

## ABSTRACT

### Transfer Transitions: First Semester Experiences of Transfer Students at Selected Texas Christian Universities

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This study examined the experiences of new transfer students in the Fall semester of 2005 at three Christian universities. The research focused on determining the variables that predicted transfer students' successful transition and persistence during their first semester at these universities. This study applied Tinto's (1993) model of student departure to transfer students and also included an examination of the impact of spiritual integration on student persistence. Additionally, it considered those variables which impacted student academic and social adjustment (Laanan, 1998).

Three Christian universities in Texas (with a total new transfer student population of 603) were selected for this study. A 70-item survey was used to examine the students' backgrounds and their transfer experiences. Multiple rounds of reminders resulted in an overall response rate of 58% (n=348).

Only one of the twenty pre-enrollment variables, Highest Degree Planned at Current Institution, was significant at the  $p < .05$  level with regard to the prediction of student persistence. Logistic regression was then used to consider whether the Tinto

constructs of academic integration, social integration, and goal and institutional commitments were significant predictors of transfer student persistence. The spiritual integration construct was tested in the same manner. Only the Social Integration (specifically the Peer Interaction variable) and Goal and Institutional Commitment constructs were predictive of transfer student persistence at these three universities.

Linear regression was then utilized to determine the variables that affected the academic and social adjustment of these transfer students. Results showed three variables with a significant effect on the transfer student's academic adjustment (and accounted for 45% of the variation) and three variables that were significant in their effect on the transfer student's social adjustment (accounting for 41% of the variation).

Recommendations for practice and future research were made based on the results of the analysis. Transfer students create a unique opportunity and challenge for higher education, including Christian universities. It is hoped that this research will be the impetus needed to challenge universities to pursue answers to these same research questions and to a greater understanding of their transfer students.

Transfer Transitions:  
First Semester Experiences of Transfer Students  
at Selected Texas Christian Universities

by

John Eric Gumm

A Dissertation

Approved by the Department of Educational Administration

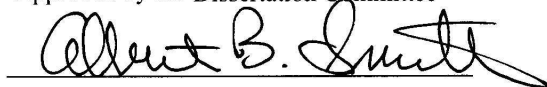


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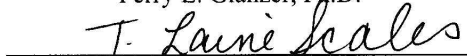
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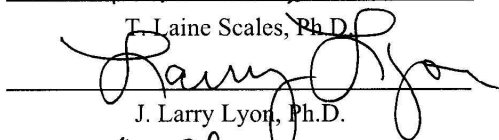
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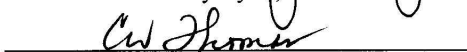
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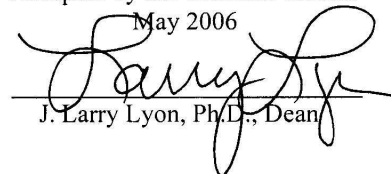
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## CHAPTER ONE

### Introduction to the Study

#### *Introduction*

According to the most recent figures available from the U.S. Department of Education's National Center for Education Statistics (2004) and the Chronicle of Higher Education (2005), there are over 3 million students enrolled in the more than 1,000 private colleges and universities in the United States. That represents approximately thirty-three percent of the almost nine million students enrolled in four-year colleges and universities. The Council of Christian Colleges and Universities (2005) indicates that its 132 member institutions enroll almost one-quarter of a million of those students.

As student enrollment increases in universities and community colleges nationally, an opportunity exists for Christian universities to grow through the enrollment of more students who began their college careers at a community college or another university and then transfer to a Christian university. Unfortunately, even as enrollment numbers increase, approximately fifty percent of all the students enrolling in higher education end up leaving (Braxton, Hirschy & McClendon, 2004). Most of those students are not likely to return to higher education in the future either, so understanding those factors which influence persistence of transfer students is crucial.

“Although many administrators will first think about retention in terms of funding and accountability, just as important is the moral commitment to students” (Braxton et al, 2004, p. 1). The unique opportunity presented by increasing numbers of transfer students demands that Christian universities be prepared for the entry of these students and that

they understand the unique needs and perspectives of the transfer students who come to their institutions. Hoover's research indicated that transfer students reported gaining less from college than other students (2005). Therefore, universities that accept transfer students need to understand the adjustments of these students and proactively address possible challenges. Unfortunately, very little research has been done in this area, but this study provides a starting point for that examination.

### *The Transfer Function*

One of the most significant developments in American higher education in the twentieth century was the establishment of the community college. Since the widespread creation of community colleges across the country following World War II, the number of students enrolled in these institutions has continued to increase. The last two decades in particular have seen significant increases in the number of students enrolled in community colleges. In fact, the number of students that are enrolled in two-year colleges has grown from 4.5 million in 1980 to 6.5 million in 2002 (National Center for Education Statistics, 2005). In 2005, the American Association of Community Colleges reported that there are now more than 1,100 community colleges and more than 11 million students enrolled in credit and non-credit programs. Students choose to begin their college work there for a variety of reasons including: lower tuition costs, open enrollment policies, and more flexible course scheduling.

As the enrollment in community colleges has increased, so have the number of students who are transferring to four-year colleges and universities in order to complete their bachelor's degree (Berkner, He and Cataldi, 2002; Eaton, 1994; Terzian, 1991). These student numbers have continued to increase and they now represent a sizeable

portion of the students entering four-year universities each year (Wawrzynski and Sedlacek, 2003). In 2003, the National Center for Education Statistics indicated that fifty-one percent of community college students, who indicated a goal of obtaining a bachelor's degree, transferred to a four-year university. Hoachlander, Sikora, Horn & Carroll (2003) observed that twenty-nine percent of all first-time students who begin college in a community college transferred to a four-year university. Unfortunately, most colleges have made the assumption that the needs of these transfer students are the same as the needs of their incoming freshmen and most colleges have chosen to simply group them together with freshmen in transition experiences, such as new student orientation.

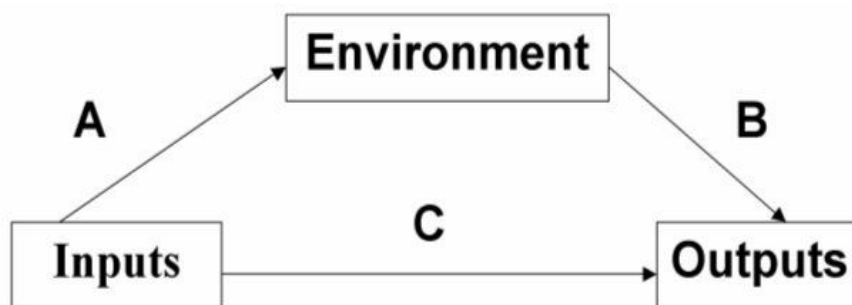
Before programs and interventions can be put in place to address the unique needs of transfer students, there needs to be a better understanding of the process of transferring. Davies and Dickmann (1998) observed that "the process of transferring from a community college to a senior institution is a complex and often ominous task for students pursuing the baccalaureate degree." In order to fully understand the transition process for transfer students, both the academic and social components of integration into the four-year university culture must be examined. As Maddox has observed, "Little is known of the needs of traditionally-aged, community college transfer students once they have successfully enrolled in a four-year institution" (1998, p. 3).

In this era of emphasis on the retention of students, it is crucial that four-year universities have a clear understanding of the experiences of transfer students so that appropriate programs and strategies can be put in place to meet the needs of these students. This need is even more significant for Christian universities which are typically

much more tuition driven and where almost no research on transfer students has been conducted. This study has addressed those missing areas.

### *Conceptual Frameworks*

There are two models which have provided the conceptual framework for this study of transfer student adjustment. The first model is Astin's I-E-O Model (shown in Figure 1) which contends that student outputs are affected by both their inputs and the environmental experiences they have while at the university (1985). This model originated in research looking at the college environment and the factors which dramatically affect a student's persistence. Astin (1985) found that each factor which was a predictor for persistence was related to student involvement. This theory also seems to apply to transfer students.



*Figure 1.* Astin's I-E-O Model (Astin, 1991)

Astin's research (1971, 1993) led him to develop one of the first and longest-lasting models to help in the task of understanding the impact of college on students. This Input-Environment-Output Model is less of a theoretical model than it is an attempt to conceptually guide the study of college students. It is founded on the basic idea that

the success of a student is a reflection of the person that the student was before enrolling and what happened to them after they enrolled in the university. The model includes three sets of elements: Inputs, Environment, and Outputs.

Astin's work indicated that the student enters college with a preexisting set of characteristics and perceptions (called the Inputs). These Inputs can include family background, high school grades, test scores, race, gender, ethnicity, marital status, and their reasons for attending the university. Astin's conceptual model indicates that the Input elements not only directly influence the student Outputs (through the path designated as C), but they also have an effect (path A) on the Environment which also (path B) influences the student Outputs. Thus, the Inputs are significant factors as a result of this double influence (Astin, 1993; Pascarella and Terenzini, 2005).

The second set of elements in Astin's model indicated that there are several environmental factors which have an influence on the student's transition experience and their outcomes. These Environmental factors may include the institutional characteristics of the new university, peer group characteristics, major, experiences, place of residence, financial aid, and student involvement. The environmental factors differ based on the student Inputs and experiences, but they directly affect (as seen in path B of the model) the student Outputs. Astin (1985) also found that student involvement has a significant effect on their experiences in the university environment, and it should be a strong indicator of a positive transition experience for transfer students (Harrison, 1999). This study examined the student involvement of transfer students and considered whether that was a factor in their successful transition.

The final component of the I-E-O Model advanced by Astin is labeled as the Outputs. These Outputs can include things such as satisfaction with the college environment, student characteristics, beliefs, behaviors, academic achievements, academic understanding, abilities, attitudes, career development, and retention (Astin, 1993; Pascarella and Terenzini, 2005). Astin has actually identified 146 possible input variables; 192 environmental factors; and 82 outcome variables (Ishler and Upcraft, 2005). According to Astin's model, these factors interact and intersect and create the opportunity for tremendous impact upon students. Astin's I-E-O model provides a crucial foundation for the understanding of transfer students and it was one of the two essential frameworks for this study.

The second model included in the conceptual framework for this study was Tinto's (1993) Longitudinal Model of Student Departure (shown in Figure 2). Tinto (1993) posited that the process of integration into the university community is a longitudinal process affected on several levels by internal and external forces.

Tinto's (1993) model was an attempt to capture and describe the process that occurs over time with students' decisions regarding departure from the university as the ultimate decision. As seen in Figure 2, the model is arranged along a time continuum which moves from left to right. The first set of factors which influence the model and outcome are those which the student brings with them to the campus – their family background, prior schooling, and specific skills and abilities – labeled the pre-entry attributes. Those factors influence the initial intentions the student has as well as their commitment to their individual goals and the institution they are attending. On-going

external commitments also influence these decisions, as these decisions also affect those external commitments.

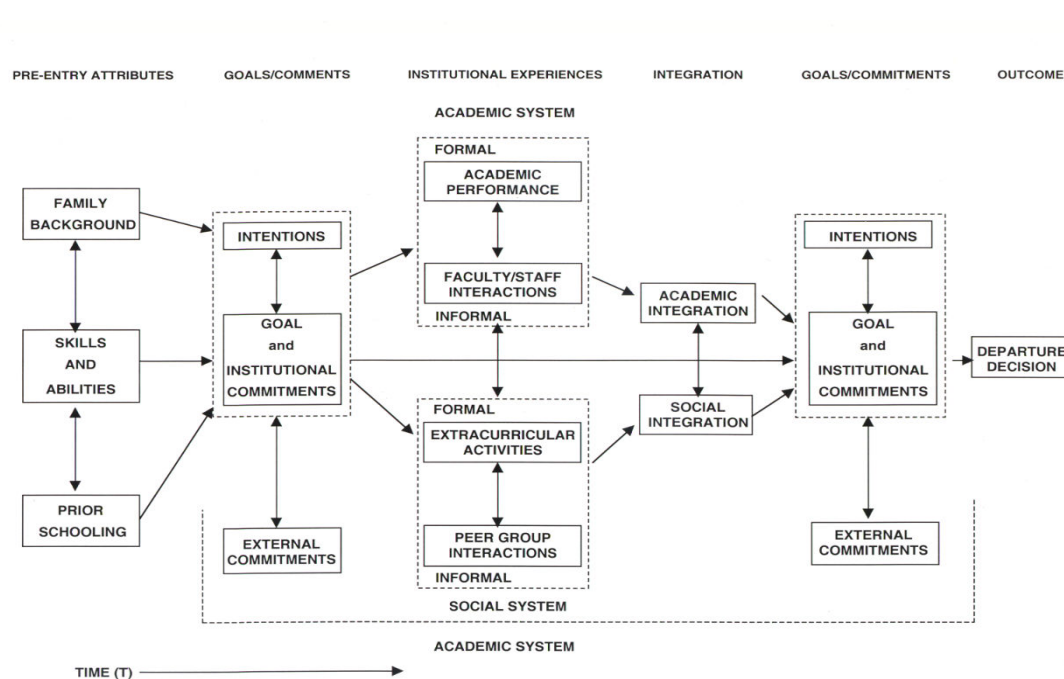


Figure 2. Longitudinal Model of Student Departure (Tinto, 1993)

From that basis of initial commitment, Tinto's model of student departure presents a dual framework of both academic and social systems into which the student is to integrate (Tinto, 1987; Maddox, 1998). Each of these systems has both a formal and an informal component, and both components play an important role in the student's integration within the institution. In this multi-dimensional model, Tinto (1993) also points out that integration into one system does not indicate that a student will be integrated into the other system. For example, if a student becomes very connected in the social system, but not in the academic system, then they will likely find themselves serving an academic suspension as a result.



Tinto (1993, 1997, and 1998) argues that both of these systems, the academic and social, play a role in retaining students. He also does not indicate that the integration needs to be equal between the two systems. A lack of integration in one or the other systems also does not automatically indicate departure (Maddox, 1998), but the model indicates that some level of student integration socially and academically must occur in order for the student to remain at the college or university.

The students' experiences and integration at the new institution, as well as their background characteristics and experiences shape the student's new set of intentions as well as their commitments to their goals and this institution. These decisions and the students' external commitments are the primary influences on the student's decision regarding departure from the university. Tinto (1993) places the departure decision in the category of the model that he labels outcomes. This provides an easy way to see how Tinto's model fits in Astin's model.

The pre-entry attributes in Tinto's model (family background, skills and abilities, and prior schooling) and Tinto's initial goals and commitments align with the Inputs which can be found in Astin's model. In the same way, the variables related to the academic integration and social integration found in Tinto's model are the components of the Environment from Astin's model. Finally, the subsequent Goals and Commitments and the Departure Decision are the Outputs found in the Astin model. Hartley (2004) notes that Astin's work provides an excellent "helper theory" (p. 156) to use in the examination of the integration of students, and this perspective has been supported by Braxton et al. (2004).

Essentially, Tinto's model conceptualizes the idea that the more a student knows about and is comfortable with their academic and social integration; then, the more likely they will be to remain at the institution. This present study built upon the framework of this previous work with the expectation that transfer student interaction with the academic and social systems of the new institution are significant determinants with regard to the student's successful transition and retention. Because of the unique nature of Christian universities, this study added an additional integration construct – spiritual integration – which was also expected to significantly influence transfer students' transition and their departure decisions.

### *Spiritual Integration*

Most of the student retention literature examines the academic and social integration of students into the university, but this research is missing a key component of the higher education experience – especially in Christian universities. Boyer (1987) indicated that the early American colleges saw it as their responsibility to educate “the whole person – body, mind, and spirit; head, heart, and hands” (p. 177). There is a growing interest in spirituality within higher education and in returning, at least somewhat, to the type of educational community that Boyer described. In fact, Tisdell (2003) goes so far as to state that in higher education today “spirituality is a hot topic” (p. 2). This provides a perfect opportunity for Christian universities to emphasize what they have to offer for their students.

More recently, except for religious universities, higher education has avoided the issue of spirituality (Tisdell, 2003). However, the “Spirituality in Higher Education: A National Study of College Students' Search for Meaning and Purpose” project which was

undertaken by the UCLA Higher Education Research Institute signaled a renewed interest in this area. This project examined the responses of 112,232 freshmen, attending a wide variety of institutions, in order to provide more information regarding this topic (Bartlett, 2005). This study and its scope are a reflection of the interest in these issues, and this research is also likely to fuel future research in this area.

The UCLA study utilized a definition of “spirituality” which focused on “believing in the sacredness of life, seeking out opportunities to grow spiritually and believing that we are all spiritual beings” (Green, 2005). The Tinto model aims to encompass two of Boyer’s three areas – the body and the mind. However, the Christian university still takes all three of these foci seriously. Green (2005) also presented Keith Anderson’s perspective which indicated that “Spirituality has been a hallmark of CCCU schools across their rich histories” (p. 1). In fact, for most Christian universities, their mission statement will encompass all three of the Boyer aims. Therefore, a real consideration of the impact of these institutions needs to include the role of spiritual integration, along with that of academic and social integration. Bartlett (2005) quotes Astin’s conclusion that “there are large numbers of students who are involved in spiritual and religious issues and who are trying to figure out what life is all about and what matters to them” (p. A1). Christian universities are the perfect place for this discovery to occur and this should be a consideration when evaluating the “fit” of students within the institution.

Morris (2002) notes that he could only find four studies (Brandt, 1991; Cash & Bissel, 1985; Pascarella & Terenzini, 1980; Walter, 2000) that examined retention at Christian universities using either the Tinto or a similar model. All four affirmed at least

some significant portion of Tinto's model, and they indicated that this model may be useful to help fully understand student retention and attrition in the Christian university, especially when the Spiritual Integration component is added (Morris, 2002).

In a subsequent article, Morris, Smith, & Cejda (2003) noted that a logistic regression analysis of Tinto's constructs and an added spiritual integration measure found that the Spiritual Integration construct was a significant predictor of retention, at least at one Christian university. In 2004, Morris, Beck, & Smith used a principal components analysis with Varimax rotation to examine this same population and determined that the fit indices were significantly redundant and that Spiritual Integration was the most reliable predictor of student retention with this population, correctly classifying 88.6% of the sample with regard to persister status.

In many ways, spiritual integration is one of the essential reasons that the Christian university exists. Ma (1999) indicated that church-related universities pay much more attention to the whole student – mental, spiritual, social, and even physical – and the institution is truly shaped around that focus. Her research also indicated that if a student does not connect with the spiritual part of the university (or does not integrate spiritually), then they are substantially less likely to connect to other aspects of the institution (Ma, 1999).

Marsden (1994) observed that “Christian spirituality has played a major role in the development of American higher education and ... in the development of character and leadership among young adults historically” (p. 126). There is now a returning interest in and emphasis on the role of spirituality, albeit in a very different way than it has been seen historically, and this opens the door for Christian universities to show how they

engage the whole student. This connection of faith and learning is unique to the Christian university and it not only provides vital identity to the institution, but it may also prove to be the key to the successful integration and retention of transfer students (Ma, 2003). Therefore, this study included a consideration of the spiritual integration of students, along with the more common academic and social integrations.

### *Statement of the Problem and Purposes*

There have been numerous studies which have examined the academic experiences of transfer students and which have compared them to that of native students at the institution, and these studies have typically used the term “transfer shock” (Cejda, 1994, 1997; Cejda & Kaylor, 1997; Cejda, Kaylor, & Rewey, 1998; Diaz, 1992; Glass Jr & Harrington, 2002; Graham & Hughes, 1994; Laanan, 2001, 2004; Rhine, Milligan, & Nelson, 2000; Townsend, 1993, 1995). The transfer shock term was first used by Hill (1965) to describe the trend he observed in transfer students’ grades falling in their first semester at the four-year institution. However, the quantitative “transfer shock” approach often misses the emotional and psychological factors which can affect a student’s performance at the new institution, as well as their likelihood to persist there.

Often times, these other factors and experiences can create a kind of “culture shock” for the transfer student. The transition process for these students is complex and the examination of it needs to include more than a cursory look at student grade point average changes. In addition, almost all of the studies of transfer transitions focus on public universities and little attention has been paid to the transfer transitions of students at private, four-year universities (Cejda & Kaylor, 1997; Schreiner, 2000; Townsend, 1995).

For the purpose of this study, the primary research problem or question was: What variables predict transfer students' successful persistence and transition experience during their first semester at Christian universities? There are six specific questions which flowed out of this overarching research question:

1. What were the demographic characteristics of students who transferred to Christian universities?
2. After controlling for statistically significant pre-enrollment variables, was *academic integration* a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?
3. After controlling for statistically significant pre-enrollment variables was *social integration* a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?
4. After controlling for statistically significant pre-enrollment variables were *goal and institutional commitments* significant predictors of transfer students' first semester to second semester persistence at Christian institutions of higher education?
5. After controlling for statistically significant pre-enrollment variables was *spiritual integration* a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?

6. What demographic, previous institution and current university factors affected the transfer students' successful adjustment to Christian universities?

Transfer students have become highly desired in most private, four-year universities because of the enrollment boost that they provide, but once they arrive on campus they are typically ignored as a unique group with distinct needs. This study addressed the lack of information which can lead to that situation.

The major purposes of this research were to:

1. Test the Tinto model with regard to the persistence of transfer students at Christian universities.
2. Examine the variables affecting the transfer student's academic and social adjustments at Christian universities.
3. Propose new practices for Christian universities to use in integrating new transfer students.
4. Contribute to the information about transfer students allowing Christian universities to better understand these students and their transition experiences.

### *Significance and Need for the Study*

In this era with an increasing number of students beginning at one institution and then indicating a desire to transfer, there is a significant need for more information regarding that process and its effects on students. Hinshaw (2003) observed that "a substantial body of research has been developed regarding the first-year experience in general, but there is a real need to focus specifically on community college transfers" (p.

23). Flaga (2002) observed that, “Before interventions can be created to assist transfer students with successful transition, there is a need to have a clearer understanding of the process of transfer student transition over time...” (p. 2). This study addressed that need for more information by providing a more complete picture of the process of transferring and addressing the four-year university’s understanding of these students (Green, 2001).

Harrison (1999) and Flaga (2006) noted that an exploration of both academic and social integration was necessary in order to understand the experience of transfer students. This study did that by looking more closely at the experiences (academic, social, and spiritual) of transfer students as they transitioned to four-year, Christian universities. Several sources (Cejda, 1999, 2000; Cejda & Kaylor, 1997; Townsend, 1995; and, Walter, 2000) have pointed to the need to provide a counterbalance to studies conducted in large, public universities through a look at those factors which influence students’ persistence at Christian universities.

Christian university administrators lack substantive research with regard to transfer students entering Christian universities, and this study provides information which can be used in order to improve the experience of those students who choose to transfer. Maddox (1998) recommended the use of quantitative research to develop a multi-institutional perspective on transfer students to the private university. This study also makes specific recommendations, based on the research, regarding steps that Christian universities can take in order to ease the academic, social, and spiritual transitions for transfer students.

Finally, in the economic climate in which Christian universities find themselves operating, this study contributes to the research regarding the retention of transfer



students which may be crucial to the financial survival of many private universities, since they are so strongly tuition driven. Elkins, Braxton, and James (2000) observe that “the goal of enhanced student retention has become a focus of higher education institutions nationwide” (p. 251). Elkins, Braxton, and James (2000) point to Tinto’s 1993 observation that examination of the reasons for departure of various student populations, collegiate settings, and at various stages are important in order to expand our understanding of student persistence.

Woosley (2005) noted that transfer students also tend to have a lower retention rate (sixty-seven percent compared to seventy-seven percent) than freshmen students. Thus, this focus on student persistence is, in some ways, a reflection of the need to maintain significant levels of enrollment because of the financial implications of a decline in the number of enrolled students. In support of these efforts to retain students, this study aimed to provide a fuller, richer perspective on transfer students and to present areas in which Christian universities may improve the experiences of their transfer students and positively influence their departure decisions.

### *Assumptions*

There are several assumptions which underlie this study, including:

- Students understood the questionnaire.
- That student answers were accurate and self-reflective of their actual experiences.
- That each student who completed the survey was actually a transfer student.
- That the participants in the study were representative of the growing group of transfer students coming to Christian universities.
- That Tinto’s model of student departure is relevant to transfer students.

### *Delimitations*

The delimitations for this study were:

- This study only surveyed students in three Christian universities.
- Survey data was collected only once in the fall semester of 2005, during the first semester these students were enrolled at the three universities.
- Only students were surveyed regarding their experiences, no faculty or staff provided input in this study.
- Only students that the three universities designated as transfer students were contacted about this study.
- Local mailing addresses were unavailable for a majority of the transfer students at Institution C.

### *Limitations*

There were at least four limitations identified for this study:

- Transfer students were not compared to native students with respect to the outcomes of this study.
- The focus of this study was limited to three Christian, four-year universities and the results of this research may not be applicable to other private or public institutions.
- These results reflect the experiences and opinions of the specific students who completed the questionnaire and their responses might have been influenced by factors outside the consideration of this study.
- Survey data was self-reported and it might have been biased.

- The number of survey participants who subsequently persisted far outnumbered those who did not persist.

### *Definitions*

Listed below are the operational definitions that were used in this research:

- Academic Integration – The academic integration variable included the transfer student's academic performance, academic and intellectual development, and faculty concern for student development and teaching. Academic performance was measured by the student's first semester cumulative grade point average. Academic and intellectual development was measured by using a scale created by Pascarella and Terenzi (1980) that was designed to operationalize this variable. Faculty concern for student development was measured by using a scale created by Pascarella and Terenzi (1980) that was designed to operationalize this variable (Morris, 2002).
- Adjustment – the modification of the transfer students' behavior as a result of the changed circumstances at the new university and the psychological, social, and spiritual connection to the new environment.
- Christian university – a comprehensive four-year, degree granting institution which is either a full or affiliate member of the Council for Christian Colleges and Universities (CCCU).
- Departure Decision – see definitions of persistence and withdrawal.
- Family Background – This group of variables included: gender, ethnic group, parents combined annual income, mother's formal education, father's formal

education, and religious affiliation. Family Background was measured using data collected on the Transfer Student Experiences Survey (Morris, 2002).

