sig. (2-tailed)	.800	.771	.709	.755	.770
	N	302	294	298	296	289
x20 Distance	Pearson Correlation	-.065	.134*	.165**	.008	-.021
	Sig. (2-tailed)	.272	.024	.005	.891	.726
	N	291	285	288	287	279
x21 Years between grad	Pearson Correlation	-.016	-.016	.249**	-.017	-.016
	Sig. (2-tailed)	.776	.782	.000	.773	.788
	N	305	297	302	300	293
x22 Family encouragement	Pearson Correlation	-.260**	-.014	-.004	-.010	-.051
	Sig. (2-tailed)	.000	.814	.938	.863	.382
	N	309	301	305	303	296
x23 Financial support	Pearson Correlation	-.034	-.025	.008	.023	.013
	Sig. (2-tailed)	.552	.661	.895	.687	.821
	N	309	301	305	303	296
x24 Difficulty in transferring	Pearson Correlation	.086	.119*	.020	-.063	-.086
	Sig. (2-tailed)	.151	.049	.743	.297	.160
	N	278	273	275	275	269
x25 Satisfaction with curriculum	Pearson Correlation	-.238**	-.042	-.099	-.113*	-.100
	Sig. (2-tailed)	.000	.472	.086	.049	.085
	N	309	301	305	303	298
x26 Friends encouragement	Pearson Correlation	.021	-.047	-.013	.002	-.026
	Sig. (2-tailed)	.709	.422	.826	.979	.660
	N	308	300	304	302	296
x27 Sense of belonging	Pearson Correlation	-.278**	-.053	-.116*	.012	-.140*
	Sig. (2-tailed)	.000	.358	.042	.838	.015
	N	311	303	307	305	298
x28 Satisfaction with academic experience	Pearson Correlation	-.258**	-.045	-.116*	-.010	-.092
	Sig. (2-tailed)	.000	.436	.043	.861	.114
	N	311	303	307	305	298
x29 Satisfaction with relationships	Pearson Correlation	-.148**	-.001	-.021	.081	-.044
	Sig. (2-tailed)	.009	.984	.719	.161	.449
	N	307	299	303	301	295
x30 Confidence decision to attend	Pearson Correlation	-.101	-.082	-.081	-.129*	-.155**
	Sig. (2-tailed)	.077	.158	.158	.025	.008
	N	309	301	305	303	297

		x1 Classification	x2 Gender	x3 Ethnicity	x4 Fathers education	x5 Mothers education
x31 Importance of degree	Pearson Correlation	-.010	.220**	-.048	.041	.032
	Sig. (2-tailed)	.860	.000	.394	.464	.574
	N	316	318	317	315	317
x32 Sense of options	Pearson Correlation	-.077	.066	-.025	-.022	.016
	Sig. (2-tailed)	.169	.243	.663	.695	.780
	N	317	319	318	316	318
x33 Confidence in choice of major	Pearson Correlation	.044	.044	.061	-.031	-.075
	Sig. (2-tailed)	.437	.428	.274	.576	.181
	N	318	320	319	317	319
x34 Work obligations	Pearson Correlation	.159**	.092	.116*	-.158**	-.249**
	Sig. (2-tailed)	.005	.110	.042	.006	.000
	N	304	306	305	303	305
x35 Family obligations	Pearson Correlation	.082	.036	.133*	-.061	-.150**
	Sig. (2-tailed)	.151	.532	.019	.287	.008
	N	310	312	311	309	311
x36 Confidence in ability	Pearson Correlation	-.091	-.026	-.081	.069	.117*
	Sig. (2-tailed)	.106	.648	.147	.224	.037
	N	317	319	318	316	318
x37 Satisfaction with academic support	Pearson Correlation	-.039	.004	.036	-.026	-.021
	Sig. (2-tailed)	.492	.946	.529	.649	.710
	N	312	314	313	311	313
x38 Confidence that worth the investment	Pearson Correlation	-.009	.114*	-.032	.022	.061
	Sig. (2-tailed)	.877	.043	.569	.690	.277
	N	317	319	318	316	318
x39 Sense of entitlement	Pearson Correlation	-.043	.030	-.067	-.026	.058
	Sig. (2-tailed)	.446	.591	.233	.649	.304
	N	314	316	315	313	315
x40 Continue next semester	Pearson Correlation	-.015	-.003	.000	.091	.014
	Sig. (2-tailed)	.788	.954	.999	.109	.811
	N	312	313	313	311	313
x41 Transfer next semester	Pearson Correlation	-.037	.069	.050	-.041	-.031
	Sig. (2-tailed)	.520	.225	.379	.473	.588
	N	310	311	311	309	311
x42 Continue not next semester	Pearson Correlation	.031	.020	.089	-.054	.017
	Sig. (2-tailed)	.596	.734	.122	.350	.772
	N	302	303	303	301	303
x43 Transfer not next semester	Pearson Correlation	-.053	-.039	.012	.062	.029
	Sig. (2-tailed)	.360	.492	.839	.282	.617
	N	306	307	307	305	307
x44 Not attend	Pearson Correlation	.112	-.106	-.069	.055	.022
	Sig. (2-tailed)	.051	.063	.230	.336	.698
	N	304	305	305	303	305
x45 Undecided	Pearson Correlation	.044	-.083	-.017	-.012	-.069
	Sig. (2-tailed)	.448	.155	.765	.835	.238
	N	296	298	297	295	297

