STUDENT DEPARTURE: ANALYZING THE CUSTOMER SERVICE EXPERIENCE, COMMITMENT TO THE INSTITUTION, AND OVERALL SATISFACTION AS PREDICTORS:
A STUDY AT THE UNIVERSITY OF NORTHERN COLORADO

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by
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Abstract

As an organization, public higher education is going through a significant paradigm shift. There is more focus on the institutions collective productivity in an effort to increase student persistence and retention, and overall graduation rates. The value added nature of higher education continues to be examined by every stakeholder, requiring institutions to articulate results while being more efficient. Accountability and fiscal responsibility coupled with dwindling resources necessitate hitting the “re-start button” in order to survive. Students and parents serve as higher education’s primary constituents and their expectations for higher education have risen dramatically. They demand the best educational experience, state of the art facilities, expanded curriculum, and personalized learning opportunities (Lueddek, 1999). With the evolving times, customary practices and broad-based student retention initiatives may no longer be effective based on the opportunities today’s students have through non-traditional channels. College and university leadership need to support a more service-orientated culture and re-think what it means to keep students persisting. As a result, the way most institutions within higher education currently think and conduct business does not afford aggressive strategies required to continue to function in this new paradigm. Opportunities for modification to the higher education ethos may be revealed in how the private sector does its core work with customers. The purpose of this study examined the extent to which the following three constructs: perceptions of the customer service experience, expressions of commitment to the institution, and overall satisfaction of first year students, living on campus, predicted/explained student departure at the University of Northern Colorado (UNC). For this study, student departure was based on enrollment status at time of official reporting known as census period. Using convenience sampling, the MapWorks® First Year Transition Survey was administered
and actual enrollment one year later was analyzed. Quantitative, secondary data were analyzed by using survey methodology and inferential analysis including simultaneous logistic regression, Chi-Square, and Pearson Correlation were applied. The findings of this study suggest a significant relationship exists between customer service, institutional commitment, overall satisfaction (when analyzed together) and student departure. However, when analyzed individually, customer service and overall satisfaction did not present a significant relationship to student departure, but commitment to the institution alone was a significant factor to departure. Additional findings suggest the importance of institution-specific research related to departure is imperative as opposed to focusing on retention strategies alone. This study provided further validation to relationship marketing by providing student affairs and enrollment practitioners with more information related to the student experience.

*Key words:* student departure, student satisfaction, relationship marketing theory, retention, student persistence, institutional commitment, satisfaction
Acknowledgements

I am blessed and privileged to be able to write this section of my dissertation. I never dreamed I would be at this point, let alone obtain a baccalaureate and master’s degree. This was truly a journey and I would not have made it without the support and care of my wife, Dr. Lisa Guzmán and my beautiful daughter Gabriella Guzmán. Lisa, you inspire me and keep me going. Thanks for always being there. Gabriella, I am doing this for you and dedicate this dissertation to you. Others in my family: Grandma Guzmán, Dad, Marlene, Lena, Tara, and all those that prayed for me throughout this time, thank you! You all believed in me! A special thanks to my work family. I certainly did not do this without your support, motivation, and constant encouragement. Jennifer, Jenna, Jaqueline, Chris, and Tammie, I will always be there for you as you were for me. Lastly, to my colleagues: Robbyn, Linda, Jeanie, Robert, and those of you who always asked “so, how is the dissertation going?” Special recognition to my statistics colleague; I would not have been as knowledgeable in statistics without you. You were so helpful--thank you, Dr. Raymond!

I remember the times our SPC group meet and how I coined the term “one pager purgatory”. I sat in that “one pager purgatory for a while, but I finely managed to do a great one page summary and diagram. Thank you Caulyne and Amy for your support, edits and most of all encouragement during that time.

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Chapter 1: Introduction

This study examined the extent to which perceptions of the customer service experience, expressions of commitment to the institution, and overall satisfaction of first year students, living on campus, predict student departure at the University of Northern Colorado (UNC). This proposal first addresses the research problem and how this problem of practice is relevant to scholars and practitioners. The research questions are presented in a way that allow the researcher to explore several facets to student departure while incorporating the theoretical concept of relationship marketing in the enrollment management setting. Chapter two provides a review of the scholarly literature, and chapter three outlines the quantitative methodology for explaining the research questions.

The Problem of Practice

“Colleges to confront deep cutbacks”; “Governor plans to merge state universities”; “Hard times require planning for the future”; “Building a climate for innovation”; “The world has changed, so why not higher education?” These warnings, along with other refrains of distress, have dominated the weekly headlines of higher education publications over the past five to eight years. Public higher education is experiencing a powerful paradigm shift in the 21st century (Christensen, & Eyring, 2011). Challenging fiscal climates, changing demographics, and increasing competition combined with diverse approaches to what constitutes teaching and learning to create a force for change in contemporary American higher education.

The United States higher education system is in the midst of transition and incredible change with regard to its mission, purpose, and overall operations. This time of uncertainty has forced higher education institutions to re-think how they might reframe the enterprise of higher education. Competition for students has increased due to advancements in technology and the
need for institutions (public, private, community college, and for-profit) to meet overall enrollment objectives has increased as well (McDonough, 1994).

Public institutions, with a strong history of tuition-supported fiscal planning and large-scale enrollment marketing like for-profit institutions, or robust efforts to collect from donors as their private, non-profit peers, may be facing the largest culture shift. The market share of public institutions is decreasing and institutions must innovate to meet this change (Morphew, 2009). However, some institutions remain sluggish responding to the call to action, instead simply “playing around the edges” (Kirshner, 2012; p. 2). Institutions of higher education (IHE) must re-evaluate old ways of looking at how they attract and keep students to remain competitive. They must explore how to enhance student service, increase learning opportunities and bolster ‘product’ offerings for the student of today. Students consider quality, cost, choice, and convenience when making their enrollment decisions (Hossler, 1999). Subsequently, these same factors may influence their ability to persist. Institutions must not only recruit, but also retain students who will persist until graduation to remain competitive.

With this in mind, this research study examined the extent to which institutional commitment, overall satisfaction, and customer service experience of first year students, living on campus, explains/predicts student departure at the University of Northern Colorado (UNC). The problem is informed by two key concepts: student choice and student retention.

**Consumer choice.** The examination of consumer choice in a complex marketplace is common outside of higher education. From a business perspective, the volatility of the external environment plays a role in how businesses function. Organizations can either respond to this dynamism or remain at the status quo and ride out the business cycle. Marquardt (1996) discussed four major areas where organizations experience profound disruption: (1) economic,
social and scientific environment; (2) workplace environment; (3) customer expectations and (4) human resources/employees. Organizational undercurrents such as these are not unique to the private sector; in fact, they are becoming forces of change and uncertainty in higher education. No longer insulated by large state appropriations, public higher education institutions have an urgent need to adapt quickly. Although institutions should address each matter suggested by Marquardt for a robust strategic planning process, the focus of this research study was to understand the changing dynamics of the higher education customer, the student. Businesses and for-profit entities leverage a customer service-centric environment to improve the customer experience, specifically customer retention and loyalty (Ackerman & Schibrowsky, 2007). This frequently used concept in the private sector should be embraced by higher education, exploring how enrollment management is discussed and viewed. Creating meaningful change in response to external pressures may be as simple as revisiting the terms ‘student-centric,’ ‘student service,’ ‘student experience,’ ‘student retention,’ and ‘institutional loyalty.’

**Student retention.** For IHEs, there are many measures of success. One increasingly significant measure is the number of students it retains, leading to subsequent graduation. Retention of students in a higher education setting is most often viewed through a student development lens, which is grounded in the disciplines of sociology and psychology. Student retention can generally be defined as an institution’s ability to keep (retain) students from the moment of enrollment through graduation. It is desired by institutions to have higher levels of student satisfaction that is believed to influence a student’s desire to remain at the institution (Noel-Levitz, 2011).

**Definitions and key terms**

Many terms within this research proposal are used in the scholarly literature and the
higher education setting. The following table provides the reader with clarity regarding the differences between these terms in order to better understand the scope of student departure:

Table 1

*Definitions and Frame of Reference*

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Service</td>
<td>Refers to an organizational management strategy that stresses specific activities designed to meet or exceed expectations so the customer is left with a sense of satisfaction while leading to a long-term relationship (Wagenheim and Reurink, 1991). The concept of customer service uses the framework as having both a process and an outcome (Fogli, 2006).</td>
</tr>
<tr>
<td>Customer service experience</td>
<td>The perceptions students have based on their overall attitude towards the entire interaction with the institution (Hoffman &amp; Bateson, 1997).</td>
</tr>
<tr>
<td>MapWorks® First Year Transition Survey</td>
<td>Refers to a national survey tool specifically focused on student retention, departure and persistence. The tool has been administered for the past 7 years on the UNC campus and the data allow for direct student intervention, overall program development, and provides insight into a student’s college experience.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Commitment to the institution</td>
<td>A measurement of the student’s intent to depart (or return) the institution at the end of the semester or following year.</td>
</tr>
<tr>
<td>Overall satisfaction of the institution</td>
<td>A measurement of the student’s intent of choosing the institution again, recommending the institution to others and evaluating the overall student experience at UNC.</td>
</tr>
<tr>
<td>Non-returning students</td>
<td>Refers to a student who self-reports in the MapWorks® First Year Transition Survey as intending to leave the institution.</td>
</tr>
<tr>
<td>Persistence</td>
<td>Refers to a student who stays within the higher education system from initial enrollment to the subsequent term.</td>
</tr>
<tr>
<td>Student departure</td>
<td>Refers to the action of a student that leaves the institution after the first year. The term is used widely and is referred to in the scholarly literature in many ways. Often the word “departure” is inclusive of the terms attrition, withdrawal, non-retained, dropout, and stop out.</td>
</tr>
<tr>
<td>Retention</td>
<td>Refers to the action of a student that remains at the institution and continues their enrollment to the subsequent academic year.</td>
</tr>
</tbody>
</table>
Scope of the Research

Like many institutions of higher education across the nation, the University of Northern Colorado is experiencing change, frequently referred to as the ‘new normal’ of public higher education. For many years, the call to action for colleges and universities was simply to enroll students, colloquially referred to as “churn and burn” (Raisman, 2010). However, when students depart IHE, colleges and universities decrease their ability to meet the core mission of educating students. An opportunity may exist for a fundamental system change and philosophical refinement; from merely recruiting students to averting departure of students already enrolled.