- Goal and Institutional Commitments - subsequent – The Goal and Institutional Commitments variable included a student's intent to reenroll (intentions) and were measured by using a scale created by Pascarella and Terenzi (1980) that was designed to operationalize this variable (Morris, 2002).
- Initial Goal and Institutional Commitments – This group of variables consisted of a student's highest expected academic degree, highest expected academic degree at that particular institution, and the student's pre-enrollment ranking of college choice. Goal and Institutional Commitments (initial) were measured using data collected on the Transfer Student Experiences Survey (Morris, 2002).
- Persistence – continued enrollment in the same Christian university in the spring semester of 2006.
- Prior Schooling – This variable was measured by the student's grade point average at their previous institution, as self-reported by the student.
- Skills and Abilities – This variable was measured by a student's composite score on the ACT (American College Test) or SAT (Scholastic Achievement Test).
- Social Integration – The social integration variable consisted of a student's extra curricular activities, peer group interactions, and interactions with faculty and staff. Extra-curricular activities were measured by the student's response to the question, "In the past academic year, approximately how many hours per week, on the average, did you spend in organized extra-curricular activities" (i.e. organizations, athletics). The peer group interactions variable was measured using

a scale by Pascarella and Terenzi (1980) which was designed to operationalize this variable. Faculty/staff interaction was also measured with a scale created by Pascarella and Terenzi (1980) to operationalize this variable (Morris, 2002).

- Spiritual Integration – The spiritual integration variable consisted of the following: 1) a student's perceptions of their development of a Christian worldview, 2) their level of faith development and identity formation, and 3) how satisfied they were with their ability to talk to faculty about faith issues, grow spiritually, get involved in ministry opportunities, and integrate their faith and learning in the classroom (Schreiner, 2000). A spiritual integration scale created by Schreiner was used to measure this variable (Morris, 2002).
- Transfer shock – the decline in GPA during transfer students' first semester at the four-year school (Rhine, Milligan & Nelson, 2000).
- Transfer student – a student who entered the private, four-year university from another college or university. The student completed at least 12 hours of transferable college work at one or more previous institutions and graduated from high school before January 1, 2005 (to eliminate students with only dual credit course credits).
- Transition – the transformation of the transfer student that occurs as a result of the change in environment to the new university; impacted by the students' goal and institutional commitments as well as their academic, social, and spiritual integration.
- Withdrawal – failure of a student to be enrolled in the same Christian university in the spring semester of 2006.

### *Summary*

This chapter has presented an overview of the study and the transfer process for students coming to a Christian University. This chapter began with an examination of the transfer function, then it presented the two primary models for research on student retention (Astin and Tinto), and the construct of spiritual integration was introduced. This chapter has also shown that this study was an examination of three of the key constructs of the Tinto model, as well as the Spiritual Integration construct which may be especially useful in the Christian university context. This chapter has also examined the purpose of the research, the specific research questions, the need for this study in the current literature, and it specified the parameters and definitions of the research.

The next chapter examines the current literature in this area, as well as providing a broader discussion of the Astin and Tinto models. Chapter three details the research design and methodology which were used in this study, as well as the research instrument and the sample size and source. The fourth chapter of this study reports the results of the examination of the data and the results from the statistical analysis of each research question. The final chapter provides the results of the study as well as conclusions which can be drawn, and recommendations which can be made as a result of the research.

## CHAPTER TWO

### Review of Literature

#### *Introduction*

The transfer function has always been a significant component of the mission of the community college. This chapter points out the historical place of the transfer function by presenting the findings from an extensive search of the literature over the last forty years regarding the transfer of students and their transition into their new institution. This chapter contains five sections: the first section examines the history of the transfer function; the second section contains a presentation of the three primary perspectives from which the transfer experience has been examined (psychological, environmental, and climate of the campus); the third section describes the two most frequently used and significant conceptual frameworks utilized to examine the experiences of transfer students (from Astin and Tinto); and, the final two sections summarize the essential research on transfer students and on those few specific studies looking at transfers to Christian universities.

#### *The Transfer Function*

Community Colleges in the United States were established as a way to meet the educational needs of a growing nation which was discovering that higher education was an important part of the lives and futures of an increasing portion of the population. The institutions most commonly called community colleges today were originally established

as junior colleges in an effort to separate the first two years of college or the lower division from the upper division or the last two years (Brint & Karabel, 1989; Cohen & Brawer, 1996).

These new institutions were focused on preparing students for transfer to the universities where they would be able to complete their bachelor's degree. In the past six decades, the role and mission of these institutions have broadened greatly. Now they are typically known as community colleges and their focus is on providing needed education to students in their geographic service area in curricular areas such as job skills, vocational training, continuing education, and in preparation for transferring to a four-year university in order to complete the bachelor's degree.

During the first decades of their existence, these institutions enrolled only a small portion of the student population, but in the last sixty years that has changed dramatically as the number of community colleges has increased significantly and the demand of students wanting to enroll has grown exponentially. The American Association of Community Colleges (2005) reports that there are now more than 1100 community colleges and more than 11 million students enrolled in credit and non-credit programs. This extended time of growth began on June 22, 1944 when Congress passed the Servicemen's Readjustment Act (or GI Bill) which provided much wider access to higher education through financial aid for veterans after World War II (Greenberg, 2004).

The sheer number of students enrolling in higher education as a result of the GI Bill increased the population of enrolled students at virtually all higher education institutions – including community colleges. As a result of the education provisions of the GI Bill, 2.2 million veterans attended two- and four-year colleges and universities



(Greenberg, 2004). This legislation opened the door of opportunity to millions of students and many of them chose the community college as the right starting point for them (Cohen & Brawer, 1996).

In the 1946-1947 school year, 455,000 students enrolled in two-year colleges which was a fifty-four percent increase over enrollment the previous year. Four years later, two-year college enrollments had reached 562,000 which was a ninety percent increase over the enrollment at the end of World War II (Dennehy, 1999). Today, forty-six percent of the undergraduate students enrolled in higher education are found in community colleges (AACC, 2005). Throughout all of the changes and transitions, one of the most important functions of community colleges has remained the transfer function (Cohen & Brawer, 1982, 1989, 1996).

As more students began to realize the value of higher education, community colleges provided a place for many of them to begin their studies, with the typical intention of transferring to a four-year college or university in order to complete their bachelor's degree. In 1991, Terzian conducted a survey of 1,950 four-year colleges and universities and found that they were experiencing rapid growth in the number of students who were beginning their college work in community colleges and then transferring to their institution. McGraw (1999) noted that "more students than ever before are choosing to complete their first two years of school at a community college." The National Center for Education Statistics indicates that in the fall semester of 2002 more than one million first-time freshmen were enrolled in community colleges (2004). In recent years, the enrollment in higher education has increased and the number of

students transferring from one institution to another has also increased (Wawrzynski and Sedlacek, 2003).

The transfer function continues to be tremendously significant for thousands of students enrolled in community colleges today (Eaton, 1994). Therefore, preparing students to transfer remains an essential function of the community college for students who could not go directly from high school to a four-year college, whether that was due to economic circumstances or as a result of their poor academic performance previously. Bradburn and Hurst (2006) indicated that seventy-one percent of beginning community college students intended to earn at least a bachelor's degree. So, each year, thousands of students transfer from the nation's community colleges to four-year colleges and universities, both public and private. Recent research (Hoachlander, Sikora, Horn & Carroll, 2003; Morris, 2003) indicates that twenty-nine to thirty percent of students who first enrolled in a community college transferred, which would mean approximately 1.9 million of the 6.5 million currently enrolled community college students.

As the number of students transferring has continued to grow, there has been a great deal of research done to examine this function of the community college and how effectively it prepares students for the transition to the four-year institution. Often the community college is seen as a "second chance" for students who don't start at a four-year institution, and in this way they provide an important alternative route to the four-year degree (Berkner, He & Cataldi, 2002; Surette, 1997). Some studies have suggested that the community college can actually make it easier for some students to enter a higher-quality four-year university than they would have been able to enter directly from high school (Eide, Goldhaber & Hilmer, 2000; Townsend, McNerny & Arnold, 1993).

In contrast, Pascarella and Terenzini (2005) indicate that Burton Clark (1960) coined the term “cooling-out” to describe the effects he observed among community college students who were directed away from pursuing a bachelor’s degree and toward an associate’s degree or a certificate program. In an examination of this effect, Pascarella, Edison, Nora, Hagedorn, and Terenzini (1998) observed that enrollment in a two-year college led to a twenty to thirty percent increase in the number of students who reduced their aspirations for a bachelor’s degree. These same results are seen in the work of Carter (2001) and McCormick (1996, 1997).

Maddox (1998) cited several studies (Dougherty, 1994; Noel & Levitz, 1985; Tinto, 1993) indicating that research over the past few decades reinforces the idea that students from the community college that transfer to the four-year university have difficulty achieving their dream of a bachelor’s degree. Several other studies, which have utilized national student samples, have concluded that the net effect is negative on students beginning in a two-year institution and desiring to transfer and complete a bachelor’s degree (Christie, 1999; Ganderton & Santos, 1995; Rouse, 1995; Whitaker & Pascarella, 1994).

Smith (1999) cited two additional studies which reiterate the challenge of achieving the bachelor’s degree for those who begin in a community college (Pincus and Archer, 1989; National Center For Education Statistics, 1997). One of the most significant observations of students in the two-year college was that many of those who indicated a desire for a bachelor’s degree never transferred to a four-year institution (Berkner, He & Cataldi, 2002). In their study, Berger and Melaney (2003) indicated that up to eighty percent of all credit students at community colleges say they want to transfer,

but forty percent actually enroll in a track for transfer to a four-year university and only ten percent eventually transfer.

In contrast, some recent research has begun to show that while the number of students transferring is much less than the number of students indicating a desire to transfer, those who do transfer are as likely to persist to a degree as those who begin at a four-year institution (Adelman, 1998, 1999; Cuccaro-Alamin, 1997; Lee, Mackie-Lewis & Marks, 1993, Piland, 1995). Several studies have indicated that this effect may be due to the fact that students who do transfer more closely resemble those who enrolled in the four-year institution initially, they have been continuously enrolled, and they have experienced academic and social integration at the two-year institution (Bradburn, Hurst, & Peng, 2001; Cohen & Brawer, 1996; Townsend, McNerny, & Arnold, 1993).

Harrison (1999) argued that most of the studies conducted regarding transfer students have focused on the outcomes of transfer students (mainly GPA and graduation), instead of considering the process of transferring. Many of these transferring students have had difficulties in the new environment, but there has been very little research to examine those difficulties, the resulting problems for students, and the use of that information to make adjustments in both the two-year and four-year institutions. Gaining this information was one of the primary purposes for this study, especially as it relates to private universities.

### *Three Perspectives on Adjustment*

In the early 1970's, three researchers each presented models regarding the effect that the college experience had on students and how those experiences could affect the decisions of students. The first of these was Spady in 1970 with his theoretically based

model of the undergraduate dropout process, and that was followed by Astin's I-E-O model in 1971. In 1975, Tinto published the first version of his longitudinal model of student departure, which was based on the work of Spady, and this work launched what has become a national conversation on the departure of students from colleges and universities.

In the subsequent three decades, there has been a tremendous amount of research published regarding the attrition and retention of college students (Astin, 1985, 1993; Braxton, 2000; Braxton, Hirschy & McClendon, 2004; Liu & Liu, 2000; Pascarella, 1985; Tinto, 1987, 1993). These studies have focused, primarily, on those factors which positively or negatively impact student's decisions to stay at a particular institution or to drop out. Few of these studies, however, have examined the factors related to the adjustment of college students. Hurtado, Carter, and Spuler (1996) indicated that college adjustment has not typically been the subject of any systematic study. It is significant to note that college adjustment is very different from those factors which relate to the retention of students at a particular institution.

The existing research on college transfer students presents three main perspectives in the examination of college student adjustment (Laanan, 1998). The first of those perspectives, and the most prevalent, is the psychological. The second perspective points to the environmental factors or the climate of the new campus as the key to the student's transition. This has especially become an important theory as the student demographics on the nation's college campuses have continued to change and diversify. The third perspective related to adjustment difficulties focuses on the structural challenges that

transfer students encounter and it attributes student difficulties to the unfamiliar climate of the four-year institution's unique values, culture, and expectations.

The psychological perspective on transition difficulty is built upon the idea that this transition creates a type of psychological distress in the student. As an example, Smedley, Myers, and Harrell (1993) utilized a stress-coping model in reviewing the transition experiences of minority freshmen. The study utilized three different points of data collection and a different type of instrument was used at each point to examine a different type of stress that the students were experiencing. In order to gauge the events in their lives causing stress, the Life Events Survey for College Students was utilized in the summer prior to beginning classes. In the middle of the fall semester, the researchers administered the Current Concerns Scale in order to gauge the strain placed upon the students, especially in their many roles. Finally, the stress from their minority status was evaluated through the Minority Student Stress Scale, which was developed for their research project.

The resulting analysis of the data from these three instruments revealed a connection between the transition to the university setting and the adjustment outcomes of psychological distress, feelings of well-being, and academic achievement. Thus, the research pointed to psychological causes for the student's reactions to their new institution, which were especially acute for minority students who experienced additional psychological pressures (Smedley et al, 1993).

The model that Smedley et al. (1993) advanced indicates that the student's adjustment to college is a function of their attributes, psychological and cultural stresses, and the strategies students use to cope with those stressors. Thus, these researchers

concluded that stress comes from internal or personal factors as well as social and demographic considerations and the environmental and structural factors of the specific college or university. This perspective is represented in the conceptual framework for this study which considered both the student's academic background and their family background as factors in the adjustment model, as well as treating the academic, social, and spiritual integration as separate but interactive systems.

The environmental perspective is reflected in the study by Hurtado, Carter, and Spuler (1996) which indicated that it is essential to assess the structural characteristics and the climate of the four-year institution's campus and how those factors may affect the student's transition, either by making it easier or more difficult. Their study found that one of the most significant environmental factors in the college setting was the response of faculty members. There has been a great deal of research done that points to the importance of quality time spent with faculty members in student's decisions to persist at a given institution and to perform well there (Astin, 1984, 1993; Kuh & Hu, 2001; Mohr, Eiche & Sedlacek, 1998; Pace, 1984, 1992; Pascarella & Terenzini, 2005; Tinto, 1987).

The need for quality time with faculty is even more essential for transfer students from community colleges where they were accustomed to significant time with faculty and the availability of assistance. These different experiences can have a significant influence on the student's perception of the transfer experience. In order to have a complete picture of the adjustment of transfer students, it is essential that the time spent with faculty members is considered. This perspective was also represented in the conceptual framework for this proposed study which included both formal and informal aspects of the academic and social systems and the students' integration into them.

The climate of the campus, outside the educational environment, is the third perspective which also has a significant impact upon the transition and persistence of transfer students. The campus climate can consist of such diverse factors as the multiculturalism of the student body, interaction between students of different backgrounds, openness to new students after the freshman year, as well as student's perceptions of the openness of the campus. Another institutional factor which can influence the adjustment is the perceived selectivity of the institution, because transfer students will feel challenged to perform to the level of their peers (Laanan, 1998). This perspective was represented in the conceptual framework for this proposed study which included integration into the formal and informal aspects of the social system of the university.

Finally, some studies indicate that the size of the campus may also be a significant factor which will affect the student's perceptions of community or of isolation, as well as influencing the perception of their significance to the institution (Astin, 1993; Chickering & Reissner, 1993). This effect can be seen in the student's social involvement at the four-year institution and in the impact of that involvement on persistence (Ethington, 1997; Stoecker & Pascarella, 1991).

### *Conceptual Frameworks for the Study*

There are a tremendous number of authors who provide some type of theoretical framework for the understanding of transfer students and students in transition. However, as you examine the literature of the field, there seem to be two key theories which authors refer to as the primary models in need of consideration. In volume two of the seminal work of Pascarella and Terenzini (2005), there is a chapter on "Theories and



Models of Student Change in College,” where the authors present the work of Astin and Tinto as the essential frameworks to utilize in understanding the research on how college affects students. In the same way, Ishler and Upcraft (2005) discuss only these two models in their chapter on “The Keys to First-Year Student Persistence.”

### *Astin’s I-E-O Model and Theory of Involvement*

Alexander Astin (1971, 1993) developed one of the first and longest-lasting models to help in the task of understanding the impact of college on students. This is the Input-Environment-Output Model (Figure 3), which is less of a theoretical model than it is an attempt to conceptually guide the study of college students. It is founded on the basic premise that the success of a student is a reflection of the person that the student was before enrolling and of those things that happened to them after they enrolled in the university. The model includes three sets of elements: Inputs, Environment, and Outputs.

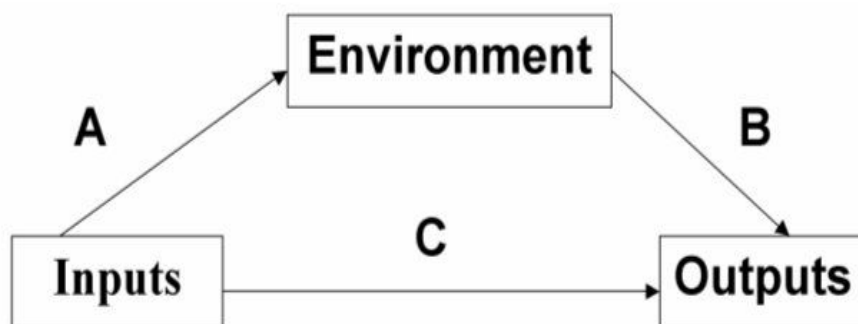


Figure 3. Astin's I-E-O Model (Astin, 1991)

Astin’s work indicates that the student enters college with a preexisting set of characteristics and perceptions (called the Inputs). These Inputs can include family

background, high school grades, test scores, race, gender, ethnicity, marital status, and their individual reasons for attending the university. Astin's conceptual model indicates that the Input elements not only directly influence the student Outputs (through the path designated as C), but they also have an effect (path A) on the Environment which also (path B) influences the student Outputs. Thus, the Inputs are significant factors as a result of this double influence (Astin, 1993; Pascarella and Terenzini, 2005).

The second set of elements in Astin's model indicate that there are several environmental factors which have an influence on the student's transition experience and on their outcomes. These Environment factors may include the institutional characteristics of the new university, peer group characteristics, academic major, experiences, place of residence, financial aid, and student involvement. The environmental factors differ based on the student Inputs and experiences, but they directly affect (as seen in path B of the model) the student Outputs.

The final component of the I-E-O Model advanced by Astin is labeled as the Outputs. These Outputs can include such things as satisfaction with the college environment, student characteristics, beliefs, behavior, academic achievement, academic understanding, abilities, attitudes, career development, and retention (Astin, 1993; Pascarella and Terenzini, 2005). Astin has actually identified 146 possible input variables; 192 environmental factors; and 82 outcome variables (Ishler and Upcraft, 2005). According to Astin's model, these factors interact and intersect and create the opportunity for tremendous impact upon students. Astin's I-E-O model provides a crucial context for the understanding of transfer students and it is one of the two frameworks for this study.

In addition to developing a framework to guide research on college students, Astin also developed a Theory of Involvement as a result of his work with longitudinal studies of college student persistence and the important function of higher education as a means of talent development. This theory was developed as a way to explain the dynamic process of change or development which affects college students (Astin, 1984, 1993; Harrison, 1999; Pascarella and Terenzini, 2005).

After looking at those factors that affect retention, Astin formulated a theory which advanced the concept that students learn by being involved, and as they become involved they will remain enrolled (Astin, 1985). “Quite simply, student involvement refers to the amount of physical and psychological energy that the student devotes to the academic experience” (Astin, 1984, p. 297). Therefore, Astin’s model simply indicates that a student who is involved spends time engaged in activities and events on campus and that involvement is a significant predictor of the likelihood of the student remaining at the present institution (Amenkhienan and Kogan, 2004). The opposite impact is also presented, where a student who is uninvolved is expected to be disengaged and is more likely to not persist at the university (Astin, 1984). These ideas are detailed in the five basic postulates of Astin’s theory:

1. involvement requires the investment of psychological and physical energy in “objects” of one sort or another (such as tasks, people, or activities), whether specific or general
2. involvement is a continuous concept; different students will invest varying amounts of energy in different objects
3. involvement has both quantitative and qualitative features

4. the amount of learning or development is directly proportional to the quality and quantity of involvement
5. educational effectiveness of any policy or practice is related to its capacity to induce student involvement (Astin, 1985)

According to Astin (1985), this theory “can be stated simply: Students learn by becoming involved” (p. 133). That same perspective is reflected in the other theory and framework which will provide a foundation for this proposed study – Tinto’s Theory of Student Departure.

#### *Tinto’s Theory of Student Departure*

The second key model for research in this area was developed by Tinto and his work also supports the importance of student involvement in the transition experience for transfer students (Tinto, 1993). He specifically pointed to the need to understand the connection between student involvement in learning and the resulting impact on persistence (Milem & Berger, 1997).

Tinto’s original model was introduced in 1975 and it has received a great deal of examination, critique, and feedback (Milem & Berger, 1997). The development of Tinto’s model began with the work of Arnold Van Gennep, an anthropologist, who studied the process of gaining membership in societies. Tinto was especially interested in the component of Van Gennep’s research which focused on the movement from one type of membership to another, especially from youth to adult status. Tinto cited Van Gennep’s classic 1960 study, *The Rites of Passage*, and its three stages of separation, transition, and incorporation (Tinto, 1993).

Using Van Gennep's research as a foundation, Tinto based his model on the three steps or stages of integration, and his use of these stages has been supported by Elkins, Braxton, and James (2000). The first stage of the college student experience is separation and it successfully occurs when the student is able to disassociate themselves from the social norms of their previous communities – like their previous college, their family, and their high school friends. Often these previous communities have different values, norms, behaviors, and ideas than the college community. As a result of these differences, and in order for the student to effectively integrate into the new campus community, there must be at least some transformation and possibly rejection of the norms of previous communities. “In a very real sense, a person's ability to leave one setting... may be a necessary condition for subsequent persistence in another setting” (Tinto, 1993, p. 63).

The second stage is focused on the transition and it comes either during or after the separation stage. Transition is the stage where students find themselves separated from their previous norms, but they have not yet fully taken on the norms of the new institution. This can be a very challenging time for many students because there is a sense of disconnectedness – they are no longer tightly connected to their previous norms and behaviors nor are they yet firmly attached to the norms and behaviors of their new community. Students who come from families, schools, or communities whose norms and behaviors are very different from the new university the student has chosen to enter may have an especially difficult time (Tinto, 1993).

The third stage, incorporation, finally occurs when new students adopt the norms and behaviors of the new campus community, and it can only happen when they have passed through the other stages of separation and transition. While the first two stages

tend to occur near the beginning of a student's time at the university, incorporation is not assured. The student is still faced with the challenge of adopting new behavior patterns that are appropriate, but typical university communities lack formal rituals and ceremonies to connect these students to the campus community. It is important in the university community that the incorporation includes both the academic and social life of the institution (Tinto, 1993).

Van Gennap's research provided a beginning for Tinto's work to develop a theory of student departure, but it did not encompass the largely informal interactions which take place in the university setting and which led to the incorporation of individuals. As a result, Tinto began a continuation of the work of Spady (1970) who had already begun to utilize the theory of suicide developed by Durkheim in 1951 to explain the connection of community and departure (Tinto, 1993). Tinto based his work upon the idea that students come to the university with a background which contains unique family experiences, school experiences, personal expectations, skills, and goals. These perspectives and expectations are then affected and reshaped by the student's interactions with the individual and group level aspects of the academic and social systems of the university (Pascarella and Terenzini, 2005).

One of the key aspects of Tinto's (1993) model (shown in Figure 4) is that it is a longitudinal model. It represents an attempt to capture and describe the process which occurs over a period of time with students' decisions regarding departure – with departure from the university as the ultimate decision. As seen in Figure 4, the model is arranged along a time continuum which moves from left to right. The first set of factors which influence the model and the outcome are those which the student brings with them

to the campus – their family background, prior schooling, and specific skills and abilities. Those factors influence the student’s initial intentions as well as their commitment to their individual goals and the institution they are attending. On-going, external commitments also influence these decisions, as these decisions also affect those external commitments.