		x6 English primary	x7 Size of city	x8 Income	x9 Size of hs	x10 Certainty of major
x31 Importance of degree	Pearson Correlation	.016	-.071	.024	.062	.150**
	Sig. (2-tailed)	.783	.205	.720	.276	.007
	N	317	317	231	308	316
x32 Sense of options	Pearson Correlation	.048	.083	.068	.054	.248**
	Sig. (2-tailed)	.389	.137	.304	.342	.000
	N	318	318	232	309	317
x33 Confidence in choice of major	Pearson Correlation	.120*	.097	.048	.036	.671**
	Sig. (2-tailed)	.032	.084	.469	.523	.000
	N	319	319	232	310	318
x34 Work obligations	Pearson Correlation	.046	.010	.035	-.055	.032
	Sig. (2-tailed)	.426	.866	.607	.348	.577
	N	305	305	223	296	304
x35 Family obligations	Pearson Correlation	.054	-.027	.059	-.010	-.038
	Sig. (2-tailed)	.346	.640	.374	.867	.510
	N	311	311	229	302	310
x36 Confidence in ability	Pearson Correlation	.060	.044	.081	.112*	.295**
	Sig. (2-tailed)	.283	.438	.218	.050	.000
	N	318	318	232	309	317
x37 Satisfaction with academic support	Pearson Correlation	.035	.071	.103	-.003	.150**
	Sig. (2-tailed)	.536	.210	.120	.955	.008
	N	313	313	231	304	312
x38 Confidence that worth the investment	Pearson Correlation	.064	.031	.090	.064	.225**
	Sig. (2-tailed)	.253	.582	.173	.260	.000
	N	318	318	232	309	317
x39 Sense of entitlement	Pearson Correlation	.091	.059	.102	-.034	.177**
	Sig. (2-tailed)	.108	.298	.124	.552	.002
	N	315	315	229	306	314
x40 Continue next semester	Pearson Correlation	-.024	.029	.035	.025	.087
	Sig. (2-tailed)	.678	.606	.601	.663	.126
	N	313	313	231	305	312
x41 Transfer next semester	Pearson Correlation	.064	.013	-.010	.064	-.110
	Sig. (2-tailed)	.259	.815	.880	.270	.053
	N	311	311	229	303	310
x42 Continue not next semester	Pearson Correlation	.185**	-.014	-.034	-.036	-.083
	Sig. (2-tailed)	.001	.807	.616	.536	.149
	N	303	303	225	295	302
x43 Transfer not next semester	Pearson Correlation	.090	-.002	-.015	-.014	-.078
	Sig. (2-tailed)	.114	.975	.822	.810	.172
	N	307	307	228	299	307
x44 Not attend	Pearson Correlation	.022	.017	.088	-.023	.026
	Sig. (2-tailed)	.704	.769	.186	.697	.653
	N	305	305	228	297	305
x45 Undecided	Pearson Correlation	.149*	.039	-.024	.080	-.058
	Sig. (2-tailed)	.010	.503	.727	.175	.319
	N	297	297	223	290	297