According to Institutional Reporting and Analysis (2013), the University of Northern Colorado (UNC), the study site, enrolls an average of 2,259 first years students and loses roughly 289, or 12.7%, of first year students between the first fall semester and the subsequent spring semester, based on a three-year average. Between the first fall of enrollment and the subsequent fall, an average 746 students, or 33.02%, depart the institution. These trends have increased: in the 2011-12 academic year, the number of departed students increased 3% over the previous two years. UNC is a residential campus, housing, on average, 86.9% or 1,963 of first year students. At the close of the fall semester, an average of 387 first year students living on campus, or 19.7% (based on a three-year average), departed (Housing & Residence Education Occupancy Report, 2012).
Table 2

*Freshman Cohort Persistence Metrics*

<table>
<thead>
<tr>
<th>Term</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; Term (Fall)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>955</td>
<td>825</td>
<td>866</td>
<td>862</td>
</tr>
<tr>
<td>Female</td>
<td>1416</td>
<td>1440</td>
<td>1428</td>
<td>1356</td>
</tr>
<tr>
<td>Total</td>
<td><strong>2370</strong></td>
<td><strong>2265</strong></td>
<td><strong>2294</strong></td>
<td><strong>2220</strong></td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Term (Spring)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>836 (87.5%)</td>
<td>724 (87.8%)</td>
<td>741 (85.6%)</td>
<td>747 (86.7%)</td>
</tr>
<tr>
<td>Female</td>
<td>1271 (89.8%)</td>
<td>1272 (88.3%)</td>
<td>1245 (87.2%)</td>
<td>1182 (87.2%)</td>
</tr>
<tr>
<td>Total</td>
<td><strong>2107 (88.9%)</strong></td>
<td><strong>1996 (88.1%)</strong></td>
<td><strong>1986 (86.6%)</strong></td>
<td><strong>1929 (87.0%)</strong></td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt; Term (Fall)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>606 (63.5%)</td>
<td>541 (65.6%)</td>
<td>523 (60.4%)</td>
<td>530 (61.5%)</td>
</tr>
<tr>
<td>Female</td>
<td>1031 (72.8%)</td>
<td>1015 (70.5%)</td>
<td>997 (69.8%)</td>
<td>933 (68.8%)</td>
</tr>
<tr>
<td>Total</td>
<td><strong>1637 (69.0%)</strong></td>
<td><strong>1556 (68.7%)</strong></td>
<td><strong>1520 (66.3%)</strong></td>
<td><strong>1463 (66.0%)</strong></td>
</tr>
</tbody>
</table>

As such, UNC should consider exploring the issue of student departure and be deliberate in providing a balanced approach to college access and student success. One significant issue for UNC has been the lack of asking the right questions and taking the appropriate action related to student departure. Approximately 30% of first year students depart after the first year at UNC and over the last 20 years, this metric reflects a relatively consistent trend line. The national, state and local concern continues to evolve and former assumptions need to be challenged and new ways of addressing the phenomena need to be explored to solve such problems (Marquardt, 2005).
Like some institutions, UNC surveys students using national instruments that benchmark various aspects of the institution. Over the years, the student experience and satisfaction has had fluctuating ratings depending on what is being measured. Knowing there is a relationship with satisfaction and retention, the converse, student departure, is an area of concern for faculty, student service professionals, and university administration.

The specific problem in need of study sought to understand how institutional commitment, overall satisfaction, and customer service experience predict/explain student departure when these variables are examined from a quantitative perspective. As with many Institutions of Higher Education (IHE), it is helpful for UNC to better understand (1) Why do, on average, 12.7% of first years students depart after the first semester and 33.02% of first year students depart after their first year; (2) What are the self-reported causes of student departure; and (3) how can UNC be successful in first year student persistence? In general, IHE place heavy emphasis on retention metrics that focus on a student’s first year leading to the second year; however, this timing may be too late in understanding the issues students face. Moreover, it may be possible to prevent the loss if the matters are addressed at an earlier stage. Since this issue is a level of concern for the researcher and the institution, the aforementioned questions are broad and the intent of this research was to answer elements of these questions. Overall, IHE can be better poised at understanding “the-what” and “the-why” of the problem. Consequently, UNC knows little about:

1. What factors are at play when students decide to depart the institution?
2. Does the level of service students receive play a role in their decision to depart?
3. Does the level of service students receive play a role in their decision to remain at the university?
What is the role of student support offices such as enrollment management offices and student affairs units (career services, financial aid, housing, and registrar) in preventing unnecessary student departure as it relates to a student’s institutional commitment, overall satisfaction, and customer service experience?

**Significance**

Despite over 40 years of research related to student departure and deteriorating college completion rates, the issues remain important and have been illuminated in the economic downturn that began in 2008. IHE need to examine the student’s experience *during* and *throughout* the student-institution interaction. This may reveal a point in time when students make a decision to depart or not. For many years, institutional quality and overall student satisfaction have been assessed by external entities such as state legislators, accrediting bodies, and the public. Often, these entities view the lack of substantive, positive change in student departure, retention, and college completion metrics negatively (Barefoot, 2004). Despite attention and the efforts made by IHEs to prevent student departure, students who persist after their first year have seen negligible movement, increasing only 2% since the 1930s (ACT, 2006). Although a number of studies and in-depth research related to the topic of ‘keeping students in college’ has been covered extensively, the complexity of the issue remains.

To further reveal the importance of keeping students from departing, Noel-Levitz (2011), a nationally-recognized enrollment management consulting firm and leader in higher education trend research, gathered survey data between fall 2008 and spring 2011 from students attending 819 colleges and universities and produced the *National Student Satisfaction and Priorities Report*. For purposes of this document, the focus of the results will be on the category of four-year public universities in which Noel-Levitz had a sample size of 81,094 students representing
this group. Most notable from this research is the importance of “service” or how students are treated as a significant component to student satisfaction (Noel-Levitz, 2011). Although significant strides have been made to improve quality of service and overall student satisfaction, colleges and universities still have room for growth. A further finding of the research exposes high correlation that a student’s indicator of affect produces their propensity to stay enrolled at the institution (Noel-Levitz, 2011). Performance gaps in levels of perceived satisfaction compared to the level of importance to the student have increased over the past three years for four-year public colleges and universities, which is an indication that service delivery on these four-year public campuses may be declining (Noel-Levitz, 2011).

Table 3

*National Campus Climate Assessment of 4 Year public institutions (Noel-Levitz, 2011)*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance</td>
<td>6.11</td>
<td>6.11</td>
<td>6.18</td>
<td>6.17</td>
<td>6.14</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>5.04</td>
<td>5.08</td>
<td>5.22</td>
<td>5.23</td>
<td>5.15</td>
</tr>
<tr>
<td><strong>Performance Gap</strong></td>
<td><strong>1.07</strong></td>
<td><strong>1.03</strong></td>
<td><strong>0.96</strong></td>
<td><strong>0.94</strong></td>
<td><strong>0.99</strong></td>
</tr>
</tbody>
</table>

*Items comprising this scale:* Most students feel a sense of belonging here; This institution shows concern for students as individuals; It is an enjoyable experience to be a student on this campus; I feel a sense of pride about my campus; This institution has a good reputation within the community; There is a commitment to academic excellence on this campus; The campus staff are caring and helpful; Students are made to feel welcome on this campus; Administrators are approachable to students; I seldom get the “run-around” when seeking information on this campus; I generally know what’s happening on campus; Tuition paid is a worthwhile investment; There is a strong commitment to racial harmony on this campus; Channels for expressing student complaints are readily available; Freedom of expression is protected on campus; Faculty care about me as an individual; The campus is safe and secure for all students.

**A national perspective.** President Obama announced an immediate “call to action” to institutions of higher education by asking American higher education to recalibrate its role and
purpose to the American public (Wood, 2012). One of the highlights of the President’s 2009 State of the Union address called for the United States to have the highest proportion of college graduates in the world. The emphasis on this statement is the outcome: “college graduates,” not simply a greater number of students enrolling into college. Currently, 42% of Americans between the ages of 25-34 hold a degree from a two or four-year institution (Kanter, 2011). According to a report by the Organization for Economic Co-operation and Development, Education at a Glance (2010), the United States has held steady with this proportion; however, other countries’ educational attainment has risen, leaving the U.S. 9th in the world tied with Israel (as cited in Kanter, 2011).

The state of Colorado, in which the University of Northern Colorado is located, has called for increased attention to the college dropout and persistence rates among the public institutions, ultimately leading to an increase of the number of degrees awarded. A report, produced by the Higher Education Strategic Planning Committee, The Degree Dividend (2010), points out degree completion being an issue in the state and student departure is further described as a “prominent leak in the state’s public higher education system” (p.16). As a result, the state needs to transform its current practices and determine strategies to best achieve this goal. As with any organization or body, aspects of success, and sometimes overall survival, depend on an organization’s ability to adapt to a changing environment (Marquardt, 2005).

**An institutional perspective.** In 2012, the President of UNC outlined her vision for the university noting the following remarks:

UNC must take control of its own fate to fulfill the responsibility as a public doctoral research university in an evolving higher education landscape characterized by reduced
state support, demographic changes in the college-going population, and the changing
demand for academic programs, delivery models and services. (Norton, 2012)

Based on these statements, the president’s request is clear and parallels the national and local
perspectives. Furthermore, the president of UNC invited the university and city community to
explore ways in which to go about serving students and assisting with their persistence. She
emphasized this task may be done through unconventional methods, as this will provide an
opportunity for thinking beyond the traditional manner typical of higher education. In response
to the changing focus of state and federal policymakers, UNC established several ambitious
enrollment goals for the ensuing years. The institution’s 2009 enrollment plan calls for
decreasing student departure and increasing degree completion by 2018. The institution will
work toward a 5% improvement in the percentage related to student retention (first year to
second year) and a 5% improvement in the six-year graduation rate (UNC Enrollment Plan,
2010). It is important to note, increases of this nature are unprecedented in UNC’s history and to
reach them will require new approaches informed by actionable data and further intelligence.

The shifting outlook of higher education is a compelling reason for UNC to intentionally broaden
its enrollment management approach. The breadth of enrollment stretches from recruitment
through graduation and understanding why students depart the system provides a holistic picture
as to what is working, or not working, for students on the UNC campus. This research will bring
further clarity and create strategic opportunities for the University of Northern Colorado.