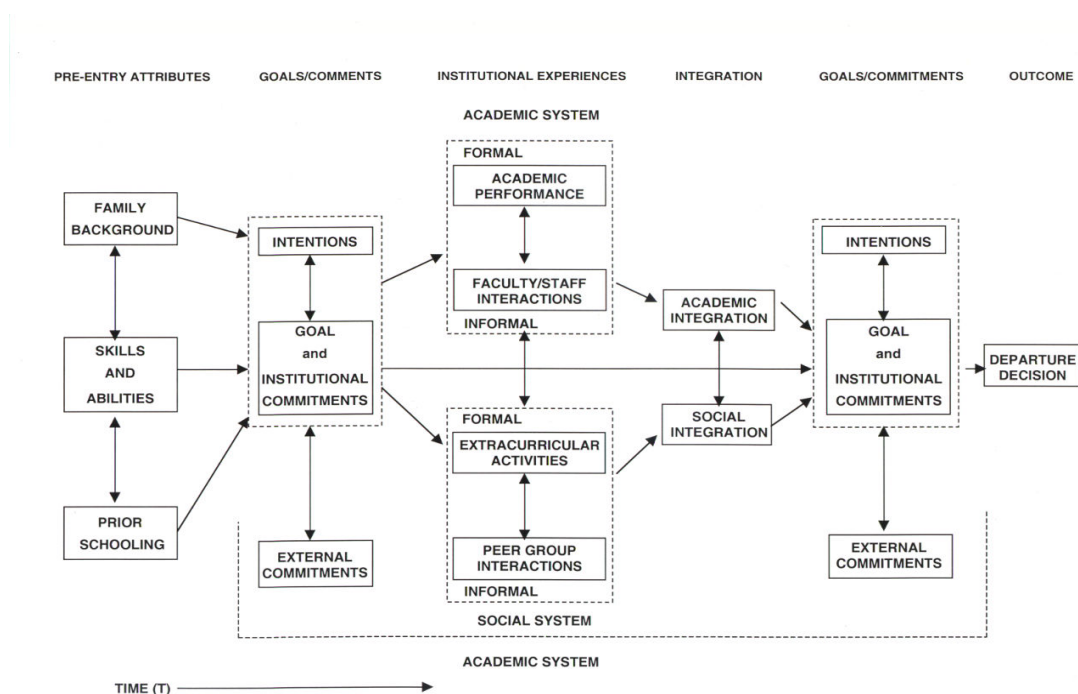


Figure 4. Longitudinal Model of Student Departure (Tinto, 1993)

From that basis of initial commitment, Tinto’s model of student departure presents a dual framework of both academic and social systems into which the student is to integrate (Tinto, 1987; Maddox, 1998). Each of these systems has both a formal and an informal component, and both components play an important role in the student’s integration within the institution. In this multi-dimensional model, Tinto (1993) also points out that integration into one system does not indicate that a student will be

integrated into the other system. For example, if a student becomes very connected in the social system, but not in the academic system, then they will likely find themselves serving an academic suspension as a result.

Tinto (1993, 1997, 1998) argues that both of these systems, the academic and social, play a role in retaining students. He also does not indicate that the integration needs to be equal between the two systems. A lack of integration in one or the other systems also does not automatically indicate departure, but he indicates that some level of student integration socially and academically must occur in order for the student to remain at the college or university. The students' experiences and integration at the new institution, as well as their background characteristics and experiences shape the student's new set of intentions as well as their continuing commitments to their individual goals and this institution. These decisions and the students' external commitments are the primary influences on the student's decision regarding departure from the university.

Pascarella and Terenzini (1983) conducted a study to verify Tinto's theory and they found that academic integration tended to be more influential on men and social integration had a greater effect on women. However, they also found that high levels of one integration often made up for low levels in the other. Tinto (1998) observes that, "in most cases, academic integration seems to be the more important form of involvement" (p. 169). Some authors (Elkins, Braxton and James, 2000; Woosley, 2003) have indicated that the effects of social integration are more significant at the start of the students' experience at the new institution and, subsequently, the academic integration begins to play a more significant role, and Tinto's own observations have affirmed this initial concentration on social integration (1997, 2000).



Tinto's model indicates that there are two dimensions to both the academic and social systems of the institution – formal and informal – and that this is a reflection of the different pathways to integration (Tinto, 1998). Interactions with the formal and informal academic and social systems of the campus can lead to a greater level of interaction and integration in that area, as well as an increase in persistence at the institution (Braxton and Caboni, 2005). Integration reflects the level to which the student's attitude and values reflect that of the majority of the students and faculty of the university. As the integration of the student increases, they become more committed to both their own individual goals as well as to the goals of the institution which they understand are contributing to the achievement of their personal goals as well (Pascarella and Terenzini, 2005). Tinto also argues that both academic and social integration are essential to the retention of the student (Ishler & Upcraft, 2005; Tinto, 1993), and the influences of the academic and social integration also interact with each other in ways which foster student persistence (Tinto, 1998).

As the result of several critiques of his work, Tinto chose to revise his original model in 1993 in order to reflect more of the interaction between perception and behavior in students and the effects which that had on their integration with the institution both academically and socially. Tinto (1998) indicates that many of the critiques of this model have resulted from questions with regard to its relevance to different types of institutions.

Braxton, Sullivan, and Johnson's (1997) examination is an example of the critique of Tinto's model and the question of its relevance and applicability outside of four-year, residential university settings. These authors examined the tremendous number of studies which have utilized Tinto's model and they concluded that there were some significant

shortcomings in the model, primarily related to its use in non-traditional settings.

However, nine of the thirteen identified propositions in the model were found to be supported.

This same line of investigation was presented by Braxton, Hirschy and McClendon (2004) who seriously questioned the academic integration component of Tinto's model, while affirming the social integration aspect. However, one of the weaknesses of the Braxton, Hirschy and McClendon study was their use of a box score type of approach in analyzing the studies which they included in their research review because it treated all studies as equal without respect to their sample size, methodology, or the effect size. The Braxton, Hirschy and McClendon study also failed to effectively repudiate the hundreds of applications of this model among traditional institutions. In fact, a meta-analysis conducted by Robbins, Lauver, Le, Davis, Langley and Carlstrom also released in 2004 found that, in the 190 studies they examined, both academic integration and social integration strongly correlated with student retention, especially in institutions like those included in this study.

While there have been critiques of the Tinto model, it remains the most widely used and the most significant model in the understanding of student transition and attrition -- with over 775 citations (Braxton, 2000; Braxton, Hirschy and McClendon, 2004; Braxton, Sullivan, and Johnson, 1997; Pascarella and Terenzini, 2005). Tinto's model also points to the importance of universities directly addressing the needs of students who transfer in order to insure that adequate opportunities for connectivity occur for these new students. This model is especially relevant to this study because each of the institutions studied were four-year, residential universities -- exactly the type of

institution that Tinto's model has been shown to be most reliable in studying (Braxton, Sullivan, and Johnson, 1997; Robbins, Lauver, Le, Davis, Langley, and Carlstrom, 2004; Tinto, 1998).

### *Other Models of Student Growth and Change*

In addition to these two primary conceptual models, there are a number of other models and frameworks which authors have presented to assist in understanding student satisfaction, integration, and departure. Among the more utilized are contributions from Pascarella (1985), Terenzini (1980), and Bean and Metzner (1985). While these add to the discussion of transfer students and their engagement in the institution, these theories have not risen to the level of impact which can be seen through the models of Astin and Tinto in this area of research.

### *Spirituality*

It is easy to see that there is a growing interest in spirituality within higher education today -- Tisdell (2003) goes so far as to indicate that in higher education "spirituality is a hot topic" (p. 2). The "Spirituality in Higher Education: A National Study of College Students' Search for Meaning and Purpose" project which was undertaken by the UCLA Higher Education Research Institute in 2003 is a great example of the intense interest in this area within higher education. This project examined the responses of 112,232 freshmen, attending a wide variety of institutions, in the fall of 2003 in order to provide more information regarding spirituality's importance to and effect upon college students (Bartlett, 2005). That study and its national scope reflect the broad interest in these issues, and this research study is also likely to fuel further research in this area of study in the future.

The UCLA study utilized a definition of “spirituality” which focused on “believing in the sacredness of life, seeking out opportunities to grow spiritually and believing that we are all spiritual beings” (Green, 2005). The UCLA study results indicated that today’s college students show a very high level of interest and involvement in spirituality and religion. While the interest in spirituality may seem like a new focus on some university campuses, “spirituality has been a hallmark of CCCU schools across their rich histories. Words like intentionality, integration, pedagogies for spirituality, an epistemology of life, liturgy, and living, and faith development have long been accurate descriptors at the soul of CCCU schools” (Green, 2005, p. 1).

### *Spiritual Integration*

Schreiner (2000) was one of the first authors to present a consideration of the importance of spiritual integration in the Christian university. Her study was part of a FIPSE (Fund for the Improvement of Postsecondary Education) project which examined data collected from Council for Christian Colleges and Universities member schools and evaluated the forces affecting retention at those Christian universities. As a part of her work on this Quality Retention Project, Schreiner developed the concept of spiritual integration, as well as a set of indicators for it.

Through her examination of the data from the CCCU institutions, Schreiner (2000) found that students who were spiritually integrated into the university indicated that:

- They feel comfortable with the level of spirituality on campus.
- They are growing spiritually, and attribute that growth to being on campus.
- They are satisfied with the opportunities for ministry available to them.

- They find the support they need on campus when they are struggling with doubts and questions.
- They are challenged to critically examine their faith and values, within the context of supportive relationships.
- They feel comfortable talking to faculty and staff about faith issues.
- Their understanding of God is being strengthened by experiences they are having in the classroom and elsewhere on campus.
- They are learning ways of connecting “knowing” with “doing” – connecting their knowledge of God with living a lifestyle that is congruent with that knowledge. (p. 10)

Schreiner (2000) concluded that spiritual integration is demarcated by three indicators: students perceptions of their development of a Christian worldview; their level of faith development and identity formation; and, how satisfied they are with their ability to talk to faculty about faith issues, grow spiritually, get involved in ministry opportunities, and integrate their faith and learning in the classroom. In order to measure these indicators, Schreiner developed these five questions:

1. Being on this campus is contributing to my spiritual growth.
2. My understanding of God is being strengthened by classroom and/or campus experiences.
3. Faculty, administrators, and/or staff are helpful to me in processing issues related to my faith.
4. This campus provides adequate opportunities for involvement in ministry.
5. Given where I am spiritually right now, this campus is a good fit for me.

In an extensive review of the literature over the last twenty years, only a few studies (Hartley, 2004; Morris, 2002; Morris, Smith, Cejda, 2003; Morris, Beck, Smith, 2004 – all discussed later in this chapter; and, Walter, 2000) were found which included a spiritual integration concept within the consideration of the student departure decision. The first of these was Walter (2000) who continued the work of Schreiner (2000). Her examination of the data from fifty-five CCCU institutions found that several characteristics had a positive impact on student persistence: class level, graduate or professional school aspirations, living on campus, satisfaction with academic life, and satisfaction with social life. Also, using Schreiner's indicators, Walter (2000) found that students who were more satisfied religiously were more likely to persist.

Hartley (2004) undertook a study to determine the impact of students' religious faith and practice upon student retention. The study examined first to second year retention in a group of eight church-related universities. The study used survey instruments administered in Fall 2002 and Spring 2003 to gauge the level of religious involvement and the effect on retention. From an initial population of 1618 students, there was a final sample of 408 students (a 25.2% response rate) that completed both surveys. The Hartley study concluded that there was support both for the Tinto propositions and the applicability of the Astin model to this population. In that study, religious involvement was included as a component of social integration in the Tinto model, and it proved to be a significant predictor of retention. Hartley concluded that it should be included in future investigations of retention at church-related institutions.

Most of the research using Tinto's model has focused on public universities, but even those studies that have looked at Christian universities have typically failed to incorporate a consideration of spiritual integration. Yet, Christian universities are the perfect place for this perspective to be included and this should be a consideration when evaluating the "fit" of students within the institution, since it is a crucial aspect of the institutions' identity and character. Therefore, this study included a consideration of the spiritual integration of students, along with the more common academic and social integrations.

### *Research on Transfer Students*

The increasing enrollment of students in community colleges, and their subsequent transfer to four-year colleges and universities has led to a number of research studies of transfer students and their success in the new four-year institution. These studies have shown a great diversity in their approaches, including quantitative studies (Berger and Melaney, 2003; Underwood, 1998; Wawrzynski and Sedlacek, 2003), qualitative studies (Flaga, 2002; Green, 2001; Harrison, 1999), longitudinal studies (Anderson, 1999; Campbell, 2002), and studies of national data sets (Dougherty, 1992; Grubb, 1991). Sample sizes have ranged from seven or ten in qualitative studies to thousands of students in quantitative studies.

The majority of these studies have focused on the academic success and persistence to a bachelor's degree of students who transfer to the university (Astin, 1971; Dougherty, 1992; Hinshaw, 2003; Pascarella & Terenzini, 1991; Piland, 1995). There have been few studies which have examined the actual transition experiences of transfer students (Flaga, 2002; Green, 2001; Hinshaw, 2003; Laanan, 1996). Nor have there been

many studies which have specifically focused on transfer experiences at private colleges or universities (Cejda & Kaylor, 1997; Schreiner, 2000; Townsend, 1995).

As an open access institution, the community college is required to provide a place for students of all levels of academic ability to enroll in college level courses. Because of this intentional lack of selectivity, faculty members in the four-year colleges and universities often see these students as potentially under-prepared when they transfer to the four-year schools, and they often classify them as a risk (Cejda, 1997; Hill, 1965; Keeley & House, 1993; Laanan, 1999; Townsend, 1995; Mann, 1969). Many faculty members and administrators are unwilling to take a chance on many transfer students as a result of this perception. This can also result in a very frustrating experience for these students as they must seek to prove themselves to each faculty member they encounter.

As a result of this challenge, researchers have undertaken many studies to see if this is an inaccurate perspective, and to see whether transfer students would perform at the same level as native students (Anderson, 1977; Glass Jr & Harrington, 2002; Gold, 1979; Graham & Dallam, 1986; Graham & Hughes, 1994; Hartmann & Caple, 1969; Laanan, 2001, 2004; Milville and Sedlacek, 1995; Richardson & Doucette, 1980; Young, 1974). There are studies which have found support for either perspective, but most still indicate that, at least initially, students who transfer are likely to struggle academically, at least in their first semester.

Another focus of the research on transfer student's academic success has been the comparison of students GPA in the community college and their GPA in the first semester or two at the four-year school. Observation of the trend of transfer student grades falling in their first semester at the four-year institution led Hill (1965) to be the



first to coin the term *transfer shock* in his review of the research regarding transfer student success conducted from 1928 to 1964. Hill (1965) gives credit to Showman (1928) for the first research to compare transfer student academic performance to that of native students. His work examined the students at UCLA in the fall of 1926. His study examined the records of 53 transfer students and 250 native students and found that the native student's upper division grades were better than that of the transfer students, whose lower division grades (at the junior college) had been higher than the native students.

Hill's own research led him to three conclusions: (1) an appreciable drop in grades should be expected by transfer students in the first semester after transferring; (2) the grades of transfer students will likely improve relative to the amount of time they remain at the institution; and (3) students who began at the four-year university will usually perform better than students who transfer there. Cohen & Brawer (1989) indicate that researchers have found, for decades, that transfer student's grades were lower than that of students which had started at the four-year university, at least in their initial term of enrollment.

Since Hill's work, many studies have documented the *transfer shock* phenomenon (Cejda, 1994, 1997; Cejda & Kaylor, 1997; Cejda, Kaylor, & Rewey, 1998; Diaz, 1992; Glass Jr & Harrington, 2002; Graham & Hughes, 1994; Laanan, 2001, 2004; Rhine, Milligan, & Nelson, 2000; Townsend, 1993, 1995). These studies have found that transfer students do tend to experience a dip in their grades during their first or second semester after transferring to the four-year institution. The *transfer shock* construct has become a significant factor in the examination of the performance of students transferring

from a community college to a four-year institution. Often this dip in grade point average is attributed to the more difficult academic environment at the university or the failure of the community college to adequately prepare students academically. However, the research supporting this theory is rather limited and it fails to examine other factors which may influence student performance (Laanan, 1998).

Knoell and Medsker completed the first national study of transfer students in 1965 and it continued the practice of comparing transfer students from community colleges to students that were native to the four-year college. The large, national pool of transfer students supported some of the previous findings regarding transfer students, such as the likelihood of academic difficulty, the difficulty of successful transfer, the effect of large enrollments in the four-year universities, and the lower rate of graduation for students who transfer.

Cohen and Brawer (1982) compared the attrition and graduation rates of transfer and native students to their GPAs. In their study, the community college transfers had lower GPAs and higher attrition rates than the native students. Graham and Dallam (1986) provided a rare look at all transfer students (not just those from the community college), and they also found that transfer students were much more likely to end up on academic probation than were native students.

Over the years, more research has continued to be produced examining transfer shock. One of the most significant efforts was undertaken by Diaz (1992) who conducted a meta-analysis of the various studies regarding transfer shock. His work looked at 62 studies that reported a GPA change for transfer students. The study revealed that 79% of the studies did show a GPA change, but in most cases it was less than one half of a grade

point. More significantly, the meta-analysis showed that, in 67% of the studies, the transfer shock wore off, typically after the first year of transfer. These findings indicate that transfer students do experience academic difficulty at the time of their transfer to the new institution, but that it is not typically reflective of their actual academic ability.

Keeley and House (1993) and Townsend (1993) attribute the initial academic difficulty experienced by transfer students to the more rigorous academic standards at the four-year institution, and with the many other transition challenges that they face at the new institution. Diaz (1992), in his meta-analysis, argues that while the initial dip in GPA is apparent, it is typically limited and short-term. Transfer students typically reestablish their GPA and often finish with better standing than native students. Ultimately, the *transfer shock* concept only examines the student's cognitive transition, but pays very little attention to their emotional or social development at the new institution (Laanan, 1998).

The transfer shock theory attempts to model a linear relationship between attendance at a community college, transfer to a four-year university, and a subsequent dip in GPA. Absent from this linear reasoning are all of the individual factors which could be affecting student performance, including environmental factors, climatic factors, and individual preparation for the transition. This study included consideration of each of these factors in order to work toward a more holistic picture of student transition.

In 1998, Laanan undertook the task of explaining the difficulties of transfer students from a broader perspective than simply the academic transition and "transfer shock". In order to obtain the information needed for the study, Laanan created a new survey instrument – the 304 item UCLA Transfer Students' Questionnaire – which used

rating scales and categorical scales to collect information from three areas: social demographics, community college experiences, and UCLA experiences. The survey instruments were mailed to the students' home addresses in the third week of the fall quarter 1996.

The target populations for this study were students who had transferred from a California community college to UCLA in the 1994 or 1995 school years. Laanan (1998) received useable surveys from 717 transfer students of the 2,369 who received surveys, which reflects a response rate of 30%. Each of these students provided information about their experiences as well as their academic and personal transition experiences coming to UCLA from the community college. Laanan's study examined their responses to questions about the academic and social adjustment process (dependent variables) as they related to the social demographics, community college environment, and the UCLA environment (independent variables). The intent of this study was to examine the ability of transfer student's previous and current levels of involvement to predict their social and academic adjustment (Laanan, 1998).

Laanan conducted between group analysis based on three factors: age group (traditional versus non-traditional); student status (participation or non-participation in UCLA's Transfer Alliance Program - TAP); and, racial/ethnic category. The age group analysis concluded that students in the two age categories were likely to have very different experiences at the university, but both were likely to have a similar adjustment experience. TAP and non-TAP students were also similar in their transitions and satisfaction. The racial/ethnic analysis indicated that white and non-white students were likely to have very different experiences at both the community college and at UCLA.

Laanan (1998) found that both social and academic involvement on the UCLA campus were significant factors in predicting a positive transfer experience for community college transfer students.

The weaknesses of Laanan's study began with the inclusion of transfer students at only one institution – UCLA –this institution was also a highly selective, research institution with a national reputation which may have influenced both the students who transferred there and the results of the study. Also, the questionnaire used was very long and its length and the lack of any incentive for students to complete it may have contributed to the lower response rate. There are few institutions as uniquely positioned as UCLA is, so it is important that Laanan's research be tested in other university settings to confirm the validity.

A recent meta-analysis project (Robbins et al, 2004; Lotkowski, Robbins, & Noeth, 2004), supported by ACT, examined 109 research studies and found three factors which were most effective in predicting academic success for college students – academic goals, academic self-confidence, and achievement motivation. Each of these identified factors were included in this study. The students' academic self-confidence was measured through responses to questions 4, 7, 10, 12, and 40. Academic goals were the focus of questions 54 and 55, and achievement motivation was gauged through questions 36, 37, and 38.

### *Studies of Transfers to Christian Universities*

While there have been numerous studies of transfer students conducted in the last twenty years, very few have included students that transfer to private universities and even fewer have focused exclusively upon this aspect of the nation's higher education

system. Cejda and Kaylor (1997) indicate that in their literature search on academic transitions, they were unable to find a single study that specifically looked at transfer students at private universities and they only found 3 studies (conducted between 1967 and 1978) which included information on students who had transferred to a private university.

Cejda and Kaylor (1997) conducted one of the few examples of a study specifically looking at private colleges, and in this study they examined the use of the community college by students enrolled in two small, Catholic, liberal-arts colleges. This study included no examination of the transition experiences of those students in coming to the four-year schools, but it did provide an analysis of the ways in which students in these private universities were using the resources of the community college.

In addition, Cejda and Kaylor (1997) were only looking at a single traditional area of transfer integration – academic integration. However, one of the most unique aspects of the nation’s Christian universities (specifically those in the Council for Christian Colleges and Universities) is an intentional integration of faith in all areas of university life. Thus, it would be most appropriate to include a measure of spiritual integration in the conceptual framework in order to provide greater understanding of the transfer student’s experience at these institutions.

One of the few examples of a study that incorporates this spiritual dimension was a study done by Morris (2002) which actually examined the application of Tinto’s model in a Christian university context and added a spiritual integration component to the model. While Morris’ study examined freshmen at one mid-sized Christian university, most of the processes and procedures were appropriate for this study as well.

Morris' study was designed to test three of Tinto's core constructs in the Christian university environment, while adding a spiritual integration component to the examination of freshman retention. The study used demographic data from the Student Information Form that all new students at the university were asked to complete in their first semester at the university. There were 1029 freshmen who entered the institution in the fall semester, and 923 returned in the spring semester. Of those 923, 750 had completed the Student Information Form and supplied their social security number to allow for data matching (Morris, 2002).

Then, in the twelfth week of the spring semester, the students were given another instrument which included the Institutional Integration Scales and a spiritual integration scale (Morris, 2002). The persistence of this group was determined in the following fall semester, based on students who had reenrolled. There were 430 students who completed the integration surveys and whose information could be matched with the Student Information Form responses, so these 430 students comprised the final sample used in the analysis. This reflected an overall response rate of 47% of those students who returned to the university for the spring semester, and 57% of those students who had completed the Student Information Form in the fall semester and returned in the spring semester.

The study found that there were two variables in the academic integration scale – cumulative gpa and academic and intellectual development – which proved to be significant and proved to predict retention at a rate of 99.7% (Morris, 2002). In the social integration constructs there were also two variables which proved to be significant predictors of persistence at the institution – extra curricular hours and peer group interaction – again to the 99.7% level of success in predicting persistence. In addition,

the Goal and Institutional Commitment construct and the Spiritual Integration measure were also significant predictors of persistence for freshmen at this Christian university (Morris, 2002).

In subsequent research with the same set of data, Morris, Smith and Cejda (2003) observed that a logistic regression analysis of Tinto's constructs and an added spiritual integration measure found that the Spiritual Integration construct was a significant predictor of retention, at least at this one Christian university. In 2004, Morris, Beck, & Smith used a principal components analysis with Varimax rotation to examine this same population and determined that the fit indices were significantly redundant and that Spiritual Integration was the most reliable predictor of student retention with this population, correctly classifying 88.6% of the sample with regard to persister status. These same constructs, including the Spiritual Integration construct, were included in this study.

While the Morris study (and the subsequent works with the same set of data) provided a foundation for this study, it represents a look at only one Christian university which limits the application of the results to a broader set of institutions. The Morris study also utilized data from across three semesters worth of the student's interaction with the university, which separated the two survey instruments from each other and which may have affected the results of the study. Morris himself notes these limitations and suggests that future research should look at additional Christian universities, as well as studying more than one institution at a time (Morris, 2002; Morris et al, 2003; Morris et al, 2004)



### *Summary*

Nationally, the number of transfer students enrolling in colleges and universities is growing. As institutions seek to serve these students, there is a tremendous need to understand them, their needs, and how to retain them at the university. Hinshaw (2003) observed that “a substantial body of research has been developed regarding the first-year experience in general, but there is a real need to focus specifically on community college transfers” (p. 23). This need is especially true at tuition-dependent Christian universities, where retention is a significant concern. This study took those necessary steps by looking more closely at the experiences of transfer students as they transitioned to three Christian universities.

There have been a number of models developed to help in the understanding of student departure, but two of these have been consistently cited as among the most significant – Astin’s and Tinto’s. Those two models provide the foundation for this study of transfer students. While there has been little examination of transfer students at Christian universities, the studies by Laanan (1998) and Morris (2002) provided great assistance in developing this study -- including the emphasis on the adjustment of transfer students and the inclusion of a spiritual integration component.

While he did not look at this type of institution, Laanan’s (1998) study was one of the most significant influences on this study due to its emphasis on the transition experiences of transfer students, not just the final outcomes. In addition, Morris’ (2002) study significantly shaped this study by including a spiritual integration component into the conceptual framework of Tinto’s Theory of Student Departure. This study extended the same type of research found in both of these studies to a similar, yet very different,

group of students as they transferred into three different private, Christian universities from other colleges and universities.

The next chapter will describe the actual research design for this study, including the variables considered and the instrument that was utilized. Chapter four will then present the results of the data analysis of the student responses, in answer to the six research questions of this study. Chapter five then summarizes this research, presents the major findings of the study, makes some recommendations for application at Christian universities, and draws some conclusions.

## CHAPTER THREE

### Methodology

#### *Introduction*

In this chapter, the author presents the methods and procedures that were utilized in this study of transfer students. The chapter contains the following sections: (a) the research design, (b) a description of the population and sample, (c) the survey instrument, (d) the procedures for the collection of the data, (e) the research questions addressed, and (f) the methods to be utilized in analyzing the data. This research was designed to provide insight and perspective on the experiences of students who transferred to three Texas Christian universities, and to look for some predictors of these student's success and persistence.