		x11 Expectations of attending college	x12 Parents expectations of attending college	x13 Quality of guidance	x14 Satisfaction with hs life	x15 Pct of friends
x31 Importance of degree	Pearson Correlation	.355**	.107	.057	.024	.018
	Sig. (2-tailed)	.000	.058	.310	.670	.761
	N	317	316	317	315	292
x32 Sense of options	Pearson Correlation	.198**	.019	.239**	.183**	-.001
	Sig. (2-tailed)	.000	.731	.000	.001	.984
	N	318	317	318	316	293
x33 Confidence in choice of major	Pearson Correlation	.183**	.023	.200**	.123*	.063
	Sig. (2-tailed)	.001	.678	.000	.028	.284
	N	319	318	319	317	294
x34 Work obligations	Pearson Correlation	-.147**	.039	-.072	-.176**	-.086
	Sig. (2-tailed)	.010	.497	.207	.002	.152
	N	305	304	305	303	281
x35 Family obligations	Pearson Correlation	-.061	.069	.013	-.087	-.046
	Sig. (2-tailed)	.287	.223	.821	.124	.442
	N	311	310	311	310	286
x36 Confidence in ability	Pearson Correlation	.302**	.015	.226**	.239**	.115*
	Sig. (2-tailed)	.000	.789	.000	.000	.049
	N	318	317	318	316	293
x37 Satisfaction with academic support	Pearson Correlation	.153**	.186**	.258**	.284**	.003
	Sig. (2-tailed)	.007	.001	.000	.000	.963
	N	313	312	313	311	288
x38 Confidence that worth the investment	Pearson Correlation	.336**	.120*	.199**	.180**	.117*
	Sig. (2-tailed)	.000	.033	.000	.001	.046
	N	318	317	318	316	293
x39 Sense of entitlement	Pearson Correlation	.207**	.071	.152**	.092	.044
	Sig. (2-tailed)	.000	.211	.007	.103	.450
	N	315	314	315	313	290
x40 Continue next semester	Pearson Correlation	.265**	-.040	-.006	.005	-.046
	Sig. (2-tailed)	.000	.481	.921	.932	.437
	N	313	312	313	311	292
x41 Transfer next semester	Pearson Correlation	-.149**	.043	.041	.001	.090
	Sig. (2-tailed)	.009	.451	.472	.991	.128
	N	311	310	311	309	290
x42 Continue not next semester	Pearson Correlation	-.125*	.041	.029	.019	-.017
	Sig. (2-tailed)	.029	.479	.619	.737	.778
	N	303	302	303	301	284
x43 Transfer not next semester	Pearson Correlation	.042	.044	-.118*	-.044	-.094
	Sig. (2-tailed)	.464	.446	.039	.444	.113
	N	307	306	307	305	288
x44 Not attend	Pearson Correlation	-.066	.031	-.042	.007	-.038
	Sig. (2-tailed)	.248	.594	.462	.899	.523
	N	305	304	305	303	286
x45 Undecided	Pearson Correlation	-.184**	.021	.006	-.037	-.138*
	Sig. (2-tailed)	.001	.720	.914	.532	.021
	N	297	296	297	295	278