**Gaps in extant research.** Higher education literature related to student departure is not
as in-depth as the literature related to student retention. Many institutions across the nation have
placed a heavy focus on creating programs (academic and social) that work toward keeping
students engaged. College and university staff question what they must do to retain students.
Although this inquiry is good and may illicit great intervention programs, the question can be further enriched by asking, “why students leave an institution”.

Although relatively few scholarly articles exist related to blending higher education and practices of customer service, a study with focused attention on student departure can make an important contribution by providing a practical framework and foundation for the new normal and evolving higher education.

This research was intended to help examine aspects to this question early on in the student’s college or university experience with the use of the MapWorks® First Year Transition Survey. After exploring other research that incorporate MapWorks® First Year Transition Survey and student departure, none exist at time of writing this proposal. Two other dissertations use the MapWorks® First Year Transition Survey to study first generation students and their early integration while the other investigates factors that influence first year persistence. Colleges and universities using the survey instrument have the ability to contribute to the survey by adding institution specific questions (ISQ) in addition to the standard questions provided by MapWorks® First Year Transition Survey. The researcher added an ISQ related to students’ perceptions of customer service. This provides differentiation with other MapWorks® First Year Transition Survey research and provides a unique aspect to explain the data as it relates to student departure. Moreover, these studies and much of the higher education literature appear to encompass more research on measuring a student’s intention to return to the institution and less empirical research on the relationship between a student’s institutional commitment, overall satisfaction, and customer service experience in order to explain or predict departure behavior. The advantage of the latter moves the research a step further by truly assessing the student’s actual departure with expressions of their institutional commitment, overall satisfaction,
and perceptions of their customer service experience. This type of research provides further information on what variables are triggers to departure or not. Finally, since this topic has been studied for many years, original studies on student departure may be obsolete or incongruent with the student of today; therefore, understanding student departure in the 21st century contributes to the existing research.

**Intended audience.** This study addressed the problem of practice of student departure and the primary audience is UNC administration, professionals in higher education (particularly enrollment management and student affairs professionals), and those concerned with overall student persistence in higher education. Units such as financial aid, registrar, dining services, or residential life are considered co-curricular (in support of classroom instruction) and typically have mission statements focused on providing a direct service to students. Lastly, this research provides sophisticated and progressive recommendations on how students are served and allows unique collaboration/partnerships between higher education and the private sector.

**Positionality Statement**

Based on various perspectives taken from student development theory, management theory and the demonstration of a rapidly changing higher education landscape, I advocate for public higher education to aggressively respond to the new paradigm in a way that places emphasis and attention on decreasing the number of students that depart from the institution in order for them to persist to graduation. This can be accomplished through various ways and the private sector (businesses and corporations) has provided a significant number of studies and overall narrative on topics related to customer service, loyalty and satisfaction. However, higher education has not fully embraced what has emerged from this literature or operationalized these practices to our work in higher education. Throughout my professional career working in units
that provide a number of student services, I have developed a bias in which I believe the higher education enterprise lacks an understanding of how to effectively implement customer service practices so that outcomes of student satisfaction and the overall student experience are enriched. The following explanations are frequently mentioned as reasons why a service-orientation in higher education does not work: (1) Student satisfaction is viewed as an inappropriate measure for higher education because satisfaction requires that the customer (student) is always right (Demetriou, 2008); (2) Higher education does not function as a business; therefore, the private sector model of customer service serves as an imposition on higher education; and (3) A belief that customer service ideologies do not matter to students; consequently, it does not need to be a focus for colleges and universities. Therefore, a dialectical tension is created and public higher education shows resentment toward private sector standards related to customer service and satisfaction; yet, 40 years of higher education research on student departure and student persistence has not garnered a positive trajectory. My position rests with the desire to have this concept brought forth into the literature in order to make a contribution to the field of higher education.

**Overview of Methodology**

This study was quantitative in nature, examining the extent to which institutional commitment, overall satisfaction, and customer service experience (independent variables) of first year students, living on campus, explains/predicts student departure (binary dependent variable), at the University of Northern Colorado (UNC). The independent variables are defined as follows: (1) Commitment to the institution (Standard Question): a measurement of the student’s intent to depart (or return) the institution at the subsequent semester or following year; (2) Overall satisfaction of the institution (Standard Question): a measurement of the student’s
intent of choosing the institution again, recommending the institution to others and rating the overall student experience at UNC; (3) Customer service experience (Institution Specific Question): the perception students have based on their overall attitude towards the entire interaction with the institution (Hoffman & Bateson, 1997).

The binary dependent variable was defined as student departure, which refers to the action of a student who leaves the institution after the first year. In addition, this study did not include common predictors of student departure that are most commonly cited in the literature. This was done intentionally in order to assess the independent variables on their own without influence of such variables as gender, socio economic status and race/ethnicity. Students living on campus (new first-time enrolled freshman) who completed the MapWorks® First Year Transition Survey, administered by the department of housing and residence life were eligible for this study.

**Hypotheses.** This study hypothesized a student’s perception of their customer service experience and stated expressions of their commitment to the institution and overall satisfaction of the institution predict student departure. Through a quantitative research design, this study asked the following research questions:

**RQ1:** Do student perceptions of their customer service experience and expressions of their commitment to the institution and overall satisfaction of the institution (as combined variables) predict student departure (binary) at the University of Northern Colorado?

**H₀₁:** There is no relationship between students who depart UNC and their perceptions of their customer service experience and expressions of their commitment to the institution and overall satisfaction of the institution.
H1: There is a relationship between students who depart UNC and their perceptions of their customer service experience and expressions of their commitment to the institution and overall satisfaction of the institution.

RQ2: Do student perceptions of their customer service experience predict student departure (binary) at the University of Northern Colorado?

H02: There is no relationship between students who depart UNC and perceptions of their customer service experience.

H12: There is a relationship between students who depart UNC and perceptions of their customer service experience.

RQ3: Do student expressions of their commitment to the institution predict student departure (binary) at the University of Northern Colorado?

H03: There is no relationship between students who depart UNC and their expressed commitment to the institution.

H13: There is a relationship between students who depart UNC and their expressed commitment to the institution.

RQ4: Do student expressions of their overall satisfaction of the institution predict student departure (binary) at the University of Northern Colorado?

H04: There is no relationship between students who depart UNC and their expressed overall satisfaction of the institution.

H14: There is a relationship between students who depart UNC and their expressed overall satisfaction of the institution.
**RQ5:** Do student perceptions of their customer service experience and their expressed commitment to the institution predict student departure (binary) at the University of Northern Colorado?

**$H_05$:** There is no relationship between students who depart UNC and their customer service experience and their expressed commitment to the institution.

**$H_15$:** There is a relationship between students who depart UNC and their customer service experience and their expressed commitment to the institution.

**RQ6:** Do student perceptions of their customer service experience and their expressed overall satisfaction of the institution predict student departure (binary) at the University of Northern Colorado?

**$H_06$:** There is no relationship between students who depart UNC and their customer service experience and their expressed overall satisfaction of the institution.

**$H_16$:** There is a relationship between students who depart UNC and their customer service experience and their expressed overall satisfaction of the institution.

**RQ7:** Do student expressions of their commitment to the institution and overall satisfaction of the institution predict student departure (binary) at the University of Northern Colorado?

**$H_07$:** There is no relationship between students who depart UNC and their expressed commitment to the institution and overall satisfaction.

**$H_17$:** There is a relationship between students who depart UNC and their expressed commitment to the institution and overall satisfaction.

**Research design.** Student data from the *MapWorks® First Year Transition Survey* was used and logistic regression was applied to identify the factors most strongly associated with student departure. The researcher chose this quantitative, non-parametric, inferential
statistical technique based on the dependent variable defined as categorical and dichotomous with more than one independent variable (Creswell, 2004). Typically a logistic regression statistical technique is used in research and allows for the researcher to test the impact of two or more variables on a unique variable such as an independent variable (Fraenkel, Wallen, & Hyun, 2012).

**Population and sampling.** Participants for this study included the cohort of first year students who were enrolled at UNC as of fall 2013. The site and population were selected based on the researcher’s professional goal to better understand the salient issues of student retention and departure facing the institution at the present time. The sample of students were officially enrolled in the fall semester of 2013 and expected to return to the institution in fall of 2014. The total number of students that participated in the survey was approximately 2,094. In addition, incomplete surveys were eliminated through the process of auditing the data set. Lastly, the MapWorks® First Year Transition Survey data was paired with UNC’s Student Information System, Ellucian Banner, to identify who persisted and those who departed from the fall 2013 cohort to fall 2014.

**Theoretical Framework**

Figure 1 displays a diagrammatic depiction of the primary theory used in this study, relationship management theory (Berry, 1983). This theory influenced this research, bridging key concepts: customer service (Waggenheim and Ruerink, 1991), commitment (Braxton, Hirshey & McClendon, 2004) and satisfaction (Kuh, Gonyea, & Williams, 2005). The diagram presents the relationship among these variables and operationalized in this study using the MapWorks® First Year Transition Survey. Through operationalization of the constructs, the diagram links the seven hypotheses presented in the study.
Figure 1. Theoretical diagram displaying the relationship between three theoretical concepts, operationalization of variables, and research hypothesis leading to a binary outcome.

In addition to drawing upon relationship marketing theory (Berry, 1983) this research was complimented by the growing research surrounding enrollment management, which incorporates all facets of the student life cycle—recruitment though graduation (Hossler & Bean, 1990). These concepts are explored in detail, beginning with relationship marketing.

**Relationship marketing.** In the late 1980s through the 1990s, businesses began to focus on retaining existing customers. Managerial concerns shifted to market share and competition. Consequently, customer retention quickly became a heavily examined topic, producing a variety of viewpoints and perspectives. Business and for-profit entities in the service industry soon realized keeping existing customers or preventing the departure of existing clientele was more cost-effective than the revolving door of continuously recruiting new customers.

The practice of keeping existing customers by achieving loyalty stemmed from the concept of *relationship marketing* (*RM*). The term was first introduced by Berry in 1983, and later defined in similar ways by scholars in the business and marketing fields. Berry’s (1983) definition of relationship marketing included “attracting, maintaining and – in multi service organizations – enhancing customer relationships” (p.4), focusing on the need for strong relational exchanges that result in a positive customer experience. Furthermore, this approach suggests organizations should not solely focus on new customers, but the interactions throughout the customer’s lifetime. In other words, organizations should ask how their organizational transactions influences the attention and value afforded to customers over the whole period that they are customers. Never the less, throughout this time, values of trust and loyalty can be
achieved, which Berry (1995) describes as fundamentals critical to the longevity of the relationship from a personal and professional perspective.