#### *Research Design*

This study used a non-experimental, quantitative, survey research design. This type of design was chosen primarily because the majority of the research done examining Tinto's model has utilized a survey design. The cross-sectional data was collected with a single questionnaire (the Transfer Student Experiences Survey) and data from the official university records for each institution. The independent variables were not manipulated and there was no intervention provided during the study. The transfer students in the study were asked to complete and return a survey instrument (Transfer Student Experiences Survey found in Appendix A) which was mailed to them as well as being available electronically. This instrument was adapted by the researcher from one used in

a previous persistence study (Morris, 2002). The survey instrument was used to ask questions regarding the students' backgrounds, experiences at their previous institution, preparations for transfer, their adjustments to the new universities, and their experiences at the new institutions.

### *Population and Sample*

The three institutions included in this study differed in institutional size, location, and degree programs offered. However, each was a well-established, Christian university with a long history of service to students in their area. All three universities were also members (full or affiliate) of the Council for Christian Colleges and Universities. The students at these three universities represented a wide range of socioeconomic backgrounds as well as educational goals and family situations.

Institution A was classified by the Carnegie Foundation for the Advancement of Teaching (2006) as a "Bac/Diverse: Baccalaureate Colleges – Diverse fields" institution which enrolls approximately 50 new transfer students each year as a part of its overall population of 1,400 students and is located in a small city of approximately 20,000 residents. Institution B was classified as a "Masters M: Master's Colleges and Universities (medium programs)" university which has an enrollment of approximately 4,700 students, including more than 140 new transfer students each fall, and is located in a city of 117,000 people. Institution C was classified as a "RU/H Research Universities (high research activity)" institution and has an enrollment of 14,000, with more than 400 new transfer students each fall, and it is located in a city with a population of 114,000.

A purposive sampling process was used with this study. The sample included all students enrolled at each of the three institutions who had transferred to the university in

the fall semester of 2005, with at least 12 credit hours from one or more other colleges or universities and who had graduated from high school before January 1, 2005, in order to exclude students whose college hours had been exclusively obtained through dual-credit programs. This type of sample was utilized in order to provide the broadest cross-section of input from transfer students as possible.

The final population for this study was comprised of 603 transfer students. Of this sample population, only 303 (50%) had valid mailing addresses to utilize with the mailed component of the study. The final sample included 57 students from Institution A, 142 from Institution B, and 404 from Institution C (only 104 of which had a mailing address). Each transfer student included in the sample also had a valid email address which was utilized to communicate with these students.

### *Instrumentation*

The instrument (See Appendix A) used in the study was adapted from one used by Morris (2002) which was based upon a previous instrument (The Institutional Integration Scales) created by Pascarella and Terenzini (1980). Morris' instrument used the original Pascarella and Terenzini questions and added five additional questions from the Schreiner (2000) spiritual integration construct. This study utilized that same set of questions and added an additional nine questions from Laanan (1998), which examined the transition experiences of transfer students, and included twenty-one demographic questions which provided the information necessary for a robust analysis of the data. The survey included items utilizing a standard 5-point satisfaction scale (1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, and 5=strongly disagree), as well as items asking for demographic information from the transfer students.

There are five scales which were primarily used to test the operational validity of Tinto's constructs: academic integration, social integration, and institutional and goal commitment. The five scales utilized were:

*Academic and Intellectual Development*

- I am satisfied with the extent of my intellectual development this semester. (Question Q. 4)
- My academic experience this semester has had a positive influence on my intellectual growth and interest in ideas. (Q. 10)
- I am satisfied with my academic experience at this university this semester. (Q. 2)
- My interest in intellectual ideas and intellectual matters has increased this semester. (Q. 7)
- I am more likely to attend a cultural event (for example a concert, lecture or art show) now than I was a year ago. (Q. 3)
- I have performed academically as well as I anticipated I would. (Q. 12)

*Faculty Concern for Student Development and Teaching*

- Few of the faculty members that I have had contact with this semester are genuinely interested in students. (Q. 33)
- Few of the Faculty members I had contact with this semester are genuinely outstanding or superior teachers. (Q. 32)
- Few of the faculty members I have had contact with this semester are willing to spend time outside of class to discuss issues of interest and importance to students. (Q. 27)
- Most of the faculty members I have had contact with are interested in helping students grow in more than just academic areas. (Q. 35)
- Most faculty members I have had contact with this semester are genuinely interested in teaching. (Q. 34)

### *Peer Group Interaction*

- The student friendships I have developed this semester have been personally satisfying. (Q. 16)
- I have developed close personal relationships with other students. (Q. 13)
- My interpersonal relationships with other students have had a positive influence on my personal growth, values and attitudes. (Q. 17)
- My interpersonal relationships with other students have had a positive influence on my intellectual growth and interest in ideas. (Q. 14)
- It has been difficult for me to meet and make friends with other students. (Q. 18)
- Few of the students I know would be willing to listen to me and help me if I had a personal problem. (Q. 20)
- Most students here have values and attitudes which are different from my own. (Q. 22)

### *Interactions with Faculty*

- My non-classroom interactions with faculty this semester have had a positive influence on my personal growth, values and attitudes. (Q. 30)
- My non-classroom interactions with faculty members have had a positive influence on my intellectual growth and interest in ideas. (Q. 29)
- My non-classroom interactions with faculty this semester have had a positive influence on my career goals and aspirations. (Q. 31)
- This semester, I have developed a close personal relationship with at least one faculty member. (Q. 28)

### *Goal and Institutional Commitment*

- It is important for me to graduate from college. (Q. 36)
- It is likely that I will register at this university next fall. (Q. 39)
- It is not important for me to graduate from this university. (Q. 37)

- I have no idea at all what I want to major in. (Q. 8)
- Getting good grades is not important to me. (Q. 9)
- I am confident that I made the right decision in choosing to attend this university. (Q. 38)

In addition, the scale measuring spiritual integration was also included, just as it was in the Morris (2002) study. This is the scale that was developed by Schreiner (2000) and utilized by Walter (2000). It included these questions:

#### *Spiritual Integration*

- Being on this campus is contributing to my spiritual growth. (Q. 5)
- My understanding of God is being strengthened by classroom and/or campus experiences. (Q. 11)
- Faculty, administrators, and/or staff are helpful to me in processing issues related to my faith. (Q. 15)
- This campus provides adequate opportunities for involvement in ministry. (Q. 21)
- Given where I am spiritually right now, this campus is a good fit for me. (Q. 25)

Finally, two scales measuring transfer student adjustment were also included – academic and social adjustment. These were the two adjustment scales which Laanan (1998) used in his research and items which were not relevant to these institutions were modified or removed, as noted below, to fit the Christian university environment. They included these questions:

#### *Academic Adjustment*

- Adjusting to the academic standards has been difficult. (Q. 40)
- There is a sense of competition between/among students at this school that is not present at the community college. (Q. 42)



- My level of stress increased when I started at this university. (Q. 45)
- I experienced a dip in grades during the first and second semester. (This item was removed because the students will not have received any grades at the time of the administration of the instrument; subsequent Registrar's office reports should provide first semester grade point averages for all students.)
- It was difficult going from the semester to the 10-week quarter system. (This item was removed because the three Christian universities included in this study all operate on a semester system, so the question was unapplicable.)

### *Social Adjustment*

- Adjusting to the social environment has been difficult. (Q. 41)
- I am very involved with social activities at this school. (Q. 43)
- I am meeting as many people and making as many friends as I would like at this university. (Q. 44)
- It is easy to make friends at this university. (Q. 46)
- I feel more comfortable making friends with transfer students than non-transfers. (Q. 47) (This item was taken from a "general perceptions of UCLA" variable in Laanan's study and placed in this scale.)

Table 1 illustrates the relationship between each variable, research question, scale, and item on the actual survey:

The survey instrument did not contain the variable names or the scales, nor was it divided into sections indicating the focus of those questions; that was an intentional effort to avoid any potential leading of the student's responses. The survey instrument was presented to the student with a focus on gaining a clearer understanding of the experience of transferring to Christian universities and on the use of that information to assist other transfer students and provide a smoother transition experience. The instrument provided

Table 1

*Variables, Research Questions, Scales, and Items on Survey (Morris, 2002)*

<i>Variable Name</i>	<i>Research Questions</i>	<i>Scales</i>	<i>Item on Survey</i>
Academic Integration	<b>Research Question 2:</b> After controlling for statistically significant pre-enrollment variables, was <i>academic integration</i> a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?	Academic and Intellectual Development  Faculty Concern for Student Development and Teaching	2,3,4,7,10,12  27,32,33,34,35
Social Integration	<b>Research Question 3:</b> After controlling for statistically significant pre-enrollment variables was <i>social integration</i> a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?	Peer Group Interactions  Interaction with Faculty	13,14,16,17,18,20,22  28,29,30,31
Goal and Institutional Commitments	<b>Research Question 4:</b> After controlling for statistically significant pre-enrollment variables were <i>goal and institutional commitments</i> significant predictors of transfer students' first semester to second semester persistence at Christian institutions of higher education?	Goal and Institutional Commitments	8,9,36,37,38,39
Spiritual Integration	<b>Research Question 5:</b> After controlling for statistically significant pre-enrollment variables was <i>spiritual integration</i> a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?	Spiritual Integration	5,11,15,21,25
Student Adjustment	<b>Research Question 6:</b> What demographic, previous institution and current university factors affected the transfer students' successful adjustment to Christian universities?	Academic Adjustment  Social Adjustment	40,42,45  41,43,44,46,47

responses to sixty-nine questions and that facilitated the examination of thirty-one variables.

### *Variables*

The Transfer Student Experiences Survey (Appendix A) and student records from each university were used to measure the seven variable categories. Variables in the first category (Pre-enrollment attributes) were controlled as covariates. Each set of variables was operationalized as follows:

#### I. Pre-Enrollment Attributes – twenty variables

##### A. Family Background

1. Gender (coded 1 = female, 2= male) (Question Q. 49)
2. Ethnicity (1 = white, 2 = nonwhite) (Q. 50)
3. Religious affiliation (Q. 51)
4. Parents combined annual income (derived from six ordinal categories ranging from “less than \$20000” to “more than \$100,000”) (Q. 58)
5. Father’s formal education (derived from the level of formal education, using six ordinal categories ranging from “Elementary School” to “Graduate Degree”) (Q. 56)
6. Mother’s formal education (derived from the level of formal education, using six ordinal categories ranging from “Elementary School” to “Graduate Degree”) (Q. 57)

##### B. Skills and abilities

1. Student's composite score on the ACT (American College Test) (Q. 53) or the SAT (Scholastic Aptitude Test) (Q. 52)
2. Student's self-reported average grade in High School (four categories ranging from "A" to "D") (Q. 62)

C. Prior schooling

1. Student's grade point average from previous institution (Q. 63)
2. Type of institution previously attended (coded into three categories: "Community Colleges", "Public four-year universities" and "Private Colleges") (Q. 64)
3. Number of semesters at the previous institution (five categories ranging from "one" to "five or more") (Q. 65)
4. Number of hours transferred from the previous institution (Q. 66)

D. Current School

1. Attendance at a summer orientation session for new students to the university (coded 1=attended and 2=did not attend) (Q. 61)
2. Where the student resides during the semester (Q. 68)
3. How many hours the student works during a week while they are in school (Q. 67)

E. Initial Goals/Commitments – five variables

1. The student's highest degree planned anywhere (six categories ranging from "bachelors" to "other") (Q. 54)

2. The student's highest expected academic degree at that particular institution (five categories ranging from "bachelors" to "other") (Q. 55)
3. The student's pre-enrollment ranking of this college choice (four categories ranging from "#1" to "Lower than #3") (Q. 59)
4. The student's indicated reasons for transfer to this university (Q. 69)
5. The student's indicated most significant reason for transfer to this university (Q. 70)

## II. Academic Integration – three variables

- A. Fall 2005 semester grade point average (from a subsequent university report)
- B. A six-item factorially derived scale measuring a student's perceived level of academic and intellectual development (Q. 2,3,4,7,10,12)
- C. A five-item factorially derived scale measuring a student's perceived level of and faculty concern for student development and teaching (Q. 27,32,33,34,35)

## III. Social Integration – three variables

- A. The average number of hours per week a student spends participating in extra-curricular activities. (five categories ranging from "0 hours" to "More than 15 hours") (Q. 60)

B. A seven-item factorially derived scale measuring the extent and quality of students' interaction with their peers (Pascarella and Terenzi, 1980) (Q. 13,14,16,17,18,20,22)

C. A four-item factorially derived scale measuring the quality and impact of students' out of class contact with faculty (Pascarella and Terenzi, 1980) (Q. 28,29,30,31)

#### IV. Goals and Commitments – Subsequent - one variable

A six-item factorially derived scale measuring a student's desire to graduate from college and commitment to graduate from the institution they are currently attending (Q. 8,9,36,37,38,39)

#### V. Spiritual Integration – one variable

A five-item scale designed to measure a students' spiritual integration into the Christian university campus environment (Q. 5,11,15,21,25)

#### VI. Departure Decision – one variable

Determined in the spring of 2006 from records provided by each university (If the student reenrolled they were coded "1", if they did not reenroll they were coded "2") (from a subsequent University report)

#### VII. Student Adjustment – two variables

A. A three-item scale designed to measure a students' academic adjustment to the Christian university campus environment (Q. 40,42,45)

B. A five-item scale designed to measure a students' social adjustment to the Christian university campus environment (Q. 41,43,44,46,47)

The analysis of these thirty-one variables provided a great deal of information regarding the experience of transfer students entering Christian universities. These responses also provided the data which was analyzed in order to answer the research questions in this study.

### *Pilot Study*

In order to determine the most effective method of delivering the Transfer Student Experiences Survey to a group of transfer students, a pilot study was conducted in July 2005. This pilot study utilized the same survey instrument (Appendix A) that was planned for the full survey, but the letter was modified with the dates for the pilot study. A paper version of the pilot study was sent to a sample population of twenty transfer students who had entered Institution B in the fall semester of 2004, along with a postage-paid return envelope. In addition, the same information was sent as an email (with a link to the electronic version of the survey) to fifty-five other transfer students that had also entered Institution B in the fall semester of 2004. A modified version of the follow-up procedure was followed through the sending of an additional copy of the survey instrument and a second letter sent two weeks after the initial mailing.

The pilot study's focus was on which method of delivery to the students received the stronger response rate. Unfortunately, the results were inconclusive, with 45% of those receiving the paper survey completing and returning it and 31% of those receiving the electronic version completing it. While it was not a conclusive response the pilot study group results led to the use of mailed paper surveys in the actual studies for all students who had a local mailing address.

### *Data Collection*

Each of the three universities provided the researcher with an electronic extract from their administrative computing system, following the twelfth day of enrollment in the fall 2005 semester. This extract contained the contact information for each student that was currently enrolled in their first long semester at that institution, having transferred there from another college or university with at least twelve hours accepted for transfer, and having graduated from high school prior to January 1, 2005.

In October 2005, each transfer student with a valid mailing address was mailed a cover letter describing the importance of the project and the importance/confidentiality of their participation (see Appendix B); a self-addressed, stamped return envelope; and, a copy of the survey instrument - which was four pages in length (see Appendix A). Each student was assigned an identification code and that code was printed on each survey to help provide confidentiality for respondents, while facilitating the identification of non-respondents and providing a means to match survey responses with subsequent data from each university. Students without a valid mailing address were sent the same information regarding the study via an email message (see Appendix C), along with a link to a web-based version of the survey instrument.

Students that had not returned their surveys within fourteen days received a reminder email (see Appendix D) asking them to complete the survey as soon as possible. A second email reminder (see Appendix E) was sent ten days after the first reminder email to continued non-responders. A second letter (see Appendix F) and a second copy of the instrument were mailed fourteen days after the second reminder email to all students, with a valid mailing address, that had not yet returned their surveys in order to



secure as many student responses as possible. Another reminder email (Appendix G) was sent to all non-responders fourteen days after the second set of mailed surveys. A final emailed reminder was sent after the semester was over to secure as many responses as possible (Appendix H).

The multiple rounds of follow-up and reminder resulted in the receipt of completed surveys by 348 of the 603 transfer students, which was reflected in an overall response rate of 58%. Institution A achieved a response rate of 46% based on 26 respondents from the original population of 57 transfer students. Institution B had 85 of their 142 transfer students complete the survey for a 60% response rate. Finally, 237 of Institution C's 404 transfer students submitted a completed survey resulting in a 59% response rate. All students who received the mailed surveys were also provided with the web address of the on-line survey if they preferred to complete their survey on-line, and 82% of all of the completed surveys were completed on-line.

### *Data Analysis*

Logistic regression was the primary statistical technique utilized in this study. Logistic regression was chosen because the outcome or predictor variable in this study was dichotomous, that is, it had only two values: persister or non-persister. Logistic regression analysis was specifically designed for use when the dependent variable has two values (Wright, 1995). The primary research problem for this study was: What variables predict transfer students' successful persistence and transition experience during their first semester at Christian universities? There were six research questions which flowed out of this overarching research problem:

1. What are the demographic characteristics of students who transfer to Christian universities?
2. After controlling for statistically significant pre-enrollment variables, is *academic integration* a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?
3. After controlling for statistically significant pre-enrollment variables is *social integration* a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?
4. After controlling for statistically significant pre-enrollment variables are *goal and institutional commitments* significant predictors of transfer students' first semester to second semester persistence at Christian institutions of higher education?
5. After controlling for statistically significant pre-enrollment variables is *spiritual integration* a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?
6. What demographic, previous institution and current university factors affect the transfer students' successful adjustment to Christian universities?

Two primary stages of analyses were employed in order to answer most of the six research questions. First, Chi square and t-tests were calculated between all twenty of the pre-enrollment variables. These preliminary analyses determined if there were any covariates significantly related to the outcome variable. Covariates which were significant were controlled for in subsequent analyses. Chi square and t-tests also allowed

for an examination of the individual relationships between the predictors and the outcome variable (Morris, 2002).

The second stage of the analysis involved the use of logistic regression where all significant covariates and all appropriate variables were entered into the logistic regression equation. The logistic regression provided a chi square statistic and a classification table. A classification table summarizes the fit between the actual and predicted group membership informing one as to the quality of the predictors to significantly classify persisters and non-persisters. In addition, the logistical regression provided a significance test for the individual predictors in the equation (Morris, 2002).

The sixth research question was examined through the use of linear regression in order to determine which demographic and institutional characteristics affected the academic and social adjustment of new transfer students. The variables included in the analysis were the Student's Fall GPA and all twenty of the pre-enrollment variables (including gender, race, religious affiliation, family income, father's and mother's educations, ACT or SAT scores, high school GPA, the student's transfer GPA, type of institution previously attended, number of semesters at previous institution, the number of hours transferred from the previous institution, attendance at summer orientation, student's residence, average work hours each week, highest degree planned anywhere, highest degree planned at current institution, rank of current institution, reasons for selecting this institution, and the most significant reason for selecting the current institution).

### *Summary*

This chapter has presented the methodology utilized in this study. Cross-sectional data was collected through a single survey (the Transfer Student Experiences Survey found in Appendix A) and data from official university records was also utilized. The population for this study included all first-semester transfer students (with more than twelve hours of transfer credit) at three Christian universities located in Texas. Students were surveyed in the fall semester of 2005 and 348 of the 603 (58%) students in the sample completed the survey.

The survey asked students about their experiences at the Christian university in eight areas: Academic and intellectual development, faculty concern for student development and teaching, peer group interactions, interaction with faculty, institutional and goal commitments, spiritual integration, academic adjustment, and social adjustment. The survey also collected answers regarding the student's pre-enrollment attributes, their experiences at their previous institution, and their experiences at their current university.

The pre-enrollment data was evaluated through the use of Chi square and t-tests in order to identify significant covariates and answer research question one. The only significant covariate found was the Highest Degree Planned at Current Institution, which was included in the subsequent logistic regression analyses. Logistical regression was utilized to answer the research questions two through five in this study, and linear regression was utilized in response to question six.

The next chapter, chapter four, presents the results of the data analysis of these responses, in answer to the six research questions of this study. Chapter five then

summarizes this research, presents the major findings of the study, makes some recommendations for application at Christian universities, and draws some conclusions.

## CHAPTER FOUR

### Results

#### *Introduction*

As chapter one indicated, this study was an examination of the experiences of new transfer students at three Christian universities. This study looked at the characteristics of those students, their transition to the new university, and those factors which affected their adjustment and persistence at the same university. The organization of this chapter is primarily structured to reflect the order of the six specific research questions raised in chapter one. In response to the first research question, this chapter begins with the presentation of the demographic characteristics of the transfer students who participated in this study, including the twelve variables from Tinto's Pre-Entry attributes, five variables from Tinto's Goals and Commitments (initial), and three variables from Tinto's Social Integration construct. The chapter then turns to an analysis of the pre-enrollment characteristics of these students in order to determine which of those characteristics had a significant impact on the persistence of these transfer students. The next four sections of the chapter address research questions two through five by exploring the predictability of persistence based on academic integration, social integration, goal and institutional commitment, and spiritual integration. The final section of this chapter reflects upon the sixth and final research question and those demographic and institutional factors which impacted the transfer student's successful academic and social adjustment to their new institution.

### *Research Question One*

The first research question examined in this study was: What were the demographic characteristics of students who transfer to Christian universities? This section of the chapter presents the demographic characteristics of those transfer students who chose to participate in this study. These responses were provided by the students on their surveys and are all considered to be self-reported.

#### *Gender*

As shown in Table 2, male transfer students comprised a smaller proportion of the population who participated in this study than female transfer students at all three institutions. The overall participant population was comprised of 59.2% female and 40.8% male respondents. Institution B had the largest concentration of female participants with 61.4%, and Institution A's male participation was the largest at 46.2%. The gender distribution in this study is similar to that of the population of all college students nationally, which is 57% female (Chronicle, 2005).

Table 2

#### *Transfer student population by gender and institution*

Gender	Overall	Inst. A	Inst. B	Inst. C
Female	59.2%	53.8%	61.4%	59.0%
Male	40.8%	46.2%	38.6%	41.0%

### *Ethnicity*

Table 3 reflects the racial distribution of the students who participated in this study. The distribution of white and non-white students varied across the three institutions, with Institution C having the largest concentration of non-white students at 31.5% of their respondents and Institution B having the largest concentration of white students at 84.3%. The total study population was comprised of 72.9% white students and 27.1% non-white students. The distribution in this study was slightly more diverse than the overall national college student population which is comprised of 80% white students (Chronicle, 2005).

Table 3

#### *Transfer student population by ethnicity and institution*

Ethnicity	Overall	Inst. A	Inst. B	Inst. C
White	72.9%	76.9%	84.3%	68.5%
Non-White	27.1%	23.1%	15.7%	31.5%

### *Religious Affiliation*

Since all three of the institutions were religiously-affiliated universities, it was important to consider the religious composition of the transfer students at each institution. Table 4 indicates the religious groups represented among the transfer students in this study. The largest group of students was Baptist, which comprised 27.6% of the overall population. Students who described themselves as non-denominational represented 25.3% of the population, those indicating Church of Christ affiliation were 12.6% of the



students, and Catholic students were 9.8% of the total study population. The other significant group was comprised of students who did not fit within any of the available groupings and selected Other, which included 18.7% of the transfer student participants.

Table 4

*Transfer student population by religious affiliation and institution*

Religious Affiliation	Overall	Inst. A	Inst. B	Inst. C
Baptist	27.6%	73.1%	16.9%	26.4%
Catholic	9.8%	0.0%	4.8%	12.6%
Church of Christ	12.6%	0.0%	41.0%	4.2%
Lutheran	2.0%	0.0%	2.3%	2.1%
Methodist	4.0%	0.0%	1.2%	5.3%
Non-Denominational	25.3%	11.5%	20.5%	28.5%
Other	18.7%	15.4%	13.3%	20.9%

*Test Scores*

The mean ACT score for all of the survey participants was 24, and the mean SAT score was 1126. Students from Institution A had a mean score of 21 on the ACT and 1123 on the SAT. The mean score of participants from Institution B was 23 on the ACT and 1074 on the SAT. Institution C's transfer student ACT mean was a 25 and their SAT mean was 1142. Among all college students nationally, the average scores were 21 on the ACT and 1026 on the SAT (Chronicle, 2005).

### *Degree Goals*

There were two questions presented to survey participants regarding their collegiate degree goals. The first of these is summarized in Table 5, and it indicates the highest degree which students planned to pursue, regardless of the institution at which they planned to receive it. Forty-one percent of the transfer students indicated that their intention was to pursue a Master's degree as their terminal degree. Another 26.9% of the students indicated that a Bachelor's degree was the highest degree they intended to pursue.

Table 5

*Transfer student population by highest degree planned and institution*

Degree Planned	Overall	Inst. A	Inst. B	Inst. C
Bachelors	26.9%	30.8%	32.5%	24.5%
Masters	41.0%	42.3%	50.6%	37.6%
Doctorate	17.6%	26.9%	8.4%	19.8%
Medical	9.6%	0.0%	3.6%	12.6%
Law	4.0%	0.0%	2.5%	5.1%
Other	0.9%	0.0%	2.4%	0.4%

In addition to asking the students about their highest planned degree, the study also asked them to indicate the highest degree they intended to pursue at the institution in which they were currently enrolled. As indicated in Table 6, an overwhelming 72.8% indicated that a Bachelor's degree was the highest degree they planned to pursue at their

present institution. Seventeen point seven percent intended to continue their education at their current institution in order to receive a Master's degree.

Table 6

*Transfer student population by highest degree planned at current institution and institution*

Degree Planned	Overall	Inst. A	Inst. B	Inst. C
Bachelors	72.8%	76.9%	72.0%	72.6%
Masters	17.7%	7.7%	19.5%	18.1%
Doctorate	4.9%	7.7%	0.0%	6.3%
Professional	1.1%	0.0%	0.0%	1.7%
Other	3.5%	7.7%	8.5%	1.3%

#### *Father's Education*

Table 7 reflects the education levels of the study participant's fathers. There was a wide distribution of results, with 29.9% of the transfer student's fathers having graduated from college and another 20.6% whose father's earned a graduate degree. The other half of the respondent's fathers did not graduate from college, although 24.3% of the fathers did attend college even though they did not receive a degree. Approximately 8% of the transfer student's fathers did not even complete high school.