		x16 Scholarships	x17 Loans	x18 ACT	x19 GPA	x20 Distance
x31 Importance of degree	Pearson Correlation	.025	.034	.110	.018	-.089
	Sig. (2-tailed)	.676	.592	.066	.753	.128
	N	276	257	279	306	293
x32 Sense of options	Pearson Correlation	-.073	-.110	.009	-.019	-.154**
	Sig. (2-tailed)	.228	.079	.876	.739	.008
	N	277	258	279	307	294
x33 Confidence in choice of major	Pearson Correlation	-.058	-.084	-.028	-.064	-.021
	Sig. (2-tailed)	.332	.179	.637	.264	.723
	N	278	259	280	308	295
x34 Work obligations	Pearson Correlation	-.004	.064	-.141*	-.001	-.026
	Sig. (2-tailed)	.942	.311	.021	.992	.666
	N	267	249	270	294	283
x35 Family obligations	Pearson Correlation	.048	.107	-.137*	-.040	.087
	Sig. (2-tailed)	.427	.091	.023	.485	.143
	N	272	252	274	300	288
x36 Confidence in ability	Pearson Correlation	-.062	-.138*	.089	.052	.006
	Sig. (2-tailed)	.303	.027	.138	.364	.919
	N	277	258	280	308	294
x37 Satisfaction with academic support	Pearson Correlation	.022	.074	.057	.009	.042
	Sig. (2-tailed)	.721	.242	.350	.874	.471
	N	274	254	275	303	290
x38 Confidence that worth the investment	Pearson Correlation	.035	.008	.088	.031	.016
	Sig. (2-tailed)	.557	.898	.140	.594	.786
	N	277	258	279	307	294
x39 Sense of entitlement	Pearson Correlation	-.042	-.102	.103	.057	-.048
	Sig. (2-tailed)	.490	.104	.087	.323	.414
	N	274	256	277	305	291
x40 Continue next semester	Pearson Correlation	.020	.012	.066	.016	.047
	Sig. (2-tailed)	.746	.851	.276	.780	.420
	N	276	257	276	304	293
x41 Transfer next semester	Pearson Correlation	-.019	-.008	-.050	-.015	-.065
	Sig. (2-tailed)	.760	.904	.405	.800	.272
	N	274	256	274	302	291
x42 Continue not next semester	Pearson Correlation	-.017	-.019	.031	-.017	.134*
	Sig. (2-tailed)	.780	.759	.613	.771	.024
	N	268	253	267	294	285
x43 Transfer not next semester	Pearson Correlation	-.023	-.024	.075	-.022	.165**
	Sig. (2-tailed)	.708	.702	.221	.709	.005
	N	272	254	271	298	288
x44 Not attend	Pearson Correlation	-.018	-.019	-.063	-.018	.008
	Sig. (2-tailed)	.766	.765	.304	.755	.891
	N	270	254	269	296	287
x45 Undecided	Pearson Correlation	-.017	-.018	.055	-.017	-.021
	Sig. (2-tailed)	.788	.776	.377	.770	.726
	N	262	250	262	289	279