The nurturing nature of relationship marketing is intended to keep the interest of the customer as the central focus of the organizations interactions with them. The investment in sustaining the interest of the customer goes far beyond a simple transactional approach that many companies find untenable in building a solid organization.

Contrasted with the traditional approach of transactional marketing, relationship marketing has a special emphasis on high-touch strategies. Christopher and Ballantyne (1991) compared transactional and relationship marketing, illustrated in Table 4.

Table 4

*Differences between Transactional Marketing and Relationship Marketing*

<table>
<thead>
<tr>
<th>Transactional Marketing</th>
<th>Relationship Marketing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus on single sale</td>
<td>Focus on customer retention</td>
</tr>
<tr>
<td>Orientation on product features</td>
<td>Orientation on product benefits</td>
</tr>
<tr>
<td>Short time scale</td>
<td>Long time scale</td>
</tr>
<tr>
<td>Little emphasis on customer retention</td>
<td>High customer service emphasis</td>
</tr>
<tr>
<td>Limited customer commitment</td>
<td>Higher customer commitment</td>
</tr>
<tr>
<td>Moderate customer contact</td>
<td>Higher customer contact</td>
</tr>
<tr>
<td>Quality is primary concern of the production</td>
<td>Quality is a concern by all</td>
</tr>
</tbody>
</table>

As noted in Table 4, relationship marketing, stresses substantial emphasis on customer contact, relationships and commitment. Never the less, this personalized approach generates ongoing interest from the customer; therefore, each touch point needs to be personalized and
customer-centric throughout the organization. Since the overall distinctive performance outcome is to sustain customer interest and engagement, a mutual interdependence and collaboration must exist between the organization (supplier) and the consumer (Sheth & Parvatiyar, 2002).

**Modern-day expectations.** Although Berry (1995) covered the philosophical, strategic and operational dimensions of relationship marketing, the themes of trust, commitment, and long-term relationships are abundant in the theory. According to Berry, both big and small organizations need to learn when and how to humanize their organizations, regardless of whether the contact is face-to-face or through the use of social media. As the consumer market has changed, so have the expectations. Consumers of today desire companies to understand their needs and wants and to adapt products and services to these expressed needs and wants (Bhattacharya & Sen, 2003). One of the key measures of relationship marketing is customer satisfaction. As with most businesses, the customer experience is critical. Based on the level of satisfaction with the services they receive, a more satisfied customer tends to procure more (Reichheld & Sasser, 1990). Businesses rely on a positive experience and most likely; a positive experience leads to the prevention of customer defection (Reichheld & Sasser, 1990). Decreasing customer defection rates is critical for retention. As the rate of defection falls, the average customer relationship lifespan expands. Conversely, when customers defect, they take profits away and potentially engage in negative word of mouth comments (Reichheld & Sasser, 1990).

This particular perspective matters greatly because sustaining a competitive advantage through relationships and a service-centric philosophy, especially during this time of contending forces, may increase a student’s persistence in college. This theoretical perspective provides a
framework for considering overall student persistence and the customer service experience at the University of Northern Colorado.

**Enrollment management context and evolution.** The development of Enrollment Management (EM) as a discrete field is fairly new to the higher education enterprise. Since the 1970s, EM has quickly evolved within colleges and universities and has become increasingly important (Coomes, 2000). With roots in admissions, the function of enrolling students became much more complex than the mechanics of a single office. As such, institutions began developing divisions of EM in order to coordinate services such as admissions, marketing, records and registration, financial aid, and student orientation. EM grew and evolved, and several changes in higher education influenced this development process. Specifically, Coombs (2000) highlighted the convergence of the availability of federally funded financial aid, the development of research and scholarly work within the field, and changes within university structures.

**Enrollment management: The early years.** Historically, according to Coomes and Gehring (1994) student enrollment in colleges and universities was not driven by strategic actions per se, but flourished simply due to the expansion of more colleges and universities. Since 1965, enrollment expanded, specifically by women and people of color. Throughout this time, several bodies of research were developed and the focus of this research was solely based on understanding why students fail to persist in college (Braxton, Hirschy, & McClendon, 2011). By the mid-1970s, because of the previous work of the federal government and the development of financial aid programs and theorist’s empirical research on student departure and retention, these driving forces contributed to the development of enrollment management as a concept and organizational structure (Bruning, 2002). Policy and practice further developed the profession of
enrollment management. The expansion of research and exploring relationships to student enrollment and persistence were major topics that dominated the literature and college administrator’s discussions.

**The changing landscape of enrollment management.** Consistent with progressing systems, structures, and environments, the landscape of enrollment management developed accordingly. As enrollment management began its growth, so did the political setting which heavily influenced and brought forth change, often through the Higher Education Act. Through the evolution of enrollment management, the profession was tasked with the overall responsibility of attracting, recruiting, and enrolling students with the desire for them to become alumni of the institution; this became known as the student life cycle (Coomes & DeBard, 2004). The increased competition brought forth new direction in how to manage the complexities of access and success of students. In addition, the composition of incoming students had transformed and continued to change in terms of academic profile, ethnic diversity, academic preparation, and ability to pay. Universities became concerned about devoting the right amount of time and attention to keeping students as much as recruiting and enrolling students. Enrollment management responsibilities were not solely the function of an admissions office. The responsibility spanned across all departments of the University, which allowed for formulating strategies more comprehensive than in years past.

In the context of this research on student departure at UNC, emerging theories such as relationship marketing appear more in research findings related to marketing strategies that are increasingly relevant to higher education. Since higher education has entered a new marketplace, systems specially designed for the student of today are important to implement in order to attract students and retain them. The work of higher education has evolved into a
service industry. The application of relationship marketing theory and the practice of enrollment management functions are clear as it relates to student satisfaction, retention, and simply stated: keeping students enrolled in order for them to graduate. Ackerman and Schibrowsky (2007) suggest the future of higher education is about building long-term relationships with students. It is their belief institutional philosophy and practice are based on a marketing principle that allows University leaders to have a different view of the institution’s role with students. Regardless of the role or job, one has on campus, everyone who has contact with students; share a responsibility for building a relationship and strengthening the connection with them.

Traditional service-oriented businesses have strayed away from transactional marketing strategies. Quite simply, customers demanded more. Long-term relationships were needed to enhance the customer experience which are methods used to enhance, not only the relationship, but also the duration with the customer. Increasing the long-term relationships with students may lead to their retention, or prevent their departure. Students commit many of their years integrating their academic and social life within a university setting. The student–university relationship needs to be recognized as an important factor in the student lifecycle of enrollment management. In essence, because of the experience the student has on his or her campus, the outcome may lead to greater loyalty or commitment to the institution. Overall, combining relationship marketing theory and the practices of enrollment management provide an opportunity to analyze the necessary theoretical structure and organizational efforts to investigate the identified problem of practice. Student departure is a phenomenon that can be viewed from many different perspectives. The aforementioned theory and administrative model placed the examination of this problem into an organizational context and sought to understand, from a quantitative nature, the perceived experiences of students at UNC and these experiences’ might
help explain student departure. Evaluating the student-university relationship serves as an important practice that allows the organization to step away from dissecting parts and pieces of student departure, and begins to look critically at the system as a whole.

**Organization of this Proposal**

The following chapter presents an overview of the literature related to retention, student departure, and customer service. Chapter 3 features the methodological approach or research design that was used to guide the study toward further clarity of the research questions. This was conducted through a quantitative design using logistic regression and other statistical techniques. Logistic regression is typically used when evaluating a dichotomous dependent variable. Also, contained within this section is further explanation of the study’s approach, strategy and procedures in collecting data, to later bridge this research to practice. The proposal concludes with a summation of the previous sections and next steps.
Chapter 2: Literature Review

The literature review for this study focused on the intersection of lenses that provide further clarity and significance pertaining to the problem statement.

In order to focus attention on the salient variables particular to this research project, the review of the literature was guided by the following questions:

1. What research exists regarding student departure?
2. What body of literature exists related to deploying strategies in an effort to prevent departure, obtain loyalty and commitment, and assess satisfaction?
3. What body of literature exists relating customer service to the higher education setting?

Question one served as a nexus for this problem of practice and addressed the issue of student departure, directly. The literature consisted of rich and robust longitudinal research complimented with theoretical constructs that honed in on the long-term issue of retention, attrition, departure and student persistence and the challenges faced by students. Many times these issues become barriers to a student’s success in degree attainment. The literature on this topic is deep and can be dissected and analyzed in numerous ways, leading to a very overwhelming review. However, given the research questions within this proposal, it is within the context of the research questions that framed the examination of the literature. Lastly, questions two and three provided a non-traditional approach of thinking about service in a higher education setting. For some, the term “customer service” used in the higher education context is a trigger and not always embraced. Most often, students are not viewed as customers and the “product” offering is not their education. The researcher agrees; yet, this study focused on non-academic areas that fall into the enrollment management and student services spheres. Such
administrative Units outside of the classroom setting augment classroom instruction in the pursuit of a student’s education. The scholarly work presented in this review address the broad and varied areas of student departure and business management theory and allow the reader to gain a stronger perspective of the dominant subjects contained within these topics.

**Historical Context of Student Departure**

The theory of student departure was first introduced through Vincent Tinto’s Model of Institutional Departure. Tinto’s (1993) model has been a significant framework for practitioners of enrollment management, student affairs and in American higher education. Tinto’s seminal work, Leaving College (1993) illuminated the phenomena of student departure and emphasized the role that IHE play in the departure process. Tinto’s (1993) explicit emphasis was the approach in which IHE influence students’ social and intellectual development. Tinto’s model places emphasis on the individual student experience regardless if the experience exists within or out of the classroom. Tinto referred to these settings as formal and informal in which students experience the social or intellectual aspects of college life. The finding most prominent in his longitudinal model of departure suggests varying levels of student attributes interact with experiences within the environment of the institution in order to foster social and intellectual levels of integration. As a result, this leads to greater institutional commitment and persistence through college (Tinto, 1993). Consequently, a negative experience with the institution decreases the commitment level and may prompt departure from the institution.