Table 7

*Transfer student population by father's education and institution*

Father's Education	Overall	Inst. A	Inst. B	Inst. C
Elem. School	3.2%	0.0%	1.2%	4.2%
Some HS	4.9%	7.7%	4.8%	4.7%
HS Graduate	17.1%	30.8%	8.4%	18.6%
Some College	24.3%	30.7%	27.8%	22.5%
College Grad	29.9%	23.1%	34.9%	28.8%
Grad Degree	20.6%	7.7%	22.9%	21.2%

#### *Mother's Education*

The education level of the study participants' mothers is shown in Table 8. There was a similarly wide distribution for the mother's education as there was for the fathers, but the results were somewhat different. Twenty-eight point six percent of the transfer student's mothers had a college degree and an additional 15.3% had a graduate degree as well. This meant that a total of 43.9% of the student's mothers had a college degree, in contrast to the 50.5% of the fathers who had a college degree. An additional 28.3% of the student's mothers did attend college but did not complete a degree. Of the student's mothers, only 5.8% did not graduate from high school.

Table 8

*Transfer student population by mother's education and institution*

Mother's Education	Overall	Inst. A	Inst. B	Inst. C
Elem. School	2.0%	0.0%	1.2%	2.5%
Some HS	3.8%	15.4%	0.0%	3.8%
HS Graduate	22.0%	15.4%	19.3%	23.6%
Some College	28.3%	38.5%	28.8%	27.1%
College Grad	28.6%	11.5%	31.2%	29.6%
Grad Degree	15.3%	19.2%	13.5%	15.4%

*Family Income*

Table 9 reflects a surprisingly broad distribution of parental income level among survey participants. The largest portion (21.5%) of the students came from families earning \$40,000 to \$60,000 a year. Yet, the second largest grouping was comprised of the 20.9% of students whose families earned more than \$100,000 a year. Only Institution C reversed the order of those two primary groupings, but even it reflected a broad distribution among the six income level groupings. Each institution included a surprising percentage of students from the lowest income level (less than \$20,000), ranging from 5.5% of Institution C's transfer students to 8.3% of Institution A's new transfer students.

Table 9

*Transfer student population by family income and institution*

Family Income	Overall	Inst. A	Inst. B	Inst. C
< 20k	5.9%	8.3%	6.4%	5.5%
20-40k	17.4%	20.8%	10.4%	19.5%
40-60k	21.5%	29.2%	25.6%	19.2%
60-80k	19.0%	20.8%	17.9%	19.2%
80-100k	15.3%	8.4%	17.9%	15.1%
> 100k	20.9%	12.5%	21.8%	21.5%

*Institution Choice by Rank*

A significant portion of the students who participated in this study were enrolled in the institution which they ranked as their top choice before enrollment. Table 10 indicates that 58.4% of the students were enrolled at their top ranked school and another 25.3% were at the institution they had ranked as number two. This distribution was found among the transfer students at all three institutions.

*New Student Orientation*

As Table 11 indicates, the distribution was similar between those students who did and did not attend a summer orientation program for new students at their institution. There were approximately fifty-five percent of the respondents who indicated that they did not attend an orientation program and about 45.2% indicated that they did participate in a summer orientation session.

Table 10

*Transfer student population by rank of current institution and institution*

Institution Rank	Overall	Inst. A	Inst. B	Inst. C
#1	58.4%	48.0%	53.7%	61.2%
#2	25.3%	32.0%	26.8%	24.1%
#3	8.2%	8.0%	7.3%	8.4%
Lower than #3	8.1%	12.0%	12.2%	6.3%

Table 11

*Transfer student population by new student orientation attendance and institution*

Orientation	Overall	Inst. A	Inst. B	Inst. C
Attended	45.2%	32.0%	50.6%	44.8%
Didn't Attend	54.8%	68.0%	49.4%	55.2%

### *High School Grades*

The overwhelming majority of the transfer students in this study indicated that their average grade in high school was an A or B as reflected in Table 12. Fifty-two point five percent indicated an average high school grade of A and another 42.9% indicated an average high school grade of B.

### *Transfer Grade Point Average*

Table 13 shows that the majority (50.4%) of these transfer students brought a collegiate grade point average greater than a 3.5 to their new institution. According to the information provided by the study participants, only 16.1% of these students came to their new institution with less than a 3.0 grade point average.

Table 12

#### *Transfer student population by high school grades and institution*

HS Grades	Overall	Inst. A	Inst. B	Inst. C
A	52.5%	34.6%	51.8%	54.7%
B	42.9%	65.4%	42.2%	40.7%
C	4.3%	0.0%	6.0%	4.2%
D	0.3%	0.0%	0.0%	0.4%

Table 13

#### *Transfer student population by transfer grade point average and institution*

Transfer GPA	Overall	Inst. A	Inst. B	Inst. C
< 2.0	0.4%	0.0%	1.3%	0.0%
2.0 – 2.49	1.7%	3.8%	2.5%	0.7%
2.5 -- 2.99	14.0%	11.6%	12.4%	15.4%
3.0 – 3.49	33.5%	30.8%	30.0%	36.1%
3.5 – 4.0	50.4%	53.8%	53.8%	47.8%



### *Previous Institution Type*

As shown in Table 14, each of the three institutions included in this study drew their students from different concentrations of previous institutions. More than 62% of Institution C's transfer students came from a community college, while only 36% of the students who transferred to Institution A did so from a community college. More than 21% of Institution B's transfer students came from other private universities, while only 8% of Institution A's students came from other private institutions. Overall, 57.1% of the students transferred from a community college, 27.7% from a public four-year institution, and 15.2% from another private institution.

Table 14

#### *Transfer student population by previous institution type and institution*

Previous Institution	Overall	Inst. A	Inst. B	Inst. C
Comm. College	57.1%	36.0%	49.4%	62.1%
Private 4 year	15.2%	8.0%	21.5%	13.8%
Public 4 year	27.7%	56.0%	29.1%	24.1%

### *Number of Semesters at Previous Institution*

Table 15 indicates that the majority of students who participated in this study chose to transfer to their new institution after spending one academic "year" at their previous institution. This is reflected in the 35.6% of transfers indicating two semesters (the equivalent of one academic "year") at their previous institution. Another 29.2%

indicated spending four semesters (or two academic “years”) at the previous institution, and 24.8% had been at the previous institution for five or more semesters.

Table 15

*Transfer student population by semesters at previous institution and institution*

Transferred Semesters	Overall	Inst. A	Inst. B	Inst. C
1	2.8%	4%	3.7%	2.5%
2	35.6%	32%	41.4%	33.9%
3	7.6%	16%	6.1%	7.2%
4	29.2%	24%	32.9%	28.4%
5 or more	24.8%	24%	15.9%	28.0%

#### *Number of Hours Transferred*

While the largest number of students reported (in Table 15) attending their previous institution for two semesters, Table 16 shows that 30.6% of the transfer students transferred sixty or more hours. A sizeable majority, 79.6%, indicated that they transferred thirty or more hours to their new institution.

#### *Weekly Work Hours*

As Table 17 indicates, the majority (51.2%) of these transfer students reported that they did not work while they were in school at this institution. Among those that did report working, 18.9% reported working more than 20 hours each week. Students who attended Institution A were the most likely to work at least some hours, with 69.2% of

their transfer students indicating some work hours each week, and with a significantly higher rate of students working more than 30 hours each week (26.9% versus 3.6% at Institution B and 5% at Institution C).

Table 16

*Transfer student population by hours transferred and institution*

Transferred Hours	Overall	Inst. A	Inst. B	Inst. C
Less than 15	3.6%	0.0%	1.2%	4.7%
15-29	16.8%	16.6%	26.2%	13.7%
30-44	27.6%	25.0%	23.8%	29.2%
45-59	21.4%	16.7%	22.5%	21.5%
60 or more	30.6%	41.7%	26.3%	30.9%

Table 17

*Transfer student population by weekly work hours and institution*

Work Hours	Overall	Inst. A	Inst. B	Inst. C
None	51.2%	30.8%	50.6%	53.6%
1-10	9.5%	3.8%	9.6%	10.0%
11-15	9.8%	7.7%	14.5%	8.4%
16-20	10.6%	23.1%	8.4%	10.0%
21-30	12.6%	7.7%	13.3%	13.0%
More than 30	6.3%	26.9%	3.6%	5.0%

### *Housing While in School*

Table 18 indicates that the majority of the transfer students in this study indicated that they live in off-campus housing. However, 31.9% live in some form of university housing, either a residence hall (19.3%) or another university-owned apartment or house (12.6%). A sizeable portion (46.2%) of the transfer students attending Institution A indicated that they lived in a residence hall, while 64.4% of the transfer students attending Institution C described their housing as off-campus.

Table 18

*Transfer student population by location of housing and institution*

Housing	Overall	Inst. A	Inst. B	Inst. C
Residence Hall	19.3%	46.2%	32.5%	11.7%
Other Univ.	12.6%	0.0%	25.3%	9.6%
Off campus	55.2%	34.6%	34.9%	64.4%
With family	12.9%	19.2%	7.3%	14.3%

### *Reasons for Selection*

There were a wide variety of reasons that transfer students indicated had influenced their choice of the institution in which they were enrolled. Students were allowed to check all of the reasons which applied to them in the first question in this area, and those responses are seen in Table 19. A very sizeable 67.9% overall indicated that academic reputation was one of the reasons they transferred to their current institution. Additionally, 44.3% of the respondents pointed to the spiritual environment as a reason

for their selection of this university and the geographic location of the institution played a role in the transition of 40.3% of these students.

Table 19

*Transfer student population by reasons for selection and institution*

Selection Reason	Overall	Inst. A	Inst. B	Inst. C
Friends here	28.1%	26.9%	37.6%	24.9%
Academic Reputation	67.9%	15.4%	49.4%	80.1%
Geographic Location	40.3%	53.8%	17.6%	46.9%
Athletic Opportunity	9.9%	15.4%	18.8%	6.2%
Spiritual Environment	44.3%	42.3%	64.7%	37.3%
Financial Aid	21.9%	26.9%	10.6%	25.3%

As Table 20 shows, when students were asked to name the most significant reason for their selection of their current university, the academic reputation was far more significant than any other response overall, with 41.3% of the transfer students selecting that as their most significant reason. The spiritual environment was a distant second reason, being selected by only 17.2% of the students. The responses did vary significantly, with 53.6% of the students from Institution C indicating academic reputation, while 46.2% of the Institution A students responded that geographic location was the most significant selection factor for them, and 39.5% of the Institution B transfer students noting the spiritual environment as the most influential factor on their selection of the institution.

Table 20

*Transfer student population by most significant selection reason and institution*

Most significant reason	Overall	Inst. A	Inst. B	Inst. C
Friends here	11.6%	11.5%	16%	10.1%
Academic Reputation	41.3%	0.0%	18.5%	53.6%
Geographic Location	16.0%	46.2%	6.2%	16.0%
Athletic Opportunity	7.3%	3.8%	13.6%	5.5%
Spiritual Environment	17.2%	26.9%	39.5%	8.4%
Financial Aid	6.6%	11.6%	6.2%	6.4%

### *Summary of Demographic Characteristics*

The transfer students who chose to participate in this study were a diverse and varied group both within and among the three institutions. The majority (59.2%) of the participants were female. In addition, non-white students comprised 27.1% of the study sample. The transfer students aspired to a wide range of degree goals, and more than 74% of their fathers and mothers attended at least some college. Surprisingly, the students came from a broad cross-section of family incomes to study at these three private universities, and the majority of them were attending their institution of first choice.

These students came to the new university from a wide variety of institutions but the majority had previously attended a community college, especially due to the impact of Institution C, where 62.1% of the transfer students had transitioned from a community

college. More than 83% of the transfer students came to their new university having received at least a 3.0 grade point average at their previous institution. The length of time they had spent at their previous institution was varied. However, at least 96% of the transfers at each institution had been at their previous institution a minimum of two semesters before coming to the Christian university.

Probably the most interesting information shared by these students reflected their stated reasons for selecting their current institution. Overall, academic reputation was the most influential factor, followed by the spiritual environment and the geographic location. However, when the students indicated the most significant reason for their selection of their current institution, the students at each institution chose very different responses. Those at Institution A indicated the geographic location was most important, those at Institution B chose the spiritual environment, and Institution C's transfer students affirmed that the academic reputation was the most significant factor for their decision.

#### *Pre-enrollment Variable Analysis*

Each of these pre-enrollment characteristics was reported by the transfer students who participated in the study. They all had the potential to be statistically significant and have an impact upon the logistic regression analysis, which was utilized to answer research questions two through five. Therefore, each of the characteristics were examined for significance in predicting transfer student persistence.

#### *Gender*

As Table 21 indicates, there was essentially no difference in the persistence percentage between male and female transfer students. A Chi square test (Table 42 – page 112) confirmed that the difference was not statistically significant. Ninety-four

percent of the female transfer students persisted and 95% of the male transfer students persisted. Therefore, 5.8% of the female students and 5% of the male students did not return to the same institution for the spring semester.

Table 21

*Transfer student persistence by gender*

Student Type	Female	Male	Total
Persister	94.2%	95%	94.5%
Non-Persister	5.8%	5%	5.5%

*Ethnicity*

Table 22 shows that there was a small difference in the persistence and non-persistence rates between white and non-white students. A Chi square analysis (Table 42 – page 112) confirmed that the difference was not statistically significant. White students who participated in the study persisted at a rate of 94.9%, while 93.5% of the non-white students persisted. This meant that 6.5% of the non-white and 5.1% of the white students did not persist.

Table 22

*Transfer student persistence by ethnicity*

Student Type	Non-White	White	Total
Persister	93.5%	94.9%	94.5%
Non-Persister	6.5%	5.1%	5.5%



### *Religious Affiliation*

As shown in Table 23, there was a wide representation of religious affiliations among the participants in the study, but none of those affiliations proved significant. A Chi square analysis (Table 42 – page 112) confirmed that the difference was not statistically significant. The percentage of students who did not persist ranged from 11.4% among students from Churches of Christ (labeled CofC in Table 23) to 0% for the small number of Lutheran students included in the study population.

Table 23

#### *Transfer student persistence by religious affiliation*

Student Type	Baptist	Cath	CofC	Luth	Meth	Non-Den	Other	Total
Persister	94.8%	97.1%	88.6%	100%	92.9%	96.6%	93.8%	94.5%
Non-Persister	5.2%	2.9%	11.4%	0%	7.1%	3.4%	6.2%	5.5%

### *Test Scores*

Table 24 indicates the mean, minimum, and maximum SAT scores for both persisters and non-persisters. A t-test (Table 42 – page 114) confirmed that the difference between the means was not statistically significant. The mean score for persisters was 1129 and the mean score for non-persisters was 1077.

Table 25 indicates the mean, minimum, and maximum ACT scores for both persisters and non-persisters. A t-test (Table 42 – page 114) confirmed that the difference between the means was not statistically significant. The mean score for persisters was 24 and the mean score for non-persisters was also 24.

Table 24

*SAT scores by persisters and non-persisters*

SAT	N	Min	Max	Mean	Std Dev
Persister	151	720	1520	1129	140.236
Non-Persister	11	890	1370	1077	164.930

Table 25

*ACT scores by persisters and non-persisters*

ACT	N	Min	Max	Mean	Std Dev
Persister	116	14	36	24	4.051
Non-Persister	10	19	32	24	4.575

*Highest Degree Planned*

The results in Table 26 indicated that students who planned to pursue a Law degree were the most likely to persist with a 100% persistence rate. Also, students pursuing a Master's degree or a Doctorate were also highly likely to persist, at rates of 95.1% and 96.7% respectively. The high rate of non-persistence among students who indicated Other as their highest planned degree was the result of a very small N of 1 in that cell from a total population of 3 students who indicated Other. Overall, a Chi square analysis (Table 42 – page 112) confirmed that the difference among these groups was not statistically significant.

Table 26

*Transfer student persistence by highest degree planned*

Student Type	Bach	Masters	PhD/EdD	Med	Law	Other	Total
Persister	92.5%	95.1%	96.7%	93.9%	100%	66.7%	94.5%
Non-Persister	7.5%	4.9%	3.3%	6.1%	0%	33.3%	5.5%

*Highest Degree at Current Institution*

As Table 27 shows there were some differences between persisters and non-persisters based upon the highest degree they intended to pursue at their present institution. A Chi square analysis (Table 42 – page 112) found that the difference was statistically significant. While 5.2% of all of the students who responded did not persist, those who indicated their intention to earn a Bachelor's degree or a Master's degree at their present institution failed to persist at the rate of 3.2% and 3.3% respectively. Among all of the groups, students who intended to pursue a professional/law degree at their current institution persisted at the highest rate – 100%.

*Father's Education*

As indicated in Table 28, there was a sizeable difference in persistence rates based on the education level of students' fathers. All of the transfer students, whose fathers did not graduate from high school, persisted at the same institution in the spring semester. The highest level of non-persistence was found among students whose fathers had a Bachelor's degree, with 9.7% of those students not returning. However, a Chi square

analysis (Table 42 – page 112) confirmed that these differences were not statistically significant.

Table 27

*Transfer student persistence by highest degree planned at current institution*

Student Type	Bach	Masters	Doctorate	Prof	Other	Total
Persister	96.8%	96.7%	94.1%	100%	41.7%	94.8%
Non-Persister	3.2%	3.3%	5.9%	0%	58.3%	5.2%

Table 28

*Transfer student persistence by father's education*

Student Type	Elem School	Some HS	HS Grad	Some College	College Grad	Grad Degree	Total
Persister	100%	100%	96.6%	96.4%	90.3%	94.4%	94.5%
Non-Persister	0%	0%	3.4%	3.6%	9.7%	5.6%	5.5%

*Mother's Education*

Table 29 presents the effects of the mother's education level upon the persistence of the students in the study. As there was with the father's education level, there was also a distinct but different impact of the mother's education level. Students whose mothers only attended elementary school had a non-persistence rate of 14.3%, while those whose mothers attended or completed high school persisted at a rate of 100% and 97.4% respectively – the highest rates among study participants. However, a Chi square

analysis (Table 42 – page 112) confirmed that these differences were also not statistically significant.

Table 29

*Transfer Student Persistence by mother's education*

Student Type	Elem School	Some HS	HS Grad	Some College	College Grad	Grad Degree	Total
Persister	85.7%	100%	97.4%	93.8%	93.9%	92.5%	94.5%
Non-Persister	14.3%	0%	2.6%	6.2%	6.1%	7.5%	5.5%

*Family Income*

As Table 30 shows, the parental income of persisters is spread among the six answer ranges. A Chi square analysis (Table 42 – page 112) confirmed that the difference was not statistically significant. However, the table does indicate that the highest levels of non-persistence were found in the highest and lowest income ranges with 13.4% of students with a family income greater than \$100,000 not returning and 10.5% of those with a family income less than \$20,000. Students with family income in the \$20,000-\$40,000 range and in the \$40,000-\$60,000 range persisted at the highest rate among the students participating in the study, with 98.2% and 98.6% respectively.

Table 30

*Transfer student persistence by family income*

Student Type	<20k	20-40k	40-60k	60-80k	80-100k	>100k	Total
Persister	89.5%	98.2%	98.6%	93.4%	95.9%	86.6%	94.1%
Non-Persister	10.5%	1.8%	1.4%	6.6%	4.1%	13.4%	5.9%

### *Institution Choice by Rank*

Table 31 indicates that the highest rate of persistence was found among the students who indicated that their current institution had been their top ranked school before they enrolled there. Students who found themselves enrolled at their third ranked school were the least likely to persist, with a non-persistence rate of 10.7%. However, a Chi square analysis (Table 42 – page 112) confirmed that the difference between these groups was not statistically significant.

Table 31

#### *Transfer student persistence by rank of current institution*

Student Type	#1	#2	#3	< #3	Total
Persister	96%	93.1%	89.3%	92.9%	94.5%
Non-Persister	4%	6.9%	10.7%	7.1%	5.5%

### *New Student Orientation*

As Table 32 indicates, the percentage of students not persisting was more than twice as large among those students who chose not to attend new student orientation than among those who did attend a summer orientation program. While 96.8% of the students who attended an orientation program persisted, only 92.6% of those who did not attend orientation persisted. However, a Chi square analysis (Table 42 – page 112) confirmed that the difference was not statistically significant.

Table 32

*Transfer student persistence by new student orientation attendance*

Student Type	Attended	Didn't Attend	Total
Persister	96.8%	92.6%	94.5%
Non-Persister	3.2%	7.4%	5.5%

*High School Grades*

The student's self-reported average high school grades are presented in Table 33, based on the student's persistence to the spring semester. While there were very small groups of students who reported C and D grades, all of those students persisted. Among those students with an A, 94.5% persisted and 93.9% of those with an average grade of B in their high school courses returned for their second semester. A Chi square analysis determined that the differences between persisters and non-persisters were not significant (Table 42 – page 112).

Table 33

*Transfer student persistence by high school grades*

Student Type	A	B	C	D	Total
Persister	94.5%	93.9%	100%	100%	94.5%
Non-Persister	5.5%	6.1%	0%	0%	5.5%

### *Transfer Grade Point Average*

Table 34 reflects the finding that students who entered the university with grade point averages below a 2.0 did not return to the university for the spring semester.

Interestingly, all of the students whose transfer grade point average was between a 2.0 and 2.99 did return to their new institution. The other finding of note was the 8.6% rate of non-persistence among students who transferred with a grade point average of 3.0-3.49. A Chi square analysis determined that the differences between persisters and non-persisters were not significant (Table 42 – page 112).

Table 34

#### *Transfer student persistence by transfer grade point average*

Student Type	<2.0	2.0-2.49	2.5-2.99	3.0-3.49	3.5-4.0	Total
Persister	0%	100%	100%	91.4%	95%	94.2%
Non-Persister	100%	0%	0%	8.6%	5%	5.8%

### *Previous Institution Type*

As Table 35 indicates, there is little difference in the rates of persistence based upon the type of school from which a student transferred. The overall persistence rate for students who answered this question was 5.7%. Students who transferred from a private university actually had the highest level of non-persistence at 5.9%. Transfer students from public, four-year universities actually had the lowest rate of non-persistence among the groups, which was 5.4%. A Chi square analysis determined that the differences between persisters and non-persisters were not significant (Table 42 – page 112).



Table 35

*Transfer student persistence by previous institution type*

Student Type	Comm College	Public 4 year	Private	Total
Persister	94.2%	94.6%	94.1%	94.3%
Non-Persister	5.8%	5.4%	5.9%	5.7%

*Number of Semesters at Previous Institution*

Table 36 shows that the overall population of study participants returned at a rate of 94.4%. Students who had attended their previous institution for two or more semesters showed a persistence rate which approached the overall level, students with two semesters of previous college work persisted at 95.9%, and those with three semesters persisted at a 100% rate. However, students who were only at the previous institution for one semester only persisted at a rate of 80%. A Chi square analysis determined that the differences between persisters and non-persisters were not significant (Table 42 – page 112).

Table 36

*Transfer Student persistence by semesters at previous institution*

Student Type	1	2	3	4	5 or more	Total
Persister	80%	95.9%	100%	94%	92.9%	94.4%
Non-Persister	20%	4.1%	0%	6%	7.1%	5.6%

### *Number of Hours Transferred*

As Table 37 shows, there was a similar division based on the number of hours, but not as obvious as that with the number of semesters at the previous institution. While the average for the survey participants was 5.7%, those with 45-59 hours were the least likely to persist – with a non-persistence rate of 9.7% -- and those with 30-44 hours were the most likely to persist, at a rate of 96.7%. A Chi square analysis determined that the differences between persisters and non-persisters were not significant (Table 42 – page 112).

Table 37

#### *Transfer student persistence by hours transferred*

Student Type	< 15 hrs	15-29 hrs	30-44 hrs	45-59 hrs	60 or more hrs	Total
Persister	91.7%	94.7%	96.7%	90.3%	95.1%	94.3%
Non-Persister	8.3%	5.3%	3.3%	9.7%	4.9%	5.7%

### *Weekly Work Hours*

Table 38 shows that while 5.5% of the total respondents did not persist, among those students who worked 16-20 hours a week, 10.8% did not return for the spring semester at the same institution. Students who worked 21 or more hours a week actually persisted at a slightly higher rate than the overall population – 95.5% versus 94.5%. However, a Chi square analysis (Table 42 – page 112) confirmed that the difference was not statistically significant.

Table 38

*Transfer student persistence by weekly work hours*

Student Type	0 hours	1-10 hours	11-15 hours	16-20 hours	21-30 hours	>30 hours	Total
Persister	94.9%	93.8%	97.1%	89.2%	95.5%	95.5%	94.5%
Non-Persister	5.1%	6.2%	2.9%	10.8%	4.5%	4.5%	5.5%

*Housing While in School*

As Table 39 indicates, the highest rate of persistence (96.9%) was among students who lived off-campus at their current institution. Students who lived in a residence hall and students who lived with family persisted at 91%, while students who lived in university-owned housing other than a residence hall persisted at a 93.2% rate. However, a Chi square analysis (Table 42 – page 112) confirmed that the difference was not statistically significant.