		x21 Years between grad	x22 Family encouragement	x23 Financial support	x24 Difficulty in transferring	x25 Satisfaction with curriculum
x31 Importance of degree	Pearson Correlation	.030	.081	.066	-.026	.253**
	Sig. (2-tailed)	.605	.152	.240	.657	.000
	N	308	316	316	285	317
x32 Sense of options	Pearson Correlation	-.139*	.089	.213**	-.140*	.428**
	Sig. (2-tailed)	.015	.114	.000	.018	.000
	N	309	317	317	287	318
x33 Confidence in choice of major	Pearson Correlation	-.043	.059	.191**	-.091	.354**
	Sig. (2-tailed)	.448	.290	.001	.125	.000
	N	310	318	318	287	319
x34 Work obligations	Pearson Correlation	-.127*	.001	-.072	.182**	-.068
	Sig. (2-tailed)	.029	.986	.207	.002	.238
	N	297	304	305	283	305
x35 Family obligations	Pearson Correlation	-.095	-.004	-.046	.242**	-.020
	Sig. (2-tailed)	.100	.940	.423	.000	.726
	N	302	310	311	284	311
x36 Confidence in ability	Pearson Correlation	-.005	.033	.124*	-.017	.458**
	Sig. (2-tailed)	.927	.560	.027	.776	.000
	N	310	317	317	287	318
x37 Satisfaction with academic support	Pearson Correlation	-.056	.190**	.158**	-.098	.357**
	Sig. (2-tailed)	.329	.001	.005	.099	.000
	N	305	312	312	286	313
x38 Confidence that worth the investment	Pearson Correlation	-.150**	.088	.176**	-.015	.368**
	Sig. (2-tailed)	.008	.120	.002	.801	.000
	N	309	317	317	287	318
x39 Sense of entitlement	Pearson Correlation	.008	.180**	.204**	-.030	.328**
	Sig. (2-tailed)	.892	.001	.000	.617	.000
	N	307	314	314	286	315
x40 Continue next semester	Pearson Correlation	.017	.305**	.053	-.111	.288**
	Sig. (2-tailed)	.763	.000	.355	.063	.000
	N	306	311	311	280	311
x41 Transfer next semester	Pearson Correlation	-.016	-.260**	-.034	.086	-.238**
	Sig. (2-tailed)	.776	.000	.552	.151	.000
	N	305	309	309	278	309
x42 Continue not next semester	Pearson Correlation	-.016	-.014	-.025	.119*	-.042
	Sig. (2-tailed)	.782	.814	.661	.049	.472
	N	297	301	301	273	301
x43 Transfer not next semester	Pearson Correlation	.249**	-.004	.008	.020	-.099
	Sig. (2-tailed)	.000	.938	.895	.743	.086
	N	302	305	305	275	305
x44 Not attend	Pearson Correlation	-.017	-.010	.023	-.063	-.113*
	Sig. (2-tailed)	.773	.863	.687	.297	.049
	N	300	303	303	275	303
x45 Undecided	Pearson Correlation	-.016	-.051	.013	-.086	-.100
	Sig. (2-tailed)	.788	.382	.821	.160	.085
	N	293	296	296	269	298

		x26 Friends encouragement	x27 Sense of belonging	x28 Satisfaction with academic experience	x29 Satisfaction with relationships	x30 Confidence decision to attend
x31 Importance of degree	Pearson Correlation	.250**	.196**	.335**	.193**	.460**
	Sig. (2-tailed)	.000	.000	.000	.001	.000
	N	315	318	318	315	317
x32 Sense of options	Pearson Correlation	.336**	.378**	.461**	.420**	.432**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	316	319	319	316	318
x33 Confidence in choice of major	Pearson Correlation	.230**	.268**	.335**	.212**	.282**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	317	320	320	317	319
x34 Work obligations	Pearson Correlation	.045	-.044	-.027	-.078	-.056
	Sig. (2-tailed)	.431	.443	.641	.176	.331
	N	304	306	306	303	305
x35 Family obligations	Pearson Correlation	.055	.031	-.006	.042	-.037
	Sig. (2-tailed)	.335	.583	.914	.462	.521
	N	309	312	312	309	311
x36 Confidence in ability	Pearson Correlation	.181**	.317**	.465**	.252**	.457**
	Sig. (2-tailed)	.001	.000	.000	.000	.000
	N	317	319	319	316	318
x37 Satisfaction with academic support	Pearson Correlation	.295**	.325**	.401**	.339**	.172**
	Sig. (2-tailed)	.000	.000	.000	.000	.002
	N	312	314	314	311	313
x38 Confidence that worth the investment	Pearson Correlation	.336**	.306**	.359**	.324**	.499**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	316	319	319	316	318
x39 Sense of entitlement	Pearson Correlation	.208**	.453**	.429**	.338**	.307**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	315	316	316	313	315
x40 Continue next semester	Pearson Correlation	.053	.289**	.288**	.150**	.190**
	Sig. (2-tailed)	.353	.000	.000	.008	.001
	N	310	313	313	309	311
x41 Transfer next semester	Pearson Correlation	.021	-.278**	-.258**	-.148**	-.101
	Sig. (2-tailed)	.709	.000	.000	.009	.077
	N	308	311	311	307	309
x42 Continue not next semester	Pearson Correlation	-.047	-.053	-.045	-.001	-.082
	Sig. (2-tailed)	.422	.358	.436	.984	.158
	N	300	303	303	299	301
x43 Transfer not next semester	Pearson Correlation	-.013	-.116*	-.116*	-.021	-.081
	Sig. (2-tailed)	.826	.042	.043	.719	.158
	N	304	307	307	303	305
x44 Not attend	Pearson Correlation	.002	.012	-.010	.081	-.129*
	Sig. (2-tailed)	.979	.838	.861	.161	.025
	N	302	305	305	301	303
x45 Undecided	Pearson Correlation	-.026	-.140*	-.092	-.044	-.155**
	Sig. (2-tailed)	.660	.015	.114	.449	.008
	N	296	298	298	295	297