**Theoretical underpinnings.** This theory assists in understanding the degree to which activities by colleges and universities can influence a student’s decision to remain or depart the institution. Additional research indicates more than one in four students depart during the first year (Braxton, Brier, & Steele, 2007). Moreover, “approximately one-half of students who enter
higher education do not earn a bachelor’s degree after five years” (Keup, 2005, p. 62). Despite a progressing body of research that goes back more than 40 years, attrition rates (number of students who depart institutions) have made little improvement (Braxton et al., 2007). Perhaps another way of assessing this issue is acknowledging the reality that institutions have not been successful in converting the body of literature related to retention and attrition into best practices for student persistence (Swail, 2003; Tinto, 2007). Vincent Tinto’s theory of student departure serves as one lens in which to understand this issue. Other theories related to student departure have been successful at defining or describing student departure; however, they do not detail the process or progression that leads to departure (Tinto, 1993). Tinto (1975) believed a student’s commitment to the institution would determine whether that student would graduate. A student may depart due to reasons external to the university; however, regardless of the reasons, proactive identification of students at risk for departure should be noticeable through assessing a student’s educational and institutional goals, and commitments (Tinto, 1975). Institutions of higher education devote a lot of time, effort and resources into the overall experience of the student. A student’s experience can be articulated in many ways such as the opportunity for robust intellectual development, a variety and diversity of campus activities, a feeling that the institution is student-centered vs. institution-centered, and the availability of services outside the classroom that foster student’s growth personally and academically. Activities of this nature occur across all aspects of the university, both within and outside the classroom. The work of keeping students at an institution does not occur within a vacuum and a “magic bullet” does not “just make it happen”. It is a coordinated effort and a web of actions that provide a good formula for true success. Conversely, the number of students that depart an institution may serve as an
indicator of the social and intellectual well being of the institution as much as of the students' experiences (Tinto, 1993).

**Departure cycle.** Despite the large body of existing literature on retention, research is limited on why first-year students voluntarily depart by not re-enrolling for the subsequent semester. This subgroup is important to an institution since it begins the cycle of an institution’s attrition of students. There are plenty of reasons a student chooses to discontinue enrollment and many of the issues such as personal or institution related issues make it complex. “Student departure poses an ill-structured problem,” and one solution does not exists nor is it enough to solve the issues at hand (Braxton et al., 2007, p. 393). Students who chose to not re-enroll and without data to better understand this from a qualitative or quantitative assessment, institutions may find it difficult to study, form a response and operationalize a systematic action plan. However, this type of enrollment erosion (known as attrition) of students is precisely a reason to focus on student persistence and effectively maintain continued progress.

**Attrition.** There is an insufficient definition of student departure and it is common for institutions to label such a phenomena as simply “dropouts” (Tinto, 1975). As a result, institutions will use a “one size fits all” mentality and put into practice policy or plan of action to address the issue of simply keeping students via retention initiatives and not delving deeper into the reasons students left in the first place. Swail (2003) notes:

> To implement retention programs, senior campus leadership must play two important roles: monitoring institutional progress toward clearly stated campus retention goals, and coordination and leading all stake holders—students, parents, other campus administration, faculty, and staff—toward stated goals (Swail, Redd & Perna, 2003).
The foundational causes of student departure are not the same for the varying forms of departure, and administrators may not know how to couple a system of support with a specific student or population (Tinto, 1975). With all the efforts from researchers, administrators, and growing retention-focused businesses, there has been little change in student departure rates over the last decade (National Center for Education Statistics, 2005). Furthermore, the term “dropout” may suggest the act of “dropping out” is preventable. However, not all forms of student departure can or should be prevented (Tinto, 1993). The term dropout is most helpful if it is better described as “voluntary” and “involuntary”. The clear distinction between both forms of departure is when a student chooses a voluntary leave for a variety of reasons such as pursuit of college has changed or has become unclear, as opposed to involuntary reasons such as formal dismissal by the institution due to academic performance or violation of the student code of conduct (Woodley, 2004). This type of withdrawal from an institution accounts for 85% of attrition (Fralick, 1993). Perhaps, a third descriptor of student departure could be labeled as “unavoidable”. For example, this occurs mostly within a semester when a student encounters unavoidable challenges such as life threatening illness, family issues or other personal crisis (Woodley, 2004). Although the student departure literature is best categorized as voluntary or involuntary, the student who makes either decision is typically shown between academic years or sudden departures within a semester. However, it is important to explore the phenomena of institutional attrition after one semester of attendance.

In order to understand attrition, two types exist: negative and positive. Naturally, attrition occurs at an institution by which students, who successfully complete required course work, graduate and depart the institution. The concept of positive attrition was coined based on a study of 1,000 students at Cuyamaca College in 1990 (Fralick, 1993). Fralick (1993) describes this
study as showing non-returning students who achieved their goals through successful completion of their course work in the semester in which they enrolled. However, “negative attrition” included students who stated that they had not been successful in making progress toward achieving their goals or had not completed their classes” (Fralick, p. 30). Colleges and universities typically share a desired outcome of a student being successful since this success has a perceived representation of the institution from which the degree is conferred. This is typically demonstrated though an institutions mission, vision, and goals, which pledge that students who graduate will acquire the knowledge and skills that prepare them for careers and/or advanced scholarly work. For example, the goals of UNC include preparing a “well educated citizenry whose understanding of issues enables them to be contributing members of a rapidly changing, technologically advanced, society” (http://www.UNCo.edu/pres/mission.html). UNC, like many universities, expects students to persist through graduation in order to take the next step that life has to offer.

**Student departure defined.** Student departure incorporates both forms of attrition. Because of lower student retention, attrition occurs forcing a reduction in the number of students attending the institution (Braxton, Brier, & Steele, 2007). Several descriptors are used to identify students who leave an institution and are commonly labeled as dropout and stop-out. A dropout can be defined as “any student who leaves the college during any semester, or completes a semester but fails to register for the following semester without having graduated” (Glynn, Sauer, & Miller, 2003, p. 50). Stop-outs are students “who after leaving college, re-enter at a later time to complete their degrees” (Tinto, 1993, pp. 25-26).

**Types of departure.** Braxton (2006) offers the perspective that student departure is influenced by a student’s evaluation of the cost and benefits of staying in college and becoming
engaged in the activities offered by the institution. In other words, if a student perceives the cost of staying at the institution or becoming engaged in a curricular or co-curricular activity outweighs the return on the investment, the decision to stay at the institution will be to leave (Braxton, 2006). Tinto (1993) provides additional specificity of departure and branches it into two segments: “institutional departures”, a student leaving a particular institution and “system departures”, a student leaving the system of higher education (Tinto, 1993). This is an important factor to distinguish. Reporting for the state consists of categories tracking students who transfer to other institutions or simply do not complete their degree. A student’s first year is a time of transition, and for many, fraught with academic and social growing pains. At times, these growing pains lead to alarming departure rates, which include one in four students who depart after the first year of college (Braxton et al., 2007). Moreover, “approximately one-half of students who enter higher education do not earn a bachelor’s degree after five years” (Keup, 2005, p. 62). Researchers looked at the ACT assessment student profile questionnaire that was done over a six-year period. What they found was students who departed were more likely male from underrepresented minority groups with lower GPAs and have accumulated a higher loan amount after one year (DesJardins, Ahlberg, & McCall, 2002). Students in this study more likely to be retained were Caucasian females with higher GPAs and who received less financial aid. These students also indicated a higher commitment to the institution in which they enrolled as it was determined a top choice in their college selection process (DesJardins, Ahlberg, & McCall 2002).

As a point of reference, the state of Colorado tracks students who transfer from one State institution to another within the state and apply this to the overall college completion rate for the State. In an initiative by the former Governor of Colorado, Bill Ritter, those who began college
and never completed are tracked. As such, data as of 2010 show the state of Colorado has approximately 600,000 students that have completed some level of course work but have not completed sufficient course work to satisfy their degree requirements (Goldberg, 2010). Many of these students fall into the category of departure, but more alarming is they are system departures and the odds of completion of their degree are very slim.

**Student departure and the economic consideration.** As institutions think about the importance of student departure, revenue for the college/university is also an important consideration. Based on the lens in which you view higher education may determine the level of importance the economic consideration is rated. From a business operating perspective, the issue of losing students should be very important and regardless of the role you play at a college or university, the bottom line does come into play. Such an example is demonstrated in the cost to recruit a student versus the cost of retaining a student. According to the literature, the cost of recruiting one new student estimates the cost of retaining 3-5 already enrolled students (Astin, 1993). Student learning and development is tantamount to the student experience and the role of colleges and universities; however, an appropriate business model needs to be in place to be sure the institution is able to maintain its operating expenses. Although this is one of many important aspect for the operation of the institution, it is important to keep in mind what is in the best interest of the student; balanced with the operational needs of the institution.

As institution lose students, a loss in tuition and fees are significant revenue losses. With state support for higher education declining, UNC depends on 14% of financial support from the state (DOE, 2012). This is very different for private (not for profit) institutions in which 35% of revenue is derived from tuition, fees, and 87% for private-for-profits (Integrated Postsecondary Education Data System, IPEDS, 2010). As an example of comparison, UNC’s net tuition and
fees account for $79,990,155 (Annual Budget & Finance Report, 2011). This equates to 55.03% of UNC’s operating revenues (Annual Office of Budget & Finance, 2011). There may be differences between UNC’s reliance on tuition and fees and national averages may include other funding such as research grants and varying levels of in-state appropriations. The state of Colorado in which UNC resides is ranked at the bottom (49th) in per student funding for higher education (Higher Education Strategic Planning Commission, 2011). Consequently, the argument stands firm that institutions such as UNC are extremely affected by student loss than its peers in other states. Former executive director of the Higher Education Commission reports the economic value of a college education:

The importance of a higher education degree cannot be overstated. According to recent figures published by the Higher Education Strategic Planning Committee, having an associate’s degree increases the wages of a high school graduate by 36 percent over a lifetime, while obtaining a bachelor’s degree almost doubles the income of a high school graduate (Goldberg, 2010, para. 6).