Table 39

*Transfer student persistence by location of housing*

Student Type	Res Hall	Other Univ Housing	Off-Campus	Family	Total
Persister	91%	93.2%	96.9%	91.1%	94.5%
Non-Persister	9%	6.8%	3.1%	8.9%	5.5%

### *Reasons for Selection*

Participants in the study were asked to select all of the applicable reasons for selecting their current institution from the six available reasons: friends here, academic reputation, geographic location, athletic opportunity, spiritual environment, and financial aid. Table 40 reflects the selections of each response made by students who persisted, students who did not persist, and then all of the students who responded to the question. Overwhelmingly, the academic reputation of the institution was a reason for selection for 67.8% of the students, including 68.1% of the persisters and 63.2% of the non-persisters. Spiritual environment and geographic location were also selected by a sizeable group of the transfer students.

Table 40

#### *Transfer student persistence by reasons for selection*

Student Type	Friends Here	Academic Reputation	Geographic Location	Athletic Opportunity	Spiritual Environment	Financial Aid
Persister	28.0%	68.1%	40.7%	9.9%	44.3%	21.4%
Non-Persister	31.6%	63.2%	36.8%	10.5%	47.4%	31.6%
Total	28.2%	67.8%	40.5%	10.0%	44.4%	21.9%

Students were also asked to select the most significant reason for their selection of their current institution from the same list of possible answers seen in Table 40. Table 41 reflects the persistence rates among this population of transfer students based upon the most significant reason for their selection of their current institution. Students who indicated that they selected their current institution based on athletic opportunity were the

most likely to persist (at 96%) and academic reputation (at 95.7%) was the second most influential reason. Students who indicated that financial aid was their most significant reason for selecting their current institution were those least likely to persist, with 8.7% of those transfer students not persisting. However, a Chi square analysis determined that the differences between persisters and non-persisters were not significant (Table 42 – page 112).

Table 41

*Transfer student persistence by most significant selection reason*

Student Type	Friends	Acad.	Geog.	Ath.	Spir.	Fin.	Total
		Rep.	Loc.	Opp.	Env.	Aid	
Persister	95%	95.7%	92.7%	96%	94.9%	91.3%	94.8%
Non-Persister	5%	4.3%	7.3%	4%	5.1%	8.7%	5.2%

*Summary of Statistical Analysis of Pre-enrollment characteristics*

Each of the previously discussed pre-enrollment variables was tested for statistical significance. A Chi square test of significance was conducted on the nominal and ordinal variables and the results are found in Table 42. The first column of the table indicates each variable which was evaluated for its impact on student persistence. The second column indicates the chi square score produced for that variable and the third column reflects the degrees of freedom for that variable. The final column, Sig., presents the significance score for that variable which refers to the likelihood that this impact could have happened by chance. As the table indicates, the only variable which was found to

be statistically significant, at the  $p < .05$  level, was the Highest Degree Planned at Current Institution ( $p = .00$ ). This variable was included as a covariate in subsequent analysis for research questions two through five.

Table 42

*Summary of Chi square results*

Variable	Chi Square	df	Sig.
Gender	1.68	1	.20
Ethnicity	.32	1	.57
Religious Affiliation	.01	1	.93
Highest Degree Planned	.02	1	.88
Highest Degree Planned at Current Institution	29.33	1	.00
Father's Education	.25	1	.62
Mother's Education	.34	1	.56
Family Income	1.10	1	.29
Institution Choice by Rank	.20	1	.66
New Student Orientation	1.95	1	.16
High School Grades	.04	1	.85
Transfer Grade Point Average	.15	1	.70
Type of Institution Transferring From	.15	1	.70
Number of Semesters at Previous Institution	.04	1	.84
Number of Hours Transferred	.14	1	.84
Weekly Work Hours	1.75	1	.19
Housing	.80	1	.37
Reason for Attendance	.14	1	.79

A t-test was conducted on the two scale-based variables – ACT and SAT scores. As indicated in Table 43, there was no statistically significant difference, at the  $p < .05$  level, in the ACT and SAT scores of persisters and non-persisters. In addition, the sizable number of missing cases of these variables also excluded them from further analysis.

Table 43

*Summary of t-test results for SAT and ACT*

Variable	T	df	Sig.
SAT	1.16	160	.25
ACT	-.37	124	.71

*Another look at the community college transfers*

In the development of this study, the most significant group of transfer students was expected to be from community colleges; therefore, each of the previously discussed pre-enrollment variables was also tested for statistical significance specifically among students who transferred from a community college. A Chi square test of significance was conducted on the nominal and ordinal variables. However, the only additional variable which was found to be statistically significant for this population of students was the Number of Semesters at the Previous Institution ( $p = .05$ ). Therefore, all of the analysis for research questions two through five were rerun for only this population and this variable and the other significant pre-enrollment characteristic (Highest Degree Planned at Current Institution) were controlled for in that analysis. However, the number

of semesters at a student's previous institution did not prove to be a significant factor in predicting student retention for this population, and it was not included in the answers to research questions two through six.

### *Research Question Two*

The second research question considered in this study was: After controlling for statistically significant pre-enrollment variables, was *academic integration* a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?

When the Academic Integration construct (which included the academic and intellectual development variable, the faculty concern for student development and teaching variable, and the student's fall semester GPA) and the significant pre-enrollment variable (Highest Degree Planned at Current Institution) were loaded into the logistic regression equation, only one variable proved to be significant (Table 44). That significant variable was the pre-enrollment variable - Highest Degree Planned at Current Institution ( $p=.00$ ).

In examining the information in Table 44, the first data column is labeled B and it indicates the effect of the predictor variable. In this case, its negative value (-.91) reflects a decrease in the odds of a student persisting at the school. The S.E. column indicates the standard error of measure and the dispersion of B. The Wald column is a measure of the significance of B for the predictor variable and the df column indicates the degrees of freedom. The Exp (B) column records the odds ratio which provides an estimate of the change in the odds of membership in the persister group with each one-unit increase in the predictor variable.



Table 44

*Academic Integration regression results*

Variable	B	S.E.	Wald	df	Sig.	Exp (B)
Academic and Intellectual Development	-.05	.06	.70	1	.40	.95
Faculty Concern for Student Development and Teaching	-.05	.08	.40	1	.53	.95
Student's Fall Semester GPA	.19	.31	.39	1	.53	1.21
Highest Degree Planned at Current Institution	-.91	.18	26.26	1	.00	.40

Table 45 provides further insight into the predictability of the Academic Integration concept. This table shows that the construct of Academic Integration correctly predicted persisters at a rate of 99.7%. However, the construct could only correctly predict 23.5% of the non-persisters.

Table 45

*Academic Integration classification table*

Observed	Predicted		Percentage
	Non-Persisters	Persisters	Correct
Non-Persisters	4	13	23.5
Persisters	1	320	99.7
Overall Percentage			95.9

*Research Question Three*

The third research question considered in this study was: After controlling for statistically significant pre-enrollment variables was *social integration* a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?

When the construct of Social Integration (which included the peer group interaction variable, the interactions with faculty variable, and the student's average number of hours per week involved in extra curricular activities) and the significant pre-enrollment variable (Highest Degree Planned at Current Institution) were loaded into the logistic regression equation, two of the four variables proved to be significant (Table 46). Those variables were the Highest Degree Planned at Current Institution ( $p=.00$ ) and the Peer Group Interaction variable ( $p=.00$ ).

Table 46

*Social Integration regression results*

Variable	B	S.E.	Wald	df	Sig.	Exp (B)
Peer Group Interaction	-.17	.06	8.91	1	.00	.85
Interactions with Faculty	.07	.09	.69	1	.41	1.08
Average Extra Curricular Hours	.02	.23	.01	1	.94	1.02
Highest Degree Planned at Current Institution	-.96	.19	26.03	1	.00	.38

In examining the information in Table 46, the first data column indicates the effect of the predictor variable. For both of the significant variables, it's a negative value (-.96 and -.17) which reflects a decrease in the odds of a student persisting at the school in relation to the Peer Group Interaction and the Highest Degree Planned at Current Institution.

Table 47 provides further insight into the predictability of the Social Integration concept. This table shows that the construct of Social Integration correctly predicted persisters at a rate of 99.1%. However, the construct could only correctly predict 16.7% of the non-persisters.

Table 47

*Social Integration classification table*

Observed	Predicted		Percentage
	Non-Persisters	Persisters	Correct
Non-Persisters	3	15	16.7
Persisters	3	313	99.1
Overall Percentage			94.6

*Research Question Four*

The fourth research question considered in this study was: After controlling for statistically significant pre-enrollment variables were *goal and institutional commitments* significant predictors of transfer students' first semester to second semester persistence at Christian institutions of higher education?

When the Goal and Institutional Commitment construct (which included the goal and institutional commitment variable) and the significant pre-enrollment variable (Highest Degree Planned at Current Institution) were loaded into the logistic regression equation, both the Goal and Institutional Commitment variable ( $p=.00$ ) and the Highest Degree Planned at Current Institution pre-enrollment variable ( $p=.04$ ) proved to be significant, which made the entire construct significant (Table 48).

In examining the information in Table 48, the first data column indicates the effect of the predictor variable. For both of the significant variables, it's a negative value (-.74 and -.18) which reflects a decrease in the odds of a student persisting at the school in relation to the student's Goal and Institutional Commitment and the Highest Degree Planned at Current Institution.

Table 48

*Goal and Institutional Commitment regression results*

Variable	B	S.E.	Wald	df	Sig.	Exp (B)
Goal and Institutional Commitment	-.18	.09	4.25	1	.04	.84
Highest Degree Planned at Current Institution	-.74	.180	17.12	1	.00	.48

Table 49 provides further insight into the predictability of the Goal and Institutional Commitment concept. This table shows that the construct of Goal and Institutional Commitment correctly predicted persisters at a rate of 99.7%. However, the construct could only correctly predict 27.8% of the non-persisters.

Table 49

*Goal and Institutional Commitment classification table*

Observed	Predicted		Percentage
	Non-Persisters	Persisters	Correct
Non-Persisters	5	13	27.8
Persisters	1	317	99.7
Overall Percentage			95.8

*Research Question Five*

The fifth research question considered in this study was: After controlling for statistically significant pre-enrollment variables was *spiritual integration* a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?

When the Spiritual Integration construct (which included the Spiritual Integration variable) and the significant pre-enrollment variable (Highest Degree Planned at Current Institution) were loaded into the logistic regression equation, only one variable proved to be significant (Table 50). That significant variable was the pre-enrollment variable - Highest Degree Planned at Current Institution ( $p=.00$ ).

In examining the information in Table 50, the first data column is labeled B and indicates the effect of the predictor variable. In this case, it's negative value (-.87) reflects a decrease in the odds of a student persisting at the school in relation to the Highest Degree Planned at Current Institution.

Table 50

*Spiritual Integration regression results*

Variable	B	S.E.	Wald	df	Sig.	Exp (B)
Spiritual Integration	-.04	.07	.32	1	.57	.96
Highest Degree Planned at Current Institution	-.87	.17	26.09	1	.00	.42

Table 51 provides further insight into the predictability of the Spiritual Integration concept. This table shows that the construct of Spiritual Integration correctly predicted persisters at a rate of 100%. However, the construct could only correctly predict 5.6% of the non-persisters.

Table 51

*Spiritual Integration classification table*

Observed	Predicted		Percentage Correct
	Non-Persisters	Persisters	
Non-Persisters	1	17	5.6
Persisters	0	322	100.0
Overall Percentage			95.0

### *Research Question Six*

The sixth research question considered in this study was: What demographic, previous institution and current university factors affected the transfer student's successful adjustment to Christian universities?

#### *Academic Adjustment*

Linear regression was utilized in order to answer research question six. This analysis was conducted in two separate phases looking first at Academic Adjustment and then at Social Adjustment. Both phases included the Student's Fall GPA and all twenty of the pre-enrollment variables (including gender, race, religious affiliation, family income, father's and mother's educations, ACT or SAT scores, high school GPA, the student's transfer GPA, type of institution previously attended, number of semesters at previous institution, the number of hours transferred from the previous institution, attendance at summer orientation, student's residence, average work hours each week, highest degree planned anywhere, highest degree planned at current institution, rank of current institution, reasons for selecting this institution, and the most significant reason for selecting the current institution). In evaluating the Academic Adjustment variable, after all of the demographic and institutional variables were loaded into the linear regression equation, only three of the variables proved to be significant at the  $p < .05$  level (Table 52). Those significant variables were the student's fall semester gpa, the student's most significant reason for their attendance at the current institution, and their family income level.

The linear regression analysis provided two separate sections of information (all found in Table 52). The first section (the Model Summary) contained two important

indicators. The first of these, the R column, contains the correlations between the predictor variables (the student's fall semester gpa, the student's most significant reason for their attendance at the current institution, and their family income level) and the Academic Adjustment score. The second important indicator, the R Square column, reflects the portion of the variance of the Academic Adjustment score which was accounted for by the predictors.

The first of the predictor variables, Fall GPA, had an R square value of .28 which indicated that it accounted for 28% of the variance in the Academic Adjustment score. Adding the second variable, the student's most significant reason for their attendance at the current institution, accounted for an additional 10% of the variance. The final significant variable, family income, was able to account for another 7% of the Academic Adjustment variance. Thus, these three significant variables combined to predict 45% of the variance in the Academic Adjustment score for these transfer students.

The second section (the ANOVA) presented the results of the analysis of the variance for the variables included in this analysis. In this section, the F column indicated the division of the mean square regression by the mean square residual for the model and the Sig. column showed the significance level of the variables included at that point. The Sig. column also indicated the likelihood that this result could have happened by chance. Since all three of the included variables were significant at the  $p < .05$  level (all were  $p = .00$ ), then this analysis found that the effects of these three variables were statistically significant in relationship to the Academic Adjustment score for this population of transfer students.



Table 52

*Academic Adjustment regression results*

Model	R	R Square	Adjusted R Square	S. E.
1 <sup>a</sup>	.53	.28	.26	2.68
2 <sup>b</sup>	.62	.38	.35	2.52
3 <sup>c</sup>	.67	.45	.40	2.41

a.	Variables: Fall GPA					
b.	Variables: Fall GPA, Student's most significant reason for attendance					
c.	Variables: Fall GPA, Student's most significant reason for attendance, Family Income					

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	108.39	1	108.39	15.07	.00
	Residual	280.49	39	7.19		
	Total	388.88	40			
2	Regression	146.87	2	73.43	11.53	.00
	Residual	242.01	38	6.37		
	Total	388.88	40			
3	Regression	174.36	3	58.12	10.02	.00
	Residual	214.52	37	5.80		
	Total	388.88	40			

*Social Adjustment*

In the examination of Social Adjustment, after all of the demographic and institutional factors were loaded into the linear regression equation, only three of the variables proved to be significant at the  $p < .05$  level (Table 53). Those variables were the student's fall semester gpa, the student's mother's educational level, and the student's most significant reason for attendance at the current institution.

The linear regression analysis for the Social Adjustment variable provided two separate sections of information (all found in Table 53). The first section (the Model Summary) contained two important indicators. The first of these, the R column, showed the correlation between the predictor variables (the student's fall semester gpa, the student's mother's educational level, and the student's most significant reason for attendance at the current institution) and the Social Adjustment score. The second important indicator, the R Square column, indicated the portion of the variance of the Social Adjustment score which was accounted for by the predictor variables.

The first of the predictor variables, Fall GPA, had an R square value of .28 which indicated that it accounted for 22% of the variance in the Social Adjustment score. Adding the second variable, the student's mother's educational level, accounted for an additional 12% of the variance. The final significant variable, student's most significant reason for attendance at the current institution, was able to account for another 7% of the Social Adjustment variance. Therefore, including all three of the significant variables in the model combined to predict 41% of the variance in the Social Adjustment score for these transfer students.

The second section (the ANOVA) presented the results of the analysis of the variance for the variables included in this analysis. In this section, the F column indicated the division of the mean square regression by the mean square residual for the model and the Sig. column showed the significance level of the variables included at that point. The Sig. column also indicated the likelihood that this result could have happened by chance. All of the included variables were significant at the  $p < .05$  level, so this

analysis found that the effects of these three variables were statistically significant upon the Social Adjustment score for this population of transfer students.

Table 53

*Social Adjustment regression results*

Model	R	R Square	Adjusted R Square	S. E.
1 <sup>a</sup>	.47	.22	.20	3.29
2 <sup>b</sup>	.59	.34	.31	3.06
3 <sup>c</sup>	.64	.41	.36	2.94

d. Variables: Fall GPA  
e. Variables: Fall GPA, Mothers Education level  
f. Variables: Fall GPA, Mothers Education level, Student's most significant reason for attendance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	120.91	1	120.91	11.20	.00
	Residual	421.04	39	10.80		
	Total	541.95	40			
2	Regression	185.19	2	92.60	9.59	.00
	Residual	356.76	38	9.39		
	Total	541.95	40			
3	Regression	222.29	3	74.10	8.58	.00
	Residual	319.66	37	8.64		
	Total	541.95	40			

*Summary*

This chapter has presented the results of this study of transfer student as it addressed the six original research questions. First, the demographic and pre-enrollment

characteristics of this population of transfer students were presented in answer to research question one. Next, Chi square and t-tests were run including all pre-enrollment variables. This analysis identified one significant variable, at the  $p < .05$  level, related to transfer student persistence: the student's Highest Degree Planned at Current Institution ( $p = .00$ ). This variable was included in all subsequent analysis conducted to address research questions two through five.

Logistic regression was utilized to examine research questions two through five and those analyses determined that the Academic Integration construct was not significant with regard to the effect on transfer student persistence. Only the pre-enrollment characteristic of Highest Degree Planned at Current Institution was found to be significant, as expected. When examining the impact of Social Integration on student persistence, two of the variables (the Peer Interaction variable and the pre-enrollment variable Highest Degree Planned at Current Institution) were statistically significant at the  $p < .05$  level. Both of the variables included in the logistic regression analysis of the Goal and Institutional Commitment construct were found to have a significant effect on the persistence of these transfer students. Those variables were the Goal and Institutional Commitment construct and the pre-enrollment variable Highest Degree Planned at Current Institution. The logistic regression examination of the Spiritual Integration construct found that Spiritual Integration was not statistically significant, at the  $p < .05$  level, in predicting transfer student persistence, and only the pre-enrollment characteristic of Highest Degree Planned at Current Institution was significant.

In the final section of this chapter, research question six was examined using linear regression in order to determine which of the twenty pre-enrollment variables

affected the academic and social adjustment of new transfer students. This analysis identified three significant variables, at the  $p < .05$  level, with regard to the Academic Adjustment construct: the student's fall semester grade point average, the student's most significant reason for their attendance at the current institution, and their family income level. These three significant variables combined to predict 45% of the variance in the Academic Adjustment score for these transfer students. The examination of the Social Adjustment construct also found three significant variables, again at the  $p < .05$  level, and those were: the student's fall semester grade point average, the educational level of the student's mother, and the student's most significant reason for their attendance at the current institution. These three significant variables combined to predict 41% of the variance in the Social Adjustment score for these transfer students.

This current study began with chapter one which was an introduction to the issue to be examined, then chapter two provided a review of the relevant literature in this area, and chapter three contained a detailed description of the methodology that was utilized in this study. This chapter contains a presentation of the findings of the study and answers to the six research questions which were a part of this investigation. The next chapter, chapter five, provides: (a) summary; (b) major findings and discussion; (c) recommendations; and (d) conclusions.

## CHAPTER FIVE

### Summary, Major Findings and Discussion, Recommendations, and Conclusions

This study was an examination of the experiences of new transfer students at three Christian universities. This study looked at the characteristics of those students, their transition to the new university, and those factors which affected their adjustment and persistence at the same university. This chapter will summarize the study, discuss the major findings of the study, make some recommendations for Christian universities, suggest future research, and draw some conclusions.

#### *Summary of the Study*

##### *Statement of the Problem*

For the purpose of this study, the primary research problem or question was: What variables predict transfer students' successful persistence and transition experience during their first semester at Christian universities? There were six specific questions which flowed out of this overarching research question:

1. What were the demographic characteristics of students who transfer to Christian universities?
2. After controlling for statistically significant pre-enrollment variables, was *academic integration* a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?

3. After controlling for statistically significant pre-enrollment variables was *social integration* a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?
4. After controlling for statistically significant pre-enrollment variables were *goal and institutional commitments* significant predictors of transfer students' first semester to second semester persistence at Christian institutions of higher education?
5. After controlling for statistically significant pre-enrollment variables was *spiritual integration* a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?
6. What demographic, previous institution and current university factors affected the transfer students' successful adjustment to Christian universities?

### *Review of the Methodology*

As described in Chapter 3, this study used a non-experimental, quantitative, survey research design. This type of design was chosen primarily because the majority of the research done examining Tinto's model has utilized a survey design. The cross-sectional data was collected with a single questionnaire (the Transfer Student Experiences Survey) and data from the official university records for each institution. The independent variables were not manipulated and there was no intervention provided during the study. The transfer students in the study were asked to complete and return a survey instrument (Transfer Student Experiences Survey found in Appendix A) which was mailed to them as well as being available electronically. This instrument was adapted by the researcher from one used in a previous persistence study (Morris, 2002).

The survey instrument was used to ask questions regarding the students' backgrounds, experiences at their previous institution, preparations for transfer, their adjustments to the new universities, and their experiences at the new institutions.

Three Christian universities (all located in Texas) were selected for this study and they agreed to provide the researcher with the names and contact information for all of their new transfer students that met the study's definition. In October 2005, each of those transfer students with a valid mailing address ( $n = 303$ ) was mailed a survey packet (which included Appendices A and B, along with a postage-paid return envelope). Students without a valid mailing address ( $n = 300$ ) were sent the same information regarding the study via an email message (Appendix C), which included a link to a web-based version of the survey instrument. Fourteen days and twenty-four days after the initial information was sent, non-responders were sent emailed reminders (Appendix D & E) about the study, which included links to the electronic version of the survey. A second letter (Appendix F) and a second copy of the survey were mailed to non-responders fourteen days after the second emailed reminder. Another email reminder (Appendix G) was sent fourteen days after the second set of mailed surveys. One final email reminder (Appendix H) was sent after the semester was completed, in an attempt to reach as many students as possible. The multiple methods of reminder led to an overall response rate of 58% (Table 54). Among those transfer students who elected to participate in the study, 82% of them chose to complete the survey on-line.



Table 54

*Survey Response Rates by Institution and Overall*

Surveys	Inst. A	Inst. B	Inst. C	Total
Surveys Sent	57	142	404	603
Surveys Completed	26	85	237	348
Response Rate	46%	60%	59%	58%

*Data Analysis Utilized*

Three primary methods of analysis were employed in order to answer the six research questions posed in this study. First, cross-tabulations were produced for each of the pre-enrollment variables, in order to answer the first research question. Before questions two through five could be answered, Chi square and t-tests were calculated between all twenty of the pre-enrollment variables for an examination of the individual relationships between the predictors and the outcome variable (Morris, 2002). These preliminary analyses determined if there were any covariates significantly related to the outcome variable of student persistence. Covariates which were significant at the  $p < .05$  level were then included in the logistic regression analysis to answer questions two through five. Only one significant variable was found and it was the Highest Degree Planned at Current Institution ( $p = .00$ ).

The second method of analysis, to answer research questions two through six, utilized logistic regression where the one significant covariate and all predictors were entered into the logistic regression equation. The logistic regression analysis provided a significance score and a classification table. The classification table summarized the fit

between the actual and predicted group membership in the analysis and provided information regarding the quality of the predictors to significantly classify persisters and non-persisters.

Finally, linear regression was the analysis utilized to answer research question six. This analysis was conducted in two separate phases, looking first at Academic Adjustment and then at Social Adjustment. Both phases included the Student's Fall GPA, along with all twenty of the pre-enrollment variables (including gender, race, religious affiliation, family income, father's and mother's educations, ACT or SAT scores, high school GPA, the student's transfer GPA, type of institution previously attended, number of semesters at previous institution, the number of hours transferred from the previous institution, attendance at summer orientation, student's residence, average work hours each week, highest degree planned anywhere, highest degree planned at current institution, rank of current institution, reasons for selecting this institution, and the most significant reason for selecting the current institution). The linear regression analysis produced a Model Summary table and an ANOVA table for each of the phases.

### *Major Findings and Discussion*

The primary focus of this study was on transfer student experiences and the impact of those experiences on student's persistence. Research questions two through four examined the three main constructs of Tinto's (1998) Longitudinal Model of Student Departure (Figure 5) (Academic Integration, Social Integration, and Goal and Institutional Commitments) and their impact on student persistence.

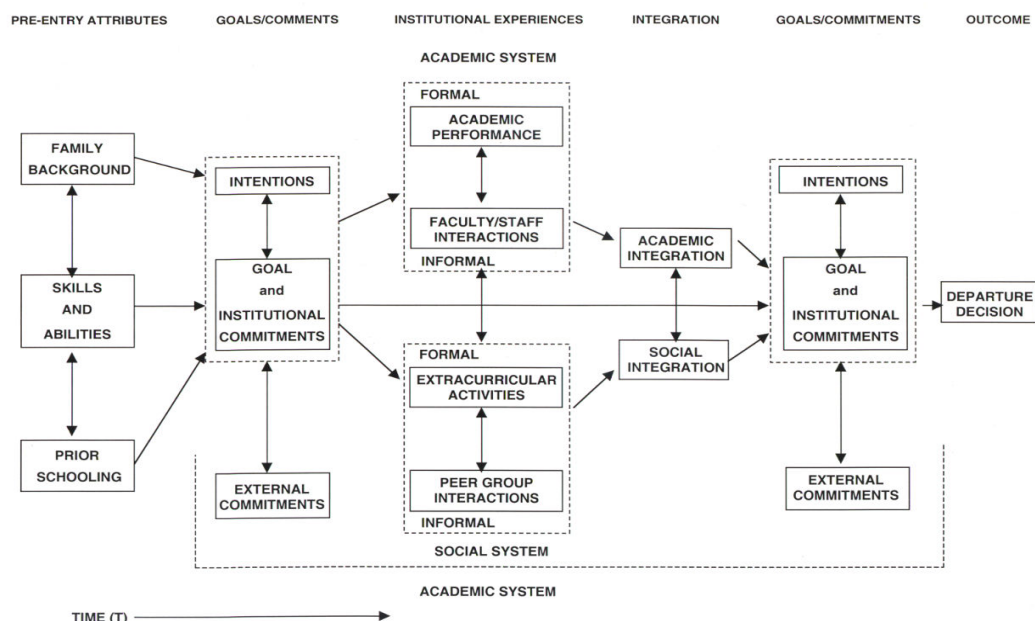


Figure 5. Longitudinal Model of Student Departure (Tinto, 1993)

The fifth research question examined the impact of Spiritual Integration on student persistence. While this construct was not a part of the Tinto model, it was rooted in that same context and drew upon the work of Morris (2003).