		x31 Importance of degree	x32 Sense of options	x33 Confidence in choice of major	x34 Work obligations	x35 Family obligations
x31 Importance of degree	Pearson Correlation	1	.456**	.225**	-.004	.000
	Sig. (2-tailed)		.000	.000	.950	.994
	N	318	317	318	304	310
x32 Sense of options	Pearson Correlation	.456**	1	.345**	-.018	.012
	Sig. (2-tailed)	.000		.000	.750	.833
	N	317	319	319	306	312
x33 Confidence in choice of major	Pearson Correlation	.225**	.345**	1	.081	-.004
	Sig. (2-tailed)	.000	.000		.158	.944
	N	318	319	320	306	312
x34 Work obligations	Pearson Correlation	-.004	-.018	.081	1	.541**
	Sig. (2-tailed)	.950	.750	.158		.000
	N	304	306	306	306	305
x35 Family obligations	Pearson Correlation	.000	.012	-.004	.541**	1
	Sig. (2-tailed)	.994	.833	.944	.000	
	N	310	312	312	305	312
x36 Confidence in ability	Pearson Correlation	.354**	.419**	.404**	-.147*	-.101
	Sig. (2-tailed)	.000	.000	.000	.010	.076
	N	317	318	319	305	311
x37 Satisfaction with academic support	Pearson Correlation	.155**	.424**	.225**	-.019	.025
	Sig. (2-tailed)	.006	.000	.000	.738	.657
	N	312	314	314	303	309
x38 Confidence that worth the investment	Pearson Correlation	.459**	.483**	.343**	-.106	-.043
	Sig. (2-tailed)	.000	.000	.000	.064	.445
	N	317	319	319	306	312
x39 Sense of entitlement	Pearson Correlation	.224**	.286**	.207**	-.072	.002
	Sig. (2-tailed)	.000	.000	.000	.210	.979
	N	314	315	316	303	309
x40 Continue next semester	Pearson Correlation	.212**	.083	.137*	-.086	-.110
	Sig. (2-tailed)	.000	.143	.015	.138	.055
	N	310	311	312	298	304
x41 Transfer next semester	Pearson Correlation	-.033	.033	-.150**	.000	-.008
	Sig. (2-tailed)	.559	.562	.008	.993	.884
	N	308	309	310	296	302
x42 Continue not next semester	Pearson Correlation	-.070	-.024	-.047	.105	.206**
	Sig. (2-tailed)	.228	.672	.420	.076	.000
	N	300	301	302	289	294
x43 Transfer not next semester	Pearson Correlation	-.108	-.116*	-.042	.020	.000
	Sig. (2-tailed)	.059	.044	.469	.732	.997
	N	304	305	306	292	298
x44 Not attend	Pearson Correlation	-.098	-.003	-.017	-.037	.040
	Sig. (2-tailed)	.089	.961	.767	.535	.497
	N	302	303	304	291	296
x45 Undecided	Pearson Correlation	-.154**	-.039	-.063	.075	.084
	Sig. (2-tailed)	.008	.503	.281	.203	.152
	N	296	297	298	286	291