**Student departure theoretical models.** Student departure lends itself to a variety of ways scholars have examined the topic. Four models emerge as the most researched and often operationalized. The models comprise the Student Attrition Model (SAM) (Bean, 1982), the Student Integration Model (SIM) (Tinto, 1975), the Theory of Involvement (Astin, 1975) and the Geometric Model of Student Persistence and Achievement (GMSPA) (Swail, 2003). The likelihood a student will depart an institution decreases relative to the increase in her/his social and academic integration. When the awareness of a student’s sense of belonging increases, the less likely s/he is to depart. This concept is central to Tinto’s 1975 model (Glynn et al., 2003). Some scholars share a different perspective on Tinto’s Model and express the exclusion of
anthropological concepts (Braxton, 2000) and ambiguities of social integration (Braxton, 2000) in the 1975 study. Consequently, Tinto may have introduced a threat to the validity of his study (Bean, 1985; Glynn et al., 2003). However, Bean (1982) accounted for external factors in his study (Glynn et al., 2003). Some of the external factors identified by Bean (1982) included family approval, job opportunities post-graduation, outside friends, and finances. Involvement in the campus community originated by Astin (1975) and deemed to be critical to integration, and in turn, persistence in college. Glynn et al. (2003) tied these theories together stating, “Persistence is a function (direct or indirect) of background variables, goal commitment, institutional commitment, academic and social integration (Tinto, 1975), external factors (Bean, 1982), involvement (Astin, 1975) and financial factors (Wetzel, O’Toole, & Peterson, 1999). Explanatory variables should include measures of all of these” (Glynn, 2003). Roughly about the same time, Glynn (2003) summarized the most seasoned, at the time, of the varying theories. Swail (2003) developed a model that incorporated factors with many of the same aspects, but infused the role the institution plays as a key aspect to the issue of student persistence. The three factors he attributed to student persistence and departure are categorized as Cognitive, Social, and Institutional Factors all within the context of the overall student experience. Swail (2003) characterized each as follows: Cognitive factors represent the educational background provided by the student’s previous education and are important due to the relationship to the student’s ability to comprehend and complete the academic aspects of the college curriculum. Social Factors signify parental and peer support, development or existence of career goals, educational legacy, and the ability to cope in social situations. Swail (2003) suggests a student’s social opportunities and underpinning intersect on her or his cognitive development. A student who is exposed to a culturally and educationally rich environment will develop skills critical to
postsecondary, career and personal success. Whereas students hailing from less supportive environments will experience deficiencies in their self-esteem and efficacy. Lastly, institutional factors symbolize the biggest social change for students. Specifically, Swail (2003) states intentional and unintentional practices and culture of the institution play a role in a student’s retention or departure outcome. Swail (2003) cites the following examples “faculty teaching ability, academic support programming, financial aid, student services, recruitment and admissions, academic services, and curriculum and instruction.

Tying these four seminal theories together, each theory encompass the more common characteristics such as first generation status, race/ethnicity, sex and socio economic status as factors that intersect the overwhelming and seemingly wide-ranging umbrella of elements that affect student retention, persistence and departure.

**Modern Approaches to the Retention, Persistence and Attrition Conundrum**

Fralick (1993) suggests practices for dealing with students who may leave the institution for any number of reasons. Dissatisfied students certainly are more apt to depart an institution. To improve satisfaction with the institution, the institution should expose what it does well. Doing this will help the institution attract students who have a better fit and they may feel more connected with the institution. As an example, for part-time students, colleges should develop programs with classes that meet at times that are more convenient for students who are pursuing school peripherally to their jobs and families. Fralick (1993) also suggested that career and academic planning would be a way to support minority students in visualizing and accomplishing their goals. For students who ultimately decide to exit, many institutions have withdrawal policies that allow students to exit without penalty to their academic records. Such policies are a reflection of an acknowledgement that not all students can or should persist every
semester, and facilitating an easier transition back to the university may lead to an increase in returning students (Woosley, 2003-2004). Furthermore, the literature is plentiful with universal reasons such as family and medical issues that force a student to depart. Although the reasons for departure may be valid and necessary at that time for the student, state institutions are scrutinized and accountability has risen based on metrics of attrition, persistence and retention. Unfortunately, those outside the higher education environment do not understand the complex life of a student and view a student “stopping out” as failure of the higher education system. The paradigm needs to change in higher education and stopping out should not be viewed as failure just because a student has to take some time out for personal or other obligatory reasons.

**Programmatic prevention and intervention.** The first-year college transition can be difficult. In a study by DeBerard et al. (2004), academic achievement was positively correlated with social support. If social support affects academic performance, and academic performance affects persistence, then student retention is impacted by the ability for students to negotiate the first year socially. In lieu of addressing low persistence and graduation rates, and the relationship between these rates and first-year adjustment, many colleges have developed programs targeting college transition. Such adjustment programs include “extended orientation programs, peer advising and mentoring networks, campus-sponsored ‘Welcome’ activities, workshops and tutorials (focused on both academic and personal skills), additional residential life programming, as well as new pedagogics and courses” (Keup, 2005, p. 62). Many institutions have implemented learning communities, which are designed to foster encouragement, support, and intellectual gain (Tinto, 2008). Students are also more likely to succeed at institutions with an emphasis on advising (Tinto, 1999). In addition to advising, programming such as: first-year adjustment seminars, academic success centers, tutoring, and
counseling comprise a selection of an ever-growing body of retention-oriented service (Kim et al., 2010).

**Faculty integration.** Beyond the programmatic features of the institution, faculty plays an important role in student integration, support, and success. Interaction between faculty and students aids in a nurturing student environment (Tinto, 1993). Various initiatives have come to fruition in an effort to promote and create faculty and student interaction. Bourassa & Kruger (2001) identify three programs that exemplify such endeavors; 1) Faculty-in-Residence programs; 2) First-Year Experience programs; and 3) Living-Learning communities. First, Faculty-in-Residence programs help facilitate an environment where academic experiences can be synthesized by out-of-class experiences by coupling faculty and students in activities (e.g. literature discussion). Second, the First-Year Experience (FYE) program incorporates faculty into the orientation process and allows curriculum to focus on the issues students face especially during their transitional year from high school to college. FYE generally involves faculty in identifying and working with at-risk students. Finally, living-learning Communities are freshman interest groups in which faculty and students can collaborate on in-class and out-of-class components that complement each other. Colwell (2006) describes orientation and first-year-experience programs as perfect opportunities for faculty and student collaboration. Colwell (2006) gives the example of this comprehensive learning experience, by using a reading assignment. This assignment gave all incoming freshmen the same book to read at orientation. Discussion of this book is facilitated in-class and out-of-class as a part of the first-year-experience. Therefore, illuminated in the aforementioned examples of faculty and student connectedness, institutions may be well served to find ways to make these interactions “structured and regularized” (Tinto, 1982, p.13).
Early intervention. Research by Seidman (2005) illuminates what is known as the Seidman’s Retention Formula – \( RET=E ID+ (E+I+C) IV \) where Retention = Early identification + (Early+ Intensive+ Continuous) Intervention. Seidman brings to light the necessary actions that require attention in order to produce greater outcomes related to keeping students and reducing departure:

1. **Retention**: Simply defined as student attainment of academic or personal goals (Seidman, 2005).

2. **Early Identification**: Identifying students, at the earliest possible time, as at risk (Seidman, 2005).

3. **Early Intervention**: Implement strong intervention at earliest time possible (Seidman, 2005).

4. **Intensive Intervention**: Intervention must be intense or strong enough to effect the desired change (Seidman, 2005.)

5. **Continuous Intervention**: Intervention should continue until the change is stimulated (Seidman, 2005).

The result of having a model such as this accentuates the need for institutions to be preventative and reactionary as early as possible. For an institution to know the needs (academically or socially) of students before it is too late means an opportunity to save a student from departing the institution unnecessarily. Depending on the institution, beginning an intervention program prior to enrollment may provide the necessary preparatory interventions that set the student up for success.

Providing this type of early identification and intervention throughout a student’s precollege and college career enhances the chances of student success in meeting
academic and personal goals. And, that is what the educational process is all about.

Enabling a student to accomplish individual goals, to compete in the global economy, and seek out continuing education as necessary without the fear of failure (Seidman, 2005, p. 24).

**Salient Variables and Contributing Factors**

Background characteristics play a role in student persistence. Depending on the researcher and theorist, some will agree that persistence is affected by the following characteristics: age, sex, and ethnicity (Allen & Nelson, 1989; Krebs & Liberty, 1971; Lucas & Meltesen, 1993; McClain & Sartwell, 1983). High school GPA and standardized test scores are common predictors of student success and most often used as measurements for entry into college. Robbins (2006) notes researchers and practitioners often debate these measurements as it is not always a measurement of a successful student. However, background and individual characteristics as noted above and including socioeconomic status are just a few of the components that may affect a student’s expectations and commitments in pursuing and pursuing higher education.

Further research indicates family relationships and support, characteristics of the individual, prior education to college, and expectations are strong attributes tied to student persistence (Tinto, 1975). Key aspects that form the foundation to student persistence are the individuals’ family and personal characteristics. In numerous studies, students indicate family responsibilities sometimes interfere with schoolwork. In addition, the percent of students expecting to work at least part-time in college has increased nearly 10 percentage points over the past 10 years (Astin, Oseguera, Sax, & Korn, 2002; Keup & Stolzenberg, 2004, as cited in Keup, 2005). More often than not, financial resources often influence a student’s decision to persist. If
a student no longer sees a benefit of his or her education, reconsideration of such an investment of time, money and commitment outweighs the decision to obtain an education.

Student persistence is more likely to occur when academic, social and personal support is present. Furthermore, institutions of higher education naturally afford resources and services for students that explains/predicts these attributes. In addition, social integration, perceived social support, academic engagement, financial assistance, institutional selectivity, and size of the institution all create an influence on the student’s ability or decision to persist (Robbins, 2006). These variables are congruent with the models posited by Astin, Bean, Tinto and Swail.

**Student involvement and engagement.** Involvement and engagement in the campus community increases the likelihood of student success and persistence (Astin, 1984; Pascarella & Terenzini, 1980). The impact of being involved in the campus community and the relationship to persistence is much higher in first-year students and their departure rates (Robbins, 2006; Woosley, 2003). The transition of first-year students is often difficult and in turn, continuing students are found to be more integrated in their campus community. It is typical for institutions to engage their students in programmatic events during the first six weeks of a student’s life at a university. Involvement with faculty and other students in and out of the classroom leads and promotes greater learning and connectedness to the institution. Support from faculty, staff of the institution and friends are directly related to student persistence (Cope, 1969; Cope & Hewitt, 1969; Flacks, 1963; Jones, 1962; as cited in Tinto, 1975). However, Spady (1971) advanced the theory of the relationship between social support and persistence by positing it is the perceived friendship support that affects a student’s decision to persist (Tinto, 1975). Using multivariate discriminate analysis, Hanson and Taylor (1970) learned that academically successful students who exit a university prior to graduation, score significantly lower on measures of social
relationships than do either persisters or involuntary academic dismissals (Tinto, 1975). However, departure may be due to excessive social interactions, as well as too little (Lavin, 1965; O’shea, 1969; Phillips, 1966; Spady, 1971; Walace, 1966, as cited in Tinto, 1975).