The sixth research question was not directly connected to the Tinto model and it did not focus on student retention. Instead, this research question was drawn from the work of Laanan (1998) regarding those factors which impact the academic and social adjustments of transfer students as they transition to the new university. This research question examined the actual adjustment experiences of this group of transfer students and those factors which affected both their academic and their social adjustment. This question was not concerned with the impact on student retention, instead it looked at those factors which impacted these transfer student's actual transition experiences rather than their effects on persistence.

*Transfer Student Demographics – Research Question One*

Before the key variables of the Tinto model were evaluated in this study, and in order to have a clearer understanding of who the transfer students were at these Christian universities, the first research question in this study asked:

1. What were the demographic characteristics of students who transfer to Christian universities?

There were twenty demographic variables considered in response to this question, all from the category of variables labeled Pre-Enrollment attributes:

- I. Pre-Enrollment Attributes – twenty variables
  - a. Family Background
    - i. Gender (Question Q. 49)
    - ii. Ethnicity (Q. 50)
    - iii. Religious affiliation (Q. 51)
    - iv. Parents combined annual income (Q. 58)
    - v. Father's formal education (Q. 56)
    - vi. Mother's formal education (Q. 57)
  - b. Skills and abilities
    - i. Student's composite score on the ACT (American College Test) (Q. 53) or the SAT (Scholastic Aptitude Test) (Q. 52)
    - ii. Student's self-reported average grade in High School (Q. 62)
  - c. Prior schooling
    - i. Student's grade point average from previous institution (Q. 63)
    - ii. Type of institution previously attended (Q. 64)

- iii. Number of semesters at the previous institution (Q. 65)
  - iv. Number of hours transferred from the previous institution (Q. 66)
- d. Current School
  - i. Attendance at a summer orientation session for new students to the university (Q. 61)
  - ii. Where the student resides during the semester (Q. 68)
  - iii. How many hours the student works during a week while they are in school (Q. 67)
- e. Initial Goals/Commitments – five variables
  - i. The student's highest degree planned anywhere (Q. 54)
  - ii. The student's highest expected academic degree at that particular institution (Q. 55)
  - iii. The student's pre-enrollment ranking of this college choice (Q. 59)
  - iv. The student's indicated reasons for transfer to this university (Q. 69)
  - v. The student's indicated most significant reason for transfer to this university (Q. 70)

Overall, the responses to these questions reflected a diverse and varied set of backgrounds among the transfer students at the three Christian universities studied. They were from a wide spectrum of family income (Table 9), parental education level (Tables 7 & 8), religious background (Table 4), type of previous institution attended (Table 14), and academic degree goals (Table 5).

Despite the perception that transfer students are a very different population on the four-year institution's campus, this study found that some of the key demographic factors often reported regarding the national college student population were not dramatically different for the transfer students found in this study. For example, there were more female students than male (Table 2) who participated in this study (59% to 41%), which reflected the trend in the overall undergraduate population which is 57% female (Chronicle, 2005). Also, in this study, seventy-three percent of the participants were white and twenty-seven percent were non-white (Table 3), which represents a non-white participation rate that is slightly higher than the national average among four-year universities, which is twenty percent non-white (Chronicle, 2005). These two statistics indicate, at least in these areas, that these three Christian universities are at least as diverse as the overall national college student population. This could be a reflection of specific efforts to enhance the diversity of these campuses or it might simply reflect the demographics of the areas from which these schools draw most of their students.

Another characteristic of the transfer students in this study is the significant number of them who indicated the intention to pursue a graduate degree. As the data in Table 5 reflected, more than fifty-eight percent of the students in each of the three universities indicated that they planned to obtain at least a Master's degree. Since the three institutions are at very different degree-granting levels, it is surprising that there is a similar percentage of students planning to pursue a Masters degree or higher at all three institutions. It would have been more expected that Institution C would have a much larger portion, since it is a doctoral degree-granting university.

In light of the significant number of these transfer students indicating their desire for a graduate degree, one might expect a sizeable portion of these students would be planning a graduate degree at their current institution. However, as the data in Table 6 indicated, seventy-two percent of these transfer students were only looking for a bachelor's degree at their current institution. There are many possible reasons for this situation, including too much debt from an undergraduate degree at a private university, the absence of their desired graduate degree at their current institution, or simply their demonstrated willingness, as transfer students already, to go to another institution.

While they come from a wide cross-section of family educational backgrounds, another surprising characteristic of this group of transfer students was the sizeable majority, more than seventy-four percent, of these students' mothers and fathers who had attended at least some college, as shown in Tables 7 and 8. As a result of their own college experiences, these parents would be likely to see the value of higher education and provide support for their transfer students.

Often private universities have been criticized for not providing access to a broader socio-economic group of undergraduate students, and for being a place that only students from rich families could attend (Pope, 2006; Wyner, 2006). However, the information from the transfer students in this study revealed that family income (Table 9) varied widely among the respondents, which might indicate that these Christian universities are providing increasing opportunities to a wider cross-section of families, not just the wealthiest.

When the researcher developed this study, it was with an expectation that a very sizeable portion of the transfer students included in it would have previously attended one

or more community colleges before transferring to a Christian university. Therefore, it was a surprising characteristic that the percentage of transfer students who participated in this study, who had transferred from a community college, varied so much between the three universities (Table 14). The three institutions participating in the study did not provide the author with any specific information regarding the overall distribution of their incoming transfer students and their previous institution prior to the study. However, the university administrators had indicated that a large number of their transfer students were coming to them from community colleges. As Table 55 summarizes, the portion of transfer students from community colleges ranged from thirty-six to sixty-two percent. While this range was somewhat surprising, it allows for a broader understanding of who is transferring to these Christian universities and what their experiences were like. And while somewhat less than anticipated, fifty-seven percent is still a significant portion of the overall transfer student population.

Table 55

## Summary of Transfer Students Previous Institution by Current Institution

	Overall	Inst. A	Inst. B	Inst. C
Community College	57%	36%	49%	62%
Other Institution	43%	64%	51%	38%

The majority of the transfer students who participated in this study followed typical enrollment patterns. On average, sixty-five percent of these students (Table 15) indicated that they had transferred from an institution where they had spent either two



semesters (36%) or four semesters (29%). This indicates a “normal” enrollment pattern where students beginning their college work in the fall semester following their graduation from high school. This indicates some key points in time when the Christian university could make special efforts to reach out to potential transfer students and begin the process of integrating them into the university.

In contrast, this meant that 35% of these transfer students were coming at some “non-normal” time. It is important to see how many of these transfer students spent five or more semesters at their previous institutions, since their transition to the new university may have been very different from those students who had only spent two or even four semesters at their previous institutions. Among the student who participated in this study, on average, twenty-five percent had been at their previous institution for five or more semesters (Table 15).

In examining the transfer student’s stated reasons for transferring to their current university, the spiritual environment was a strong attractor for many of these students. On the average, forty-four percent of the transfer students indicated that one of the reasons they selected the university they transferred to was because of the spiritual environment, with responses among the three universities ranging from thirty-eight to sixty-five percent (Table 19). However, when these students were asked to indicate the most important reason for their selection of this university, only seventeen percent of the respondents, on the average, indicated the spiritual environment of the institution, with a range from eight to forty percent (Table 20).

In contrast, on the average, forty-one percent of these transfer students selected the academic reputation of their current institution as the most significant reason for

selecting it when deciding to transfer (Table 20). While the spiritual environment at these Christian universities was a strong attractor, it appeared that their academic reputation, at least at two of the universities, was an even more significant factor in actually getting the students to enroll at those universities.

These transfer students defy the tendency to be labeled only as a group. As shown above, the responses to these questions were tremendously diverse among these students. In some areas, there was often one institution which was very different from the others in its position and practices and that institution might need to pay attention to those areas. For example, in looking at Table 3, regarding ethnicity – the percentages of non-white, transfer students at Institution B (15.7%) was below the national, undergraduate average of 20% (Chronicle, 2005) and behind Institution A (23.1%) and C's (31.5%) figures. However, diversity on a campus is reflected in more than just ethnic diversity, it can also be religious diversity. Table 4 shows that Institutions B and C may have had a more religiously diverse group of transfers than Institution A, where 76% of the transfer students came from the same religious group. An additional finding of significant differences between the three university transfer groups was in the area of work hours (Table 17). Institution A had many more transfer students who were working (69.2% versus 49.4% and 46.4%) and many of whom were working more than 20 hours each week (34.6%). This situation could create very different challenges and needs for this institution. While none of these points of difference may be reflective of the overall student body at these schools, they were indeed reflective of the transfers who participated, and might need to be addressed on these campuses.

This section has been a discussion of the major findings of research question one regarding the demographic characteristics of these transfer students. This has presented a picture of the varied backgrounds and experiences of the students who chose to transfer to these three Christian universities. The next section will examine the academic integration of these students and its effect on persistence.

### *Academic Integration – Research Question Two*

One of the key constructs of the Tinto model (Figure 5) is academic integration and the second research question in this study asked:

2. After controlling for statistically significant pre-enrollment variables, was *academic integration* a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?

In order to determine if any of the pre-enrollment characteristics of these transfer students had a significant impact on persistence and should be controlled for in the consideration of research questions two through five, Chi square (Table 42) and t-tests (Table 43) that included all pre-enrollment variables were run. This analysis identified only one significant variable at the  $p < .05$  level: the student's Highest Degree Planned at Current Institution ( $p = .00$ ). Therefore, this variable was included in all subsequent analysis conducted to address research questions two through five regarding transfer student persistence, and it was found to be significant in each of those analyses.

In response to question two, the logistic regression analysis (Table 44) determined that the Academic Integration construct (which included the Academic and Intellectual Development variable and the Faculty Concern for Student Development and Teaching

variable) was not a significant predictor of persistence with this population. Only the pre-enrollment characteristic of Highest Degree Planned at Current Institution ( $p=.00$ ) was found to be significant at the  $p<.05$  level.

It was somewhat surprising that the Academic Integration component of Tinto's model was not affirmed, since its impact on student persistence has been seen in a number of previous studies (Liu & Liu, 2000; Pascarella & Terenzi, 1983, 2005; Thomas, 2000; Walter, 2000). However, Tinto (1997, 2000) and others (Elkins, Braxton and James, 2000; Woosley, 2003) have observed previously that initially social integration is more important than academic integration in the student's experiences at the new institution, and the results of this study seem to reflect that as well.

Braxton, Hirschy & McClendon (2004) found that in residential universities, like the three in this study, social integration plays the predominant role in predicting student persistence instead of academic integration. In addition, Braxton, Sullivan & Johnson (1997) cite several studies that affirm the effect of social integration on persistence and on its ability to compensate for low academic integration.

These students may also not have been in the Christian university environment long enough to experience the unique differences there and the emphasis on faith and learning in these institutions, which might have resulted in the lack of impact of the Academic Integration variable. In their responses, these first semester transfer students may have been reflecting their first concern which was connecting to the campus. Given this fact, the selection of a transfer student population that had been at the three universities longer might have provided a very different view of the impact of academic integration on transfer student departure decisions.

### *Social Integration – Research Question Three*

The second major variable in the Tinto model (Figure 5) was social integration, which led to the third research question:

After controlling for statistically significant pre-enrollment variables was *social integration* a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?

The logistic regression analysis (Table 46) found that two of the variables included in the analysis (the Student Interaction with Peers variable ( $p=.00$ ) and the pre-enrollment variable Highest Degree Planned at Current Institution ( $p=.00$ )) were significant at the  $p<.05$  level when examining the impact of the Social Integration construct on transfer student persistence with respect to the third research question. This indicated that social integration was a significant predictor of transfer student persistence at these Christian universities. The Interactions with Faculty variable and the Average Extra Curricular Hours variable were not found to be significant predictors of persistence with this population of transfer students. When utilizing the Social Integration construct (Table 47), the logistic regression equation correctly classified 94.6% of these transfer students (99.1% of the persisters, but a disappointing 16.7% of the non-persisters).

One mistake made by the researcher in the preparation of the survey instrument for this study was made in the fifty-ninth question which asked, "In the past academic year, approximately how many hours per week, on the average, did you spend in organized extra-curricular activities?" This question was to look at the transfer student's campus involvement and gauge their extra-curricular activities, but it was poorly worded for this study since these students were in their first semester at the Christian university.

Therefore, the question should have been phrased to refer to the current semester, instead of the year, in order to gauge their involvement at the current institution. This could have resulted in the Average Extra Curricular Hours variable not being found significant in the logistic regression analysis.

Regardless of the effect of that mistake, the results of this study indicated an affirmation of the role of the Student Interaction with Peers variable in the prediction of transfer student persistence and its application to a population of transfer students at Christian universities. Similar support was also found in a large number of other studies (Tinto, 1997, 2000; Elkins, Braxton and James, 2000; Woosley, 2003).

Braxton, Sullivan & Johnson (1997) cited a number of studies that affirmed the role of social integration in predicting student persistence, especially in residential universities like those in this study. This conclusion was also seen in a study by Braxton, Hirschy & McClendon (2004). Berger & Melaney (2002) found that strong social integration led to persistence, specifically with a transfer student population.

Morris' study (2003) also supported the importance of Social Integration in predicting the persistence of students in a Christian university. In his study, Morris also cited two other studies of Christian college students that affirmed the impact of social integration on persistence (Walter 2000; Cash & Bissel, 1985). One of these, Walter (2000), examined persistence at CCCU institutions (55 participating universities) and found social integration to be the most important variable. This finding was reiterated by Schreiner (2000).

*Goal and Institutional Commitment – Research Question Four*

The third and final significant construct in the Tinto model (Figure 5) was that of the Goal and Institutional Commitment of the student, which was reflected in research question four:

After controlling for statistically significant pre-enrollment variables were *goal and institutional commitments* significant predictors of transfer students' first semester to second semester persistence at Christian institutions of higher education?

In the logistical regression analysis (Table 48), both the Goal and Institutional Commitment variable ( $p=.04$ ) and the pre-enrollment variable Highest Degree Planned at Current Institution ( $p=.00$ ) were found to have significant effects on persistence at the  $p<.05$  level. This result indicated that, in addition to the Student Interaction with Peers variable, the other aspect of the Tinto model which was found to be significant among the transfer students in this study was the student's Goal and Institutional Commitment. When utilizing the Goal and Institutional Commitment construct (Table 49), the logistic regression equation correctly classified 95.8% of these transfer students (99.7% of the persisters, but a disappointing 27.8% of the non-persisters).

The significance of this variable may be a reflection of the transfer student's expectation that their new institution will reconfirm their own educational goals and the selection of this new school, as well as showing that the new school is an important resource to reach those goals. Regardless of the reason, this variable was found to have a distinct impact on this population of transfer students at these three Christian universities

and their decision regarding whether to remain at their current institution or transfer again.

This conclusion was also found in a number of other studies. Terenzini, Lorang & Pascarella (1981) found that Goal and Institutional Commitment made the largest impact on student persistence. Braxton, Sullivan & Johnson (1997) cite several studies which provide strong affirmation of the impact of Goal & Institutional Commitment on student persistence, especially in residential universities like those in this study.

Morris (2003) also found support for Goal and Institutional Commitment being a significant predictor of the persistence of students at a Christian university. In a study looking at Christian universities, Brandt (1991) also found that Goal and Institutional Commitment was the most significant of the Tinto model variables in predicting student persistence.

#### *Spiritual Integration – Research Question Five*

While not a component in Tinto's model, several studies (Morris, 2003; Schreiner, 2000; Walter, 2000) have indicated the appropriateness of an examination of spiritual integration's impact on retention in Christian universities, thus research question five asked:

After controlling for statistically significant pre-enrollment variables was *spiritual integration* a significant predictor of transfer students' first semester to second semester persistence at Christian institutions of higher education?

Surprisingly, the logistic regression analysis (Table 50) of Spiritual Integration, in research question five, found that Spiritual Integration variable was not a significant predictor of persistence with this population. Instead, only the pre-enrollment



characteristic of Highest Degree Planned at Current Institution ( $p=.00$ ) was again significant at the  $p<.05$  level.

In the development of this study, the researcher expected the affirmation of Morris' (2003) contention that Spiritual Integration would be a significant predictor of persistence at these Christian universities. Therefore, the most surprising finding of this study, for the researcher, was the lack of significance in prediction of transfer student persistence for the Spiritual Integration variable.

This finding, the lack of predictive power of the Spiritual Integration variable, also runs counter to the findings of Walter (2000), who found Spiritual Integration to be correlated with persistence at Christian Universities. Schreiner (2000) also indicated that a lack of spiritual fit was one of the best predictors of student attrition among students at Christian universities.

While this study did not affirm the validity of this variable's impact on student retention, it still seems to be a valuable framework through which to understand the experiences of students at the Christian university. Additional research should be conducted to evaluate the impact of this variable on student persistence. The transfer students in this study may not have reflected the importance of Spiritual Integration in their survey responses since so many of them transferred from public institutions. The overall change in the campus environment at the Christian university might have been such an overwhelming change from their previous institution that they were not yet able to differentiate the impact of this specific component of the new university from all of their other experiences with the faculty and their new peers.

These students also might not have been in the Christian university environment long enough to experience the unique differences and the emphasis on faith and learning which might also have resulted in the lack of impact of the Spiritual Integration variable. The responses of these first semester transfer students may have been reflecting more their first concerns which were establishing friendships and connecting to the campus. The selection of a transfer student population that had been at the university longer might have provided a very different view of the impact of spiritual integration on transfer student departure decisions.

*Academic and Social Adjustment – Research Question Six*

The final research question examined in this study did not come from the influence and impact of the Tinto model and it was not concerned with student persistence. Instead this research question attempted to build upon the work of Laanan (1998) regarding those factors which impact the academic and social adjustments of transfer students as they transition to the new university. Here the researcher attempted to look beyond the outcomes of these transfer students' first semester and to, instead, study those variables which influenced the academic and social adjustment of these students during their first semester at these three universities. Research question six asked:

What demographic, previous institution and current university factors affected the transfer students' successful adjustment to Christian universities?

This research question was examined through the use of linear regression in order to determine which demographic and institutional characteristics affected the academic and social adjustment of new transfer students. The variables included in the analysis

were the Student's Fall GPA and all twenty of the pre-enrollment variables (including gender, race, religious affiliation, family income, father's and mother's educations, ACT or SAT scores, high school GPA, the student's transfer GPA, type of institution previously attended, number of semesters at previous institution, the number of hours transferred from the previous institution, attendance at summer orientation, student's residence, average work hours each week, highest degree planned anywhere, highest degree planned at current institution, rank of current institution, reasons for selecting this institution, and the most significant reason for selecting the current institution).

*Academic Adjustment.* This analysis identified three significant variables, at the  $p < .05$  level, with regard to the Academic Adjustment (Table 52) variable: the student's fall grade point average, their most significant reason for selecting this institution, and their family income level, all of which were significant at  $p = .00$ , according to the ANOVA results.

The first of these variables, the student's academic performance in their first semester (as gauged by their fall grade point average), had an R square value of .28 which indicated that it accounted for 28% of the variance in the Academic Adjustment score. This variable would logically have a significant impact on the student's evaluation of the success of their academic adjustment to the new institution. If they struggled to be successful in their classes, as evidenced by a lower grade point average, then their academic adjustment would not have been as successful. This finding supports Laanan's (1998) conclusion that students who were not doing well academically, as measured by their grade point average, would have difficulty adjusting academically.

The second factor influencing transfer student's academic adjustment to their new institution was what they indicated was the most significant reason for selecting this institution. Adding this second variable, accounted for an additional 10% of the variance. The selection of the most significant reason for selecting this institution was a reflection of the student's personal motivation for pursuing a college degree and for doing so at the chosen institution. This motivation could also have affected their personal motivation and effort at the new institution. In turn, this would have impacted their evaluation of the success of their academic adjustment. Gerdes and Mallinckrodt (1994) found that the student's reasons for selecting an institution affected their academic performance and adjustment.

The final influencing factor on their academic adjustment was their family income level, and this variable, was able to account for another 7% of the Academic Adjustment variance. This could have influenced the resources they had access to and the academic preparation from which they were able to draw which could have then impacted their academic adjustment. The impact of family income has previously been supported by a number of studies, including Pascarella & Terenzini (1991) and Hertel (2002).

These three significant variables combined to predict 45% of the variance in the Academic Adjustment score for these transfer students. This was a significant portion of the variance and should be considered by Christian universities. Further research should examine those variables which might account for the remaining 55% of the variance.

*Social Adjustment.* In a similar way, the linear regression analysis identified three significant variables with regard to the social adjustment (Table 53) of these transfer students: the student's fall grade point average, the highest educational level attained by

the student's mother, and the student's most significant reason for selecting this institution, all of which were significant at  $p=.00$ , according to the ANOVA results.

It was very interesting that the first of the significant variables regarding social adjustment was also the student's academic performance in their first semester (as gauged by their fall grade point average), as it was with the student's academic adjustment. The Fall GPA variable had an R square value of .28, which indicated that it accounted for 28% of the variance in the Social Adjustment score. This may have impacted the social adjustment variable because better grades during the semester may have given students extra time to focus on their social adjustments both inside and outside the classroom. Laanan (1998) concluded that students who were not doing well academically, as measured by their GPA, might have had to spend extra time on their academic adjustment, keeping them from making effective socially adjustments at their new institution.

The second variable which affected the transfer student's social adjustment was the highest educational level attained by the student's mother, which accounted for an additional 12% of the variance. This was a puzzling result because it singled out the mother's educational attainment. Allen (1999) found support for the impact of the parent's education on the adjustment of college students, but he did not look at each parent's education separately, only jointly. The significance of this variable may indicate a level of support from the student's family based on prior experience. This is an area which certainly needs further examination in future research.

The third and final significant variable found to affect the student's social adjustment was, again, their most significant reason for selecting this institution. When

this variable was added, it was able to account for another 7% of the Social Adjustment variance. In this case, the student's basis for their selection of their most significant reason for selecting this institution would be likely to strongly shape their expectations for the social environment. Since these students had chosen a Christian university, they may have held expectations that their peers would be more like them in values and actions than those at their previous institutions and this may have established an environment which allowed them to make an easier social adjustment. Gerdes and Mallinckrodt (1994) found that the student's reasons for selecting the institution also affected their social adjustment to the institution.

These three significant variables combined to predict 41% of the variance in the Social Adjustment score for these transfer students. This was a significant portion of the variance and should be considered by Christian universities. Further research should examine those variables which might account for the remaining 59% of the variance.

#### *Recommendations for Christian universities*

It is important to remember that while this study examined student experiences at three distinct universities, it does not provide results which can be quickly generalized and applied to other institutions, since each university and group of students is unique. The questions raised in this study, however, are questions that are relevant to a broad cross-section of institutions and they deserve consideration and exploration in each of those specific environments. The findings from this study provide a number of recommendations for Christian universities.

These recommendations are presented in three groupings: (a) efforts that should be in place before the transfer student arrives on campus – labeled Campus Foundations;

(b) ideas that are focused on the transfer student's transition – labeled Transition Experiences; and, (c) efforts which would be implemented during the student's first semester and provide on-going support – labeled Continuing Support.

### *Campus Foundations*

1. Christian universities should strive to intentionally connect the transfer student's goals to the university early in the recruiting process.
2. A financial aid policy is needed that adequately considers transfer students' financial needs. Strong financial aid might enhance the socio-economic diversity of transfer student persisters and open the Christian university to an even more diverse population.
3. Universities need to establish on-going, intentional efforts to ascertain the actual needs of their transfer students, as a separate and distinct group from their new freshmen students; and they need to allocate resources in order to meet those needs.
4. One way universities could address the above recommendation is by designating a position to serve as a coordinator for transfer students or, based on the tremendous growth and success of First-Year Experience programs in their work to integrate and retain first-year students (Upcraft, Gardner, & Barefoot, 2005), universities could establish a similar effort focused on transfer students. This could include a variety of campus-wide initiatives designed to integrate and retain those students, including the possible implementation of a Transfer Student Seminar to focus on the unique transition issues of transfer students at the university.

5. Since the student's most significant reason for attending their current institution has a strong impact on their academic and social adjustment, the coordinator for transfer students should meet with each new transfer student during their first semester in order to gauge the student's connectedness to the university, determine their reason for the choice of the new institution, and use that information to connect the student to appropriate places on campus.

### *Transition Experiences*

6. Once a transfer student has decided to enroll in the university, it is important that there are structures in place to assist them in their transition. Universities should provide at least some separate and focused programming for transfer students during their orientation programs. These sessions should address the specific transition needs and concerns of transfer students.
7. The results of this study indicate that there is a sizeable group (ranging from 49% to 68% at the three institutions - Table 11) of transfer students who did not attend orientation at their new university. Universities should take strong steps to get those students to attend orientation so that they can make the academic and social connections which will help them to be integrated into the university.
8. Transfer orientation sessions should be led by student leaders with an emphasis on creating community and providing opportunities for social integration, since those are such crucial components to retaining these students. Ideally, these student leaders would have themselves been transfer



students so that they could serve as successful role models for the new transfer students.