		x36 Confidence in ability	x37 Satisfaction with academic support	x38 Confidence that worth the investment	x39 Sense of entitlement	x40 Continue next semester
x31 Importance of degree	Pearson Correlation	.354**	.155**	.459**	.224**	.212**
	Sig. (2-tailed)	.000	.006	.000	.000	.000
	N	317	312	317	314	310
x32 Sense of options	Pearson Correlation	.419**	.424**	.483**	.286**	.083
	Sig. (2-tailed)	.000	.000	.000	.000	.143
	N	318	314	319	315	311
x33 Confidence in choice of major	Pearson Correlation	.404**	.225**	.343**	.207**	.137*
	Sig. (2-tailed)	.000	.000	.000	.000	.015
	N	319	314	319	316	312
x34 Work obligations	Pearson Correlation	-.147*	-.019	-.106	-.072	-.086
	Sig. (2-tailed)	.010	.738	.064	.210	.138
	N	305	303	306	303	298
x35 Family obligations	Pearson Correlation	-.101	.025	-.043	.002	-.110
	Sig. (2-tailed)	.076	.657	.445	.979	.055
	N	311	309	312	309	304
x36 Confidence in ability	Pearson Correlation	1	.420**	.412**	.279**	.211**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	319	314	318	316	311
x37 Satisfaction with academic support	Pearson Correlation	.420**	1	.288**	.286**	.110
	Sig. (2-tailed)	.000		.000	.000	.054
	N	314	314	314	311	306
x38 Confidence that worth the investment	Pearson Correlation	.412**	.288**	1	.371**	.075
	Sig. (2-tailed)	.000	.000		.000	.187
	N	318	314	319	315	311
x39 Sense of entitlement	Pearson Correlation	.279**	.286**	.371**	1	.169**
	Sig. (2-tailed)	.000	.000	.000		.003
	N	316	311	315	316	308
x40 Continue next semester	Pearson Correlation	.211**	.110	.075	.169**	1
	Sig. (2-tailed)	.000	.054	.187	.003	
	N	311	306	311	308	314
x41 Transfer next semester	Pearson Correlation	-.128*	-.107	.016	-.125*	-.752**
	Sig. (2-tailed)	.024	.062	.774	.028	.000
	N	309	304	309	306	312
x42 Continue not next semester	Pearson Correlation	-.003	.074	-.012	.027	-.297**
	Sig. (2-tailed)	.962	.203	.835	.648	.000
	N	301	296	301	298	304
x43 Transfer not next semester	Pearson Correlation	-.068	-.062	-.031	.049	-.095
	Sig. (2-tailed)	.240	.288	.588	.400	.097
	N	305	300	305	302	308
x44 Not attend	Pearson Correlation	-.082	.048	-.080	-.006	-.122*
	Sig. (2-tailed)	.153	.406	.162	.911	.034
	N	303	298	303	300	306
x45 Undecided	Pearson Correlation	-.120*	.026	-.089	.024	-.133*
	Sig. (2-tailed)	.039	.660	.126	.681	.022
	N	298	293	297	295	298