Although institutions work feverishly toward keeping the students they recruit, the answers on what keeps students may not always be easy to address. Many factors are at play when considering student retention, departure rates, or simply, what keeps students persisting. As a result, it takes “a village” to manage the complexity of the issue.

**Businesses and Organizational Management Insight**

A prized and cherished value in the business and corporate world is customer service. The outcome of having exceptional customer service translates to a direct impact to the bottom line (Boyd, 2012). Companies spend time, resources and a considerable amount of effort in training their staffs in order for them to achieve and sustain customer loyalty (Inghilleri & Solomon, 2010). Moreover, time is spent training staff to effectively problem-solve and understand the concept of “anticipatory service” (preventing poor service). For example, the Ritz-Carlton Hotel Co., known for its exceptional service, empowers every employee, at all levels, and offers them $2,000 to spend immediately in order to solve a customer’s concern (Inghilleri & Solomon, 2010). The trust and commitment to service delivery is evident through this practice and has proven to be helpful to the employees and their work environment.

Although increased attention has gone into attracting a customer-base, retaining customers through the type of service that produces loyalty has become more significant over the last decade. Defined in a multitude of ways, customer service is understood in the following manner: providing a service or product as promised; treating others as you would like to be treated; the ability to supply the needs and wants of the customer; the process of taking care of
the customer in a way that is positive; contact between a customer and a company, resulting in
negative or positive perception; the ability to provide competitive advantage while adding value
to the customer; creating a value added service that includes attitude, knowledge, support and
quality in a timely manner; and finally, a proactive attitude that demonstrates care (Customer
Service Manager, 2012).

The concept of customer service has evolved over the past two decades. Although
technology has paved a way of limiting the interaction between customer and service provider,
the demand by the customer for quicker and faster service has created this culture. Yet, our use
or over-use of technology has seemed to slip into a source of frustration such as listening to a
computer generated voice giving a multitude of options rather than talking to a live person. The
days of the gas attendant who pumped gas and washed windows have surpassed the current time-
or has it? The personal attention and friendly conversation with the attendant is mostly
desirable; yet, we want it at “microwave” speed. Have we potentially confused our culture of
what we want and how we want it? This is truly possible; however, the literature from a
business perspective demonstrates a need and desire by customers to have quality service at all
levels.

Social customer service. Today, the customer has commenced a new battleground as it
relates to customer service. The climate for business is not only about value of the product, but
also how fast and how well a business responds to the customer. The use of social media and
technology of the 21st century has become a profound and fascinating driver for innovating
customer support and attitude toward the business (Aberdeen, 2012). Most of these drivers stem
from the customer demand for better service, competitive pressure and loyalty of the customer.
Many businesses measure time and effort costs it takes to service a customer; however, the
customers overall engagement with the business is equally as critical. Such practices of measuring satisfaction have evolved to measuring the overall sentiment of the customer. Much of this assessment is highlighted using technology such as social networking sites, Customer Relationship Management (CRM) software or via “voice of the customer” panels and surveys. This practice in the private sector is referred to as Enterprise Feedback Management. Feedback received by private sector organizations is typically used as an opportunity not only to measure how the business is performing, but expended as a force to grow loyalty from existing customers, facilitate innovation, and influence business decisions for the future of the company (VOVICI, 2012).

Voluminous literature exists related to customer service/customer retention in the private sector. Copious research on why student departure behavior exists in higher education and the work of Astin, Bean, Tinto and Swail are well regarded and most influential. The ensuing literature review will provide insight into customer service in the higher education environment and the contribution it plays within this context.

**Customer Service in Higher Education**

Similar to the business sector, practices that monitor the customer experience and satisfaction outcomes are critical to keeping customers from migrating to the competition. Relatedly, higher education can explore the student experience and satisfaction results in order to influence the student departure phenomena. At times, students encounter negative experiences related to service, but institutions may not be aware of the issues and thus, unable to “fix” the problems. For colleges and universities, reoccurring issues of bad experiences and poor student satisfaction need to re-emerge as a matter of tremendous importance. Colleges and universities are starting to see higher education in business-like realities. Tuition revenue depends on selling
the college (recruitment) to its customers (students and parents). Sales (enrollment) are made based on the college's brand (image), product (courses, programs, and degrees), and creating a quality experience in order to sustain a healthy customer base for repeat business (student engagement and retention). These elements are one of many measurement factors, and in essence, have an effect on institutional success. Practices that monitor customer satisfaction outcomes are critical to customer retention. Relatedly, from this researcher's observation, higher education needs to focus on the issues of student satisfaction in order to influence student retention or decrease student departure. At times, students encounter negative experiences related to service, but institutions may not be aware of the issues and thus, unable to “fix” the problems or “make it right” for the student. For colleges and universities, reoccurring issues of poor student satisfaction due to low levels of service delivery need to re-emerge as a matter of importance. Nguyen and Leblanc (2001) regard two factors, image and reputation, as having an impact on a student's decision to stay for advanced studies. With this in mind, institutions of higher education may not know the type of service students receive from areas of campus that deal directly with service-related issues. Consequently, the image and reputation of an institution may be impacted due to paltry levels of customer service, which then impact the experience of the student. Regardless of a positive or negative experience, a related impression is made on students about the institution. Kennedy (1977) posits two principal components (functional and emotional) that may explain/predict the symptom of a good or bad impression of an organization. The functional component is based on tangible characteristics of the organization while the emotional component is correlated with psychological dimensions that are revealed through feelings and attitudes toward the organization. The origin of these feelings generally stems from individual experiences, and as a result, these experiences create perceptions in the mind of the
customer. As organizations work toward enhancing the customer service experience, Nguyen and LeBlanc (2001) believe based on the experience, we create a mental sensory process resulting in a positive or negative image of the organization analogous to the experience received.

An institution’s reputation also serves as an “important and intangible resource that significantly contributes to an organization’s performance and even to its survival” (Nguyen and LeBlanc, 2001, p. 304). According to Herbig and Milewics (1993), the reputation of an organization “serves as the congruence between action and message” (p. 304) and is formed through its credible actions. Consequently, the actions of an organization may create a bad impression and effect the reputation simply due to an organization’s actions. According to Nguyen and LeBlanc (2001), image and reputation both serve as reliable cues that signal customer satisfaction. Furthermore, Dick and Basu (1994) believe that image and reputation influence repeat patronage.

More than ever, organizations are seeing the need to retain their customer base in order to survive and prosper (Hernon, Nitecki, & Altman, 1999). However, this adage is dependent on satisfaction with the quality of service the customer receives. Companies that place an emphasis on increasing customer loyalty do so through creating sound operations and quality products. The importance of customer service to the business sector was driven by increased competition and the need to adopt a market orientation strategy so that product offerings were distinguished from the products of their competitors (Deshields, Kara & Kaynak, 2005). Businesses were driven to understand their markets in ways that provided better intelligence so that the product or service offering significantly enhanced customer satisfaction. However, both philosophy and organizational behavior are key aspects to managing a customer service culture and having one
or the other is incomplete. As such, customer service fosters a critical mix for both product and service and customers have advanced their interest in both.

**Summary of Literature Review**

Over several decades, very little has changed in student departure behavior. From a national perspective, keeping students enrolled have essentially plateaued. Because there are so many factors outside of an institution’s control, the reasons why students depart continue to be more complex. Factors such as academic preparation, socioeconomic status, family situations, or external factors such as the number of hours a student must work, support, or lack of, from family for being in college further complicates the matter. Sometimes friends and close confidants play a role in a student’s decision to leave or persist. Moreover, a student will most likely choose an institution based on a major; however, the decision to change a major may also force them to leave the institution in which they are currently enrolled. Institutions are consistently working to predict and use analytics that will offer further intelligence on students who persist or those that do not. It is also important to note, there is no one person or office that is responsible for keeping students enrolled. Although some institutions have a chief retention officer on campus in order to stream line activities, the issue is so much more complex and it really takes a collective effort to manage the multitude of factors that are related and interconnected to keeping students enrolled.

In order to realize the vision of keeping students from departing- especially under the circumstances of greater complexity and a changing university environment, institutions need to act as a system rather than a collection of multiple or separate units. As a result, institutions will realize efficiencies in their service to students and can share a common purpose if it functions as one system. This is the essence of system thinking. As the university functions with a systemic
view, its components are defined in large part by their relationships to one another; and change is more cyclical than linear. Relatedly, a university-wide approach to reducing the number of students who depart reinforces a university-centered approach rather than separate units working toward the goal alone or at times competing systems. The value of a systems thinking approach and relating to a new way of operating allows the institution the ability to achieve its goals and sustain consistent performance over time (Hall, Swart, & Duncan, 2012).

College and University campuses will continue to find ways to keep students and assess why students depart. Campuses will especially do this during times when institutions are facing unstable enrollments, changing demographics and shrinking financial resources. As such, for the purpose of this research, enrollment management bears particular responsibility toward creating a positive student experience from beginning of the courting cycle to a student’s graduation. The literature contributes to the notion that the overall student experience leads to greater satisfaction. Therefore, it is possible the less a student is satisfied the greater the probability of departure from the institution. Now, more than ever, is it time to take stock of the state of our knowledge of why students stay and why the leave. It is often useful to take a couple of steps back to review a field of knowledge and it is particularly important now to re-evaluate metrics of student satisfaction. However, this can only be effective if the institution identifies what the student experience is like. As part of a growing and sophisticated use of assessing performance, many of the best practices gather intelligence through surveys or customer feedback forums. The aspiration for organizations is to learn more and understand the satisfaction or dissatisfaction of students. Subsequently, this study assessed variables such as: customer service experience, the student’s commitment to the institution, and overall experience with the institution.
Chapter 3: Research Design

The review of the literature has presented key facets to student departure and the overall umbrella of student retention. This, in combination with the current higher education environment and business/management perspectives give the reader context to traditional influences influencing student departure and offers insight to business/management practices that also deal with this particular issue, customer departure. Viewed solely as the purview of business and corporate culture to retain customers, higher education has not been as explicit with its efforts related to the student departure phenomena. The purpose of this research was to examine the extent to which institutional commitment, overall satisfaction, and customer service experience of first year students, living on campus, predict student departure at the University of Northern Colorado (UNC). For this study, student departure was measured by student enrollment status at time of official reporting known as census date. In order to better predict student departure, the researcher posed the following research questions, null and statistical hypothesis:

**Hypothesis.** This study hypothesized a student’s perception of their customer service experience, commitment to the institution, and overall satisfaction of the institution explains/predicts student departure. Through quantitative research design, this study asked the following research questions:

**RQ1:** Do student perceptions of their customer service experience, commitment to the institution, and overall satisfaction of the institution, as combined variables, predict student departure (binary) at the University of Northern Colorado?

**H01:** Perceptions of customer service experience, commitment to the institution and overall satisfaction do not predict student departure.
**H1**: Perceptions of customer service experience, commitment to the institution and overall satisfaction do predict student departure.

**RQ2**: Do student perceptions of their customer service experience predict student departure (binary) at the University of Northern Colorado?

- **H02**: Perceptions of customer service experience do not predict student departure.
- **H12**: Perceptions of customer service experience do predict student departure.

**RQ3**: Do student expressions of commitment to the institution predict student departure (binary) at the University of Northern Colorado?

- **H03**: Expressions of commitment to the institution do not predict student departure.
- **H13**: Expressions of commitment to the institution do predict student departure.

**RQ4**: Do student expressions of overall satisfaction of the institution predict student departure (binary) at the University of Northern Colorado?

- **H04**: Expressions of overall satisfaction of the institution do not predict student departure.
- **H14**: Expressions of overall satisfaction of the institution do predict student departure.

**RQ5**: Do student perceptions of their customer service experience and expressions of commitment to the institution predict student departure (binary) at the University of Northern Colorado?

- **H05**: Perceptions of customer service experience and expressions of commitment to the institution do not predict student departure.
- **H15**: Perceptions of customer service experience and expressions of commitment...
to the institution do predict student departure.

**RQ6**: Do student perceptions of their customer service experience and expression of overall satisfaction of the institution predict student departure (binary) at the University of Northern Colorado?

- **H₀₆**: Perceptions of their customer service experience and expressions of overall satisfaction to the institution do not predict student departure.
- **H₁₆**: Perceptions of their customer service experience and expressions of overall satisfaction to the institution do predict student departure.

**RQ7**: Do student expressions of their commitment to the institution and overall satisfaction of the institution predict student departure (binary) at the University of Northern Colorado?

- **H₀₇**: Expressions of their commitment to the institution and of overall satisfaction of the institution do not predict student departure.
- **H₁₇**: Expressions of their commitment to the institution and of overall satisfaction of the institution do predict student departure.

**Research Design:**

As with all research studies, specific types of investigation call for particular approaches such as testing a theory, understanding predictions of outcomes or identifying factors that influence an outcome (Creswell, 2009). Accordingly, this non-experimental study used a quantitative, non-parametric, inferential statistical research design. Non-experimental research investigates events as they truly are with no effort to adjust, modify, or change the subject of the research throughout the process (Muijus, 2004). Since the researcher is not introducing different treatments or showing causality as experimental research would, non-experimental studies are
not always viewed as the most conclusive (Johnson, 2001). Moreover, the research questions were designed to examine relationship of the variables and not prove causation. Although there are limitations to a non-experimental study, non-experimental educational research has grown, since many issues of interest (such as public funding of higher education, student dropout rates, mental health issues) are worth further investigation (Johnson, 2001).

The intent of this study was to better explain/predict student departure as it relates to the following independent variables: **institutional commitment, overall satisfaction, and customer service experience of first year students**. Many research designs and statistical approaches exist that allow the researcher to better understand and interpret data (Light, Singer, & Willett, 1990). This study addressed the research questions and hypothesis using a previously published instrument known as MapWorks® First Year Transition Survey. Using established survey research allowed the researcher to collect data by smaller groups of individuals to generate inferences about larger groups, which is often cost prohibitive (Holten & Bunett, 1997). The focus of this survey was to measure opinion, behaviors, and perceptions while tapping into the subjective viewpoints about the students’ experience. Administered properly, survey research affords anonymity, reduces cost (if delivered via web) and decreases interviewer bias (Forza, 2002).

**Population and sampling.** The study utilized a secondary data set comprised of undergraduate, degree-seeking, first year students officially enrolled at UNC for the fall 2012 academic year. The sampling method for the study consisted of a convenience sample. This sampling method is most commonly conducted within organizations where a targeted population already exists (Fricker & Schonlau, 2002). Using a convenience sample, the researcher was able to draw upon previously collected data and utilize the sample population. For this study, these
data are easily accessible and participants of the study were willing to participate in the study. This sampling method was appropriate for this study since the researcher sought to explain/predict student departure at the University of Northern Colorado and the study focused on a targeted population of first year students living on campus.

The University of Northern Colorado is located in the western part of the United States and categorized as a doctoral granting, mid-sized institution. The University has an enrollment of approximately 12,000 students with roughly 10,000 of the students classified as undergraduates and approximately 2,300 are first year-first time students and roughly 2,000 live on campus. The site and population were selected based on the researcher’s professional goal to better understand the salient issues of student retention and departure currently facing the institution. Secondly, the researcher was a first year student on the campus 25 years ago and is intrigued that similar outcomes related to retention and departure of students at the institution continue to exist. Furthermore, as a full-time professional and administrator on the campus, the researcher expects to use the results of this study to inform administrative practices, operational enhancements, and programmatic development. Since the population and sample of this study are broad; yet, targeted precisely enough, the overall generalizability of the research intends to inform practices on the UNC campus and other institutions that possess similar enrollment demographics and institutional characteristics. Since this study served as practitioner-based research, support of this study was afforded with endorsement from the President and Provost of the institution. The sample of students were officially enrolled in the fall semester of 2013 and expected to return to the institution in fall of 2014. For this particular study, the data from the sample was previously collected. The researcher did not examine the data from a researcher, administrator or practitioner perspective. The total number of students that participated in the
survey was approximately 2,094. In addition, incomplete surveys were eliminated along with surveys of non-first year students who participated in the survey. The researcher conducted a preliminary step of auditing the data such as observing the quality of the data, identifying any missing data, and determining if there is variability within the data set.

**Enrollment profile of study site.** Approximately 39% of the first-time undergraduate student body is first-generation and 33% low income. 61% are female and 39% male. In addition, 30% identify as students of color and 98% of first year students designated as full-time status and take an average load of 14.1 credit hours. Since the University is considered a residential campus, approximately 85% of first year students live in on-campus housing. The top five academic programs of interest are business administration, biology, psychology, interdisciplinary studies, and criminal justice. Students represent all 50 states; however, the top five states students represent other than Colorado: California, Texas, Hawaii, Wyoming, and Arizona. The academic profile of first-time students indicate an average GPA of 3.3, ACT average composite score of 23 or SAT average combined score of 1075 (Enrollment Profile and Tuition Forecast, 2012).

**Data collection: Instrument**

In order to determine the extent to which institutional commitment, overall satisfaction, and customer service experience of first year students, predict student departure at UNC, the MapWorks® First Year Transition Survey instrument was administered. Used a secondary data source, the survey instrument has been used for the past 7 years on the UNC campus and is associated with other benchmarking and assessment practices for the UNC campus. Secondary data is characterized as data gathered by, and for, others from a particular setting; however, not necessarily for the research question at hand (Cowton, 1998). In addition to the survey,
enrollment data was extracted from the UNC Student Information System, which allowed the researcher to examine actual persistence rates (departure or retention) of the cohort being studied. Lastly, the researcher included in the data set other defining characteristics such as socio economic status, race/ethnicity and gender of the survey participants.

**MapWorks® first year transition survey.** Each year, since 2006, UNC administers the MapWorks® First Year Transition Survey. This comprehensive student success and retention platform is grounded in college student development theory and adapted from an instrument called Making Achievement Possible (MAP). It was first developed and operationalized by Ball State University more than 22 years ago. Through a joint effort, Ball State University combined its survey work with a data collection service provider, Educational Benchmarking Incorporated (EBI), to better leverage the survey as a national instrument beginning in 2005 (Woosley & Jones, 2011). As a result, the partnership joined rich data from Ball State University and student development theory in order to strengthen the use and predictive power of the instrument. The combination of long terms assessment on the Ball State Campus, benchmarking expertise from EBI, and many years of theoretical perspectives enabled the tool to be effective in providing users to work with students directly in order to influence student success on an individual level.

Through a series of algorithms, MapWorks® First Year Transition Survey is used as an early alert tool to identify students who may be at risk of departing the institution or struggling academically (EBI MapWorks, 2012). The survey consists of approximately 90 items (not including branching or institutional specific questions) and is administered to all first year students and non-first year students living on campus. In addition to the 90 questions, institutions have the opportunity to add Institution Specific Questions (ISQ) related to the campus. The University of Northern Colorado added ten ISQs. The survey takes into account
pre-college academic and family demographic information and incorporates self-reported data by
the student that identifies the likelihood of risk a student has related to social and academic
engagement, financial management of their education and transition to a new environment.
Overall, the instrument measures perceptions, behaviors and expectations of first-year students
and groups survey questions into three types: categorical, numerical and scaled. The average
response rate for UNC has been 85%. The survey instrument is web-based and used by many
institutions of higher education. Students were given their own unique survey link via their UNC
student “bear email” to complete the survey and received an initial invitation and two reminder
email. Housing and Residence Life staff (the office that administers the survey) placed
advertisement on residence hall floors and in lobbies and gave verbal reminders during the
survey administration timeframe. Since MapWorks® First Year Transition Survey is
administered at the fourth-sixth week of the semester; UNC was able to benefit from advanced
knowledge about the student's experiences and perceptions and the potential likelihood of their
departure among other items measured through the use of this survey. Since the focus of this
study was to explore the extent to which institutional commitment, overall satisfaction, and
customer service experience predict departure; only these groupings were used. This process
reduced the instrument from 90 items to 9. Each question was measured using a seven – point
Likert scale. Depending on the question, the scale ranged from 1 “not at all”, 4 “moderately”,
and 7 “extremely” or 1 “very poor”, 4 “good”, and 7 “Exceptional”. The entire MapWorks®
First Year Transition Survey is appended.
Table 5

*Items for the MapWorks® First Year Transition Survey (full instrument available in Appendix A)*

**Commitment to the Institution-Standard Question**