### *Continuing Support*

9. All transfer students should be assigned a faculty “mentor” through their department who should connect with them at the start of their first semester in order to provide a connection between the student’s goals, their academic program, and the institution.
10. Additionally, some type of “mentor” from the current upperclassmen in the transfer student’s major should be assigned and they could provide social, academic, and goal and institutional commitment connections.
11. Since the student’s Fall GPA accounted for the largest portion of the academic and social adjustment, the university should utilize mid-term grades to determine how new transfer students are doing in their classes and provide intervention for those who are struggling.

### *Suggestions for additional research*

While this study has added to the research examining transfer students at Christian universities and those factors which affect their persistence as well as their academic and social adjustment, there is still a tremendous amount of research needed in this area. Based on the researcher’s experiences in this study, some recommendations for future research regarding transfer students are:

1. The examination of transfer student retention is still infrequent, especially among Christian universities, and more studies should be conducted in these

institutions in order to provide greater understanding of the departure decisions these students are making. While this study has added to the conversation regarding transfer student retention, more research is needed in this area in order to confirm the findings of this study and to provide a clearer picture of those factors which influence the experiences of transfer students, especially at Christian universities.

2. In future research studies in this area, recruiting or obtaining a more evenly distributed group of students who did and did not choose to return should be a priority. This would provide an important way to confirm the conclusions of this study with a more balanced group of transfer students. A student sample which included a larger number of non-returners would also provide more confirmation of those things which led to students not persisting.
3. A national study of transfer student persistence at Christian universities would add a great deal to this area of research. It would be especially useful if it were supported by Council for Christian Colleges and Universities (CCCCU) and if all of the CCCCCU institutions participated. A comparison might be possible with the data source that Schreiner (2000) and Walter (2000) utilized in their examinations of student persistence at CCCCCU schools.
4. The transfer students, who were selected to participate in this study, may not have been at their new institution long enough. Their responses might not have reflected the impact of many of the experiences of the Christian university, due to their limited time on the campus. Future research could examine this idea and select a transfer student population that has been at the

Christian university for a longer period of time before being surveyed.

Another possibility would be to select two different groups of transfer students, one in their first semester at the university and the other having already spent a year there, and compare the two groups' responses to this same survey to see if their responses are different.

5. Further research is needed to see if the Spiritual Integration construct is significant in Christian universities, especially among transfer students at these institutions. Further examination could also be made of the Spiritual Integration construct and whether it might need to be adjusted in order to be more effective in examining this aspect of transfer student experiences.
6. The Academic Adjustment and Social Adjustment findings need examination in additional studies to further confirm the impact of the significant variables. Also, while these variables predicted a significant portion of the variance (45% and 41% respectively), further research should attempt to determine which variables account for the remaining variance.

### *Conclusions*

Student retention is a complex and complicated area of consideration, but its importance to almost all higher education institutions is undeniable. Christian universities are especially concerned with student retention not only because most are highly tuition dependent, but also because they believe their institutional impact on students is more than just academic – it is also eternal in its significance. Therefore, these institutions want to retain students not only for the financial impact they have and

the desire to educate them academically but also because of their strong desire to prepare students for spiritual service as a part of their institutional missions.

Student retention ultimately comes down to the decisions of individual students to leave or stay at a particular institution. However, that seemingly simply decision has tremendous impact on the student's future, their likelihood to successfully obtain a college degree, and their impact on their overall community as a result. It is this researcher's hope that this study will help Christian universities have a clearer picture of the students who transfer to their institutions and those factors which have the most impact on their decision to persist.

The researcher also hopes that this study will cause Christian universities to ask more questions about the students who transfer to their institutions and strive to better understand these students and their adjustments. Hopefully, these institutions will also find methods to provide programs and intervention for these new transfer students and make the transition smoother for them. The ultimate results of such an effort should benefit the transfer student, the Christian universities, the larger community, and the Kingdom.

## APPENDICES

## APPENDIX A

### Transfer Student Experiences Survey

## Transfer Student Experiences Survey

Thank you for participating in this study of transfer students to Christian universities. Your participation will allow us to reach the 100% participation rate that we need. You may use either a pencil or a blue or black pen to complete the survey, which should take about ten minutes.

### Section 1 – Experiences

Please indicate the extent of your agreement or disagreement with each statement, as it applies to your experience during this semester, by completely filling in the appropriate circle to the right of the question, using this scale:

①=Strongly Agree    ②=Agree    ③=Neither Agree nor Disagree    ④=Disagree    ⑤=Strongly Disagree

#### Question:

#### Responses:

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1. Few of my courses this semester have been intellectually stimulating.  | ① | ② | ③ | ④ | ⑤ |
| 2. I am satisfied with my academic experience this semester.  | ① | ② | ③ | ④ | ⑤ |
| 3. I am more likely to attend a cultural event (for example, a concert, lecture or art show) now than I was a year ago.               | ① | ② | ③ | ④ | ⑤ |
| 4. I am satisfied with the extent of my intellectual development this semester.   | ① | ② | ③ | ④ | ⑤ |
| 5. Being on this campus is contributing to my spiritual growth.   | ① | ② | ③ | ④ | ⑤ |
| 6. In addition to required reading assignments, I read many of the recommended books in my courses.                                   | ① | ② | ③ | ④ | ⑤ |
| 7. My interest in ideas and intellectual matters has increased this semester.   | ① | ② | ③ | ④ | ⑤ |
| 8. I have no idea at all what I want to major in.   | ① | ② | ③ | ④ | ⑤ |
| 9. Getting good grades is not important to me.  | ① | ② | ③ | ④ | ⑤ |
| 10. My academic experience this semester has had a positive influence on my intellectual growth and interest in ideas.                | ① | ② | ③ | ④ | ⑤ |
| 11. My understanding of God is being strengthened by classroom and/or campus experiences.   | ① | ② | ③ | ④ | ⑤ |
| 12. I have performed academically as well as I anticipated I would.   | ① | ② | ③ | ④ | ⑤ |
| 13. I have developed close personal relationships with other students.  | ① | ② | ③ | ④ | ⑤ |
| 14. My interpersonal relationships with other students have had a positive influence on my intellectual growth and interest in ideas. | ① | ② | ③ | ④ | ⑤ |
| 15. Faculty, administrators, and/or staff are helpful to me in processing issues related to my faith.                                 | ① | ② | ③ | ④ | ⑤ |
| 16. The student friendships I have developed this semester have been personally satisfying.   | ① | ② | ③ | ④ | ⑤ |
| 17. My interpersonal relationships with other students have had a positive influence on my personal growth, values and attitudes.     | ① | ② | ③ | ④ | ⑤ |
| 18. It has been difficult for me to meet and make friends with other students.  | ① | ② | ③ | ④ | ⑤ |
| 19. I am dissatisfied with my dating relationships.   | ① | ② | ③ | ④ | ⑤ |
| 20. Few of the students I know would be willing to listen to me and help me if I had a personal problem.                              | ① | ② | ③ | ④ | ⑤ |
| 21. This campus provides adequate opportunities for involvement in ministry.  | ① | ② | ③ | ④ | ⑤ |

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 22. Most students here have values and attitudes which are different from my own.   | ① | ② | ③ | ④ | ⑤ |
| 23. I am satisfied with the opportunities to participate in organized extra-curricular activities here.   | ① | ② | ③ | ④ | ⑤ |
| 24. I am happy with my living/residence arrangement this semester.  | ① | ② | ③ | ④ | ⑤ |
| 25. Given where I am spiritually right now, this campus is a good fit for me.   | ① | ② | ③ | ④ | ⑤ |
| 26. I am satisfied with my opportunities this year to meet and interact informally with faculty members.  | ① | ② | ③ | ④ | ⑤ |
| 27. Few of the faculty members I have had contact with this semester are willing to spend time outside of class to discuss issues of interest and importance to students. | ① | ② | ③ | ④ | ⑤ |
| 28. This semester, I have developed a close, personal relationship with at least one faculty member.  | ① | ② | ③ | ④ | ⑤ |
| 29. My non-classroom interactions with faculty members this semester have had a positive influence on my intellectual growth and interest in ideas.                       | ① | ② | ③ | ④ | ⑤ |
| 30. My non-classroom interactions with faculty this semester have had a positive influence on my personal growth, values and attitudes.                                   | ① | ② | ③ | ④ | ⑤ |
| 31. My non-classroom interactions with faculty this semester have had a positive influence my career goals and aspirations.   | ① | ② | ③ | ④ | ⑤ |
| 32. Few of the faculty members I had contact with this semester are genuinely outstanding or superior teachers.   | ① | ② | ③ | ④ | ⑤ |
| 33. Few of the faculty members I have had contact with this semester are genuinely interested in students.  | ① | ② | ③ | ④ | ⑤ |
| 34. Most faculty members I have had contact with this semester are genuinely interested in teaching.  | ① | ② | ③ | ④ | ⑤ |
| 35. Most of the faculty members I have had contact with this semester are interested in helping students grow in more than just academic areas.                           | ① | ② | ③ | ④ | ⑤ |
| 36. It is important for me to graduate from college.  | ① | ② | ③ | ④ | ⑤ |
| 37. It is not important for me to graduate from this university.  | ① | ② | ③ | ④ | ⑤ |
| 38. I am confident that I made the right decision in choosing to attend this university.  | ① | ② | ③ | ④ | ⑤ |
| 39. It is likely that I will register at this university next fall.   | ① | ② | ③ | ④ | ⑤ |
| 40. Adjusting to the academic standards has been difficult.   | ① | ② | ③ | ④ | ⑤ |
| 41. Adjusting to the social environment has been difficult.   | ① | ② | ③ | ④ | ⑤ |
| 42. Upon transferring I felt alienated at this school.  | ① | ② | ③ | ④ | ⑤ |
| 43. I am very involved with social activities at this school.   | ① | ② | ③ | ④ | ⑤ |
| 44. I am meeting as many people and making as many friends as I would like at this university.  | ① | ② | ③ | ④ | ⑤ |
| 45. My level of stress increased when I started at this university.   | ① | ② | ③ | ④ | ⑤ |
| 46. It is easy to make friends at this university.  | ① | ② | ③ | ④ | ⑤ |
| 47. I feel more comfortable making friends with transfer students than non-transfers.   | ① | ② | ③ | ④ | ⑤ |
| 48. I am satisfied with the spiritual environment at this university.   | ① | ② | ③ | ④ | ⑤ |



## **Section 2 - Demographic Information**

In this section, please select the answer you believe most reflects your background or experience and completely fill in the circle next to that answer.

49. What is your gender?

- ☐ Female
- ☐ Male

50. Which ethnic group do you consider yourself a part of?

- ☐ White
- ☐ Black
- ☐ Hispanic
- ☐ Asian
- ☐ Other

51. What do you consider your religious affiliation?

- ☐ Baptist
- ☐ Catholic
- ☐ Church of Christ
- ☐ Lutheran
- ☐ Methodist
- ☐ Non-Denominational
- ☐ Other

52. What was your composite SAT score?

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53. What was your composite ACT score?

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54. What is the highest degree you plan to complete?

- ☐ Bachelors
- ☐ Masters (including MBA)
- ☐ Ph.D or Ed.D
- ☐ MD, DDS, DO, or DVM
- ☐ JD or LLB
- ☐ Other

55. What is the highest degree you expect to complete at this university?

- ☐ Bachelors
- ☐ Masters (including MBA)
- ☐ Doctorate (PhD, EdD, or DMin)
- ☐ Professional (JD or LLB)
- ☐ Other

56. What is highest level of education completed by your father?

- ☐ Elementary School
- ☐ Some High School
- ☐ High School Graduate
- ☐ Some College
- ☐ Bachelor's Degree
- ☐ Graduate Degree

57. What is highest level of education completed by your mother?

- ☐ Elementary School
- ☐ Some High School
- ☐ High School Graduate
- ☐ Some College
- ☐ Bachelor's Degree
- ☐ Graduate Degree

58. What's your best estimate of your parent's total household income?

- ☐ Less than \$20000
- ☐ \$20-40000
- ☐ \$40-60000
- ☐ \$60-80000
- ☐ \$80-100000
- ☐ More than \$100000

59. Where did this university rank among your choices before enrolling?

- ☐ #1
- ☐ #2
- ☐ #3
- ☐ Lower than #3

60. In the past academic year, approximately how many hours per week, on the average, did you spend in organized extra-curricular activities?

- ☐ 0 hours
- ☐ 1-5 hours
- ☐ 6-10 hours
- ☐ 11-15 hours
- ☐ More than 15 hours

61. Did you attend a summer orientation session?

- ☐ Yes
- ☐ No

62. What was your average grade in HS?

- ☐ A
- ☐ B
- ☐ C
- ☐ D

63. What was your cumulative GPA when you transferred to this university?

---

64. What was the name of the college you most recently transferred from?

---

65. How many semesters were you enrolled in that previous college?

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5 or more

66. How many hours did you transfer from that previous college? (or your best guess)

---

67. While you are in school at this university, how many hours a week do you work?

- ☐ None
- ☐ 1-10
- ☐ 11-15
- ☐ 16-20
- ☐ 21-30
- ☐ 30+

68. Where do you live while you are in school?

- ☐ Residence Hall
- ☐ Other Univ. Housing
- ☐ Off campus house or apt.
- ☐ With parents or relatives

69. Why did you transfer to this university? (for this question, select as many answers as apply)

- ☐ Friends here
- ☐ Academic reputation
- ☐ Geographic location
- ☐ Athletic Opportunity
- ☐ Spiritual Environment
- ☐ Financial Aid Package

70. What was the most significant reason for you to select this university?

- ☐ Friends here
- ☐ Academic reputation
- ☐ Geographic location
- ☐ Athletic Opportunity
- ☐ Spiritual Environment
- ☐ Financial Aid Package

### **Thank You**

Thank you again for your input on this survey. Your responses will be combined with those of other transfer students and they will be used to help the university to more effectively meet the needs of transfer students. If you would like to receive a summary of the results of the study, please check the box below and provide your email address:

- ☐ Yes, I would like to receive a summary of the results of this study of transfer students when it becomes available, my email address is: \_\_\_\_\_.

## APPENDIX B

### Initial Mailed Cover Letter

Joe Transfer  
123 Main Street  
College Town, TX 77777

I am writing to ask for your help in a study of transfer students at (Current Institution name). This study is part of an effort to learn what brings transfer students to the university and about their experiences here. The results of this survey will be used to help improve the experience for transfer students here.

It is my understanding that you transferred to (Current Institution name) this year. I am contacting transfer students like you to ask about (1) why you transferred here, (2) what your experiences have been like this semester, and (3) how satisfied you are here. The survey should only take about **ten minutes** to complete and return in the enclosed pre-stamped envelope. By better understanding students who transfer here, the university will be able to provide information and services to better assist transfer students as they transition.

Of course, your participation in this study is voluntary, and it will not affect your grades in any courses. Your responses will be kept in the strictest of confidence, and completed surveys will be stored in a locked cabinet where only I can reach them. The study will use code numbers on each survey in order to track responses, and those responses will only be shared in summary form – no individual answers will be revealed. There are no foreseeable risks to you in the completion of this survey. However, you are able to help other transfer students very much by taking a few minutes and sharing your experiences as a transfer student. Getting 100% of the surveys completed and returned will provide the greatest help for transfer students. **Please take a few minutes now to complete the survey before October 24, 2005.**

If you have any questions or comments about this study, I would be happy to talk with you. You may reach me at 866-674-2212 (toll-free) or at [gummj@acu.edu](mailto:gummj@acu.edu) (e-mail). This study is part of my doctoral dissertation research and the faculty advisor at Baylor University for this project is Dr. Al Smith (254-710-3050). Inquires regarding your rights as a subject or any other aspect of this research as it relates to your participation as a subject can be directed to Baylor University's Committee for Protection of Human Subjects in Research which is chaired by Dr. Matthew S. Stanford, Department of Psychology and Neuroscience, One Bear Place #97334, Waco, Texas, 76798-7334, phone number 254-710-2236.

Thank you very much for your help with this very important study.

Sincerely,

Eric Gumm  
Doctoral student

P.S. If you would prefer to complete the survey electronically, enter survey number # (student's survey number) at <http://www.zoomerang.com/survey.zqi?p=WEB224M59AGGWR> in order to access the survey form electronically.

Thanks again for your help!

## APPENDIX C

### Initial Emailed Survey Invitation

Subject Line: Transfer Student Study

Dear (Student Name),

I hope that your semester is off to a great start. My name is Eric Gumm and I am writing to ask for your help in a study of transfer students at (Current Institution name). This study is part of an effort to learn what brings transfer students to the university and about their experiences here. The results of this survey will be used to help improve the experience for transfer students here.

It is my understanding that you transferred to (Current Institution name) this year. I am contacting transfer students like you to ask about (1) why you transferred here, (2) what your experiences have been like this semester, and (3) how satisfied you are here. The survey should only take about **ten minutes** to complete. By better understanding students who transfer here, the university will be able to provide information and services to better assist transfer students as they transition.

All you need to do is go to <http://www.zoomerang.com/survey.zgi?p=WEB224M59AGGWR> and enter survey number # (student's survey number) on the first screen. Completing the entire survey should only take about **ten minutes** and your answers will really help the university provide greater assistance to transfer students. In addition, your responses will also help me to complete the research necessary for my doctorate degree. Of course, your participation in this study is voluntary, and it will not affect your grades in any courses. Your responses will be password protected and they will only be shared in summary form – no individual answers will be revealed. **Please take a few minutes now to complete the survey.**

If you have any questions or comments about this study, I would be happy to talk with you. You may reach me at 866-674-2212 (toll-free) or at [gummj@acu.edu](mailto:gummj@acu.edu) (e-mail). As I said, this study is part of my doctoral dissertation research and the faculty advisor at Baylor University for this project is Dr. Al Smith (254-710-3050). Inquires regarding your rights as a subject or any other aspect of this research as it relates to your participation as a subject can be directed to Baylor University's Committee for Protection of Human Subjects in Research which is chaired by Dr. Matthew S. Stanford, Department of Psychology and Neuroscience, One Bear Place #97334, Waco, Texas, 76798-7334, phone number 254-710-2236.

Thank you very much for your help with this very important study.

In His Service,  
Eric

Eric Gumm  
Doctoral Student

## APPENDIX D

### First Reminder Email Message

Subject Line: Transfer Student Study

Dear (Student Name),

I hope that your semester is off to a great start. My name is Eric Gumm and I am writing to ask for your help in a study of transfer students at (Current Institution name). You should have received a packet in your mail last week which contained a survey form and a letter from me asking you to participate in a study of students who have transferred to (Current Institution name) this semester. This study is part of an effort to learn what brings transfer students to the university and about their experiences here. The results of this survey will be used to help improve the experience for transfer students here.

I am following up on the letter which you received to make it easier for you to participate in the study by completing the survey electronically. All you need to do is go to <http://www.zoomerang.com/survey.zq?p=WEB224M59AGGWR> and enter survey number # (student's survey number) on the first screen. Completing the entire survey should only take about **ten minutes** and your answers will really help the university provide greater assistance to transfer students. In addition, your responses will also help me to complete the research necessary for my doctorate degree. Of course, your participation in this study is voluntary, and it will not affect your grades in any courses. Your responses will be password protected and they will only be shared in summary form – no individual answers will be revealed. **Please take a few minutes now to complete the survey.**

If you have any questions or comments about this study, I would be happy to talk with you. You may reach me at 866-674-2212 (toll-free) or at [gummj@acu.edu](mailto:gummj@acu.edu) (e-mail). As I said, this study is part of my doctoral dissertation research and the faculty advisor at Baylor University for this project is Dr. Al Smith (254-710-3050). Inquires regarding your rights as a subject or any other aspect of this research as it relates to your participation as a subject can be directed to Baylor University's Committee for Protection of Human Subjects in Research which is chaired by Dr. Matthew S. Stanford, Department of Psychology and Neuroscience, One Bear Place #97334, Waco, Texas, 76798-7334, phone number 254-710-2236.

Thank you very much for your help with this very important study.

In His Service,  
Eric

Eric Gumm  
Doctoral Student



## APPENDIX E

### Second Reminder Email Message

Subject Line: Transfer Student Help Needed

Dear (Student Name),

I know that this is a very busy time in the semester, but I could really use your help. Three weeks ago I sent you a questionnaire asking about your experiences as a transfer student at (Current Institution name). Only a limited number of students were sent that Transfer Student Experiences Survey, and I am counting on you to take just a few minutes to complete it.

If you have already completed and returned the survey, please accept my sincere thanks. If you have not completed it, please do so today. I am especially grateful for your help because not only will your responses help to improve the experiences of transfer students at (Current Institution name), but they will also help me to complete my dissertation research.

You can return the survey in the postage-paid envelope that came with it, or simply go to <http://www.zoomerang.com/survey.zqi?p=WEB224M59AGGWR> and enter survey number # (student's survey number) on the first screen. The survey will only take about ten minutes to complete -- so I hope you'll do it today!

If you have any questions or comments about this study, I would be happy to talk with you. You may reach me at 866-674-2212 (toll-free) or at [gummj@acu.edu](mailto:gummj@acu.edu) (e-mail).

Thank you in advance,  
Eric

Eric Gumm  
Doctoral Student

## APPENDIX F

### Second Mailed Cover Letter

Joe Transfer  
123 Main Street  
College Town, TX 77777

About four weeks ago I sent a questionnaire to you that asked about your experience as a transfer student at (Current Institution name). To the best of my knowledge, it has not yet been returned. In order to include your responses in the study, I need to hear from you by November 30, 2005.

I am writing again because of the importance of your completed survey being returned in order for the results of this study to be accurate. It is important that we hear back from every student who received a questionnaire in order to have an accurate picture of the experiences of transfer students at (Current Institution name). To make sure that we can hear from you, I have enclosed another copy of the questionnaire – the Transfer Student Experiences Survey. The survey should only take about **ten minutes** to complete and return in the enclosed pre-stamped envelope. By better understanding students who transfer here, the university will be able to provide information and services to better assist transfer.

Of course, your participation in this study is voluntary, and it will not affect your grades in any courses. Your responses will be kept in the strictest of confidence, and completed surveys will be stored in a locked cabinet where only I can reach them. The study will use code numbers on each survey in order to track responses, and those responses will only be shared in summary form – no individual answers will be revealed. There are no foreseeable risks to you in the completion of this survey. However, you are able to help other transfer students very much by taking a few minutes and sharing your experiences as a transfer student. Getting 100% of the surveys completed and returned will provide the greatest help for transfer students. **Please take a few minutes now to complete the survey before November 30, 2005.**

If you have any questions or comments about this study, I would be happy to talk with you. You may reach me at 866-674-2212 (toll-free) or at [gummj@acu.edu](mailto:gummj@acu.edu) (e-mail). This study is part of my doctoral dissertation research and the faculty advisor at Baylor University for this project is Dr. Al Smith (254-710-3050). Inquires regarding your rights as a subject or any other aspect of this research as it relates to your participation as a subject can be directed to Baylor University's Committee for Protection of Human Subjects in Research which is chaired by Dr. Matthew S. Stanford, Department of Psychology and Neuroscience, One Bear Place #97334, Waco, Texas, 76798-7334, phone number 254-710-2236.

Thank you very much for your help with this very important study.

Sincerely,

Eric Gumm  
Doctoral student

P.S. If you would prefer to complete the survey electronically, enter survey number (student's survey number) at <http://www.zoomerang.com/survey.zqi?p=WEB224M59AGGWR> in order to access the survey form electronically. Thanks again for your help!

## APPENDIX G

### Third Reminder Email Message

Subject Line: (Current Institution name) Transfer Student – Help Needed

Dear (Student Name),

This semester is quickly drawing to a close and I am sure that you have a lot to do in the next few days. In the midst of this busy time – I need your help! I need to hear about your experiences as a transfer student at (Current Institution name). This survey is a crucial part of my doctoral dissertation and I need your responses in order to complete my degree. Will you please take the time to help me graduate?

It will only take you about ten minutes to complete the survey and it is easy to get to on-line at <http://www.zoomerang.com/survey.zqi?p=WEB224M59AGGWR>. Just enter survey # (student's survey number) on the first screen and it will take you right to the questions. If you have any questions or comments about this study, I would be happy to talk with you. You may reach me at 866-674-2212 (toll-free) or at [gummj@acu.edu](mailto:gummj@acu.edu) (e-mail).

Thank you so much for your help – I truly appreciate it! I pray that your final exams go well and that your holidays are truly blessed this year.

Thanks, again, to you,  
Eric

Eric Gumm  
Doctoral Student

## APPENDIX H

### Fourth Reminder Email Message

Subject Line: Transfer Student – I could really use your help!

Dear (Student Name),

Congratulations on completing your first semester as a transfer student! Now that you, hopefully, have a little more free time – I could really use your help. Regardless of your experience this semester or your plans for next semester, since you were a transfer student this semester – I need to hear from you.

I contacted you earlier this semester asking you to share your experiences (good and bad) as a transfer student at (Current Institution name). Only a limited number of students were invited to complete that Transfer Student Experiences Survey, and I have not received your responses yet.

Getting enough responses on this survey is necessary in order for me to complete my dissertation and receive my doctoral degree, so it would really help me if you will take ten minutes to complete this survey today. Your responses will also help to improve the experiences of future transfer students.

All you need to do is go to <http://www.zoomerang.com/survey.zgi?p=WEB224M59AGGWR> and enter survey # (student's survey number) on the first screen. Thank you so much for taking the time to help with this study.

I pray that your holidays are blessed this year. If you have any questions or comments about this study, I would be happy to talk with you. You may reach me at 866-674-2212 (toll-free) or at [gummj@acu.edu](mailto:gummj@acu.edu) (email).

Thanks so much for your help,  
Eric

Eric Gumm  
Doctoral Student



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