		x41 Transfer next semester	x42 Continue not next semester	x43 Transfer not next semester	x44 Not attend	x45 Undecided
x31 Importance of degree	Pearson Correlation	-.033	-.070	-.108	-.098	-.154**
	Sig. (2-tailed)	.559	.228	.059	.089	.008
	N	308	300	304	302	296
x32 Sense of options	Pearson Correlation	.033	-.024	-.116*	-.003	-.039
	Sig. (2-tailed)	.562	.672	.044	.961	.503
	N	309	301	305	303	297
x33 Confidence in choice of major	Pearson Correlation	-.150**	-.047	-.042	-.017	-.063
	Sig. (2-tailed)	.008	.420	.469	.767	.281
	N	310	302	306	304	298
x34 Work obligations	Pearson Correlation	.000	.105	.020	-.037	.075
	Sig. (2-tailed)	.993	.076	.732	.535	.203
	N	296	289	292	291	286
x35 Family obligations	Pearson Correlation	-.008	.206**	.000	.040	.084
	Sig. (2-tailed)	.884	.000	.997	.497	.152
	N	302	294	298	296	291
x36 Confidence in ability	Pearson Correlation	-.128*	-.003	-.068	-.082	-.120*
	Sig. (2-tailed)	.024	.962	.240	.153	.039
	N	309	301	305	303	298
x37 Satisfaction with academic support	Pearson Correlation	-.107	.074	-.062	.048	.026
	Sig. (2-tailed)	.062	.203	.288	.406	.660
	N	304	296	300	298	293
x38 Confidence that worth the investment	Pearson Correlation	.016	-.012	-.031	-.080	-.089
	Sig. (2-tailed)	.774	.835	.588	.162	.126
	N	309	301	305	303	297
x39 Sense of entitlement	Pearson Correlation	-.125*	.027	.049	-.006	.024
	Sig. (2-tailed)	.028	.648	.400	.911	.681
	N	306	298	302	300	295
x40 Continue next semester	Pearson Correlation	-.752**	-.297**	-.095	-.122*	-.133*
	Sig. (2-tailed)	.000	.000	.097	.034	.022
	N	312	304	308	306	298
x41 Transfer next semester	Pearson Correlation	1	.087	.187**	.042	.227**
	Sig. (2-tailed)		.129	.001	.463	.000
	N	312	304	308	306	298
x42 Continue not next semester	Pearson Correlation	.087	1	.133*	.161**	.149*
	Sig. (2-tailed)	.129		.020	.005	.010
	N	304	304	303	303	295
x43 Transfer not next semester	Pearson Correlation	.187**	.133*	1	.085	.369**
	Sig. (2-tailed)	.001	.020		.137	.000
	N	308	303	308	306	297
x44 Not attend	Pearson Correlation	.042	.161**	.085	1	.283**
	Sig. (2-tailed)	.463	.005	.137		.000
	N	306	303	306	306	297
x45 Undecided	Pearson Correlation	.227**	.149*	.369**	.283**	1
	Sig. (2-tailed)	.000	.010	.000	.000	
	N	298	295	297	297	298

Appendix D: Path Analysis Results

Model for Intentions of Persistence at the Same Institution

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	185	294.327	220	.001	1.338
Saturated model	405	.000	0		
Independence model	27	2452.022	378	.000	6.487

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.880	.794	.967	.938	.964
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.582	.512	.561
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

Model for Intentions of Persistence at a Different Institution

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	138	163.001	114	.002	1.430
Saturated model	252	.000	0		
Independence model	21	1745.876	231	.000	7.558

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.907	.811	.970	.934	.968
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.494	.447	.478
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

Model for Intentions of Stopping Out and Returning to the Same Institution

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	34	23.850	20	.249	1.193
Saturated model	54	.000	0		
Independence model	9	143.970	45	.000	3.199

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.834	.627	.969	.912	.961
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.444	.371	.427
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

Model for Intentions of Stopping Out and Returning to a Different Institution

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	59	36.051	31	.244	1.163
Saturated model	90	.000	0		
Independence model	12	571.764	78	.000	7.330

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.937	.841	.991	.974	.990
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.397	.372	.393
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

Model for Intentions of Dropping Out

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	53	39.201	51	.886	.769
Saturated model	104	.000	0		
Independence model	13	565.006	91	.000	6.209

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.931	.876	1.023	1.044	1.000
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.560	.522	.560
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

Model for Undecided Intentions

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	87	113.570	102	.204	1.113
Saturated model	189	.000	0		
Independence model	18	884.216	171	.000	5.171

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.872	.785	.985	.973	.984
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.596	.520	.587
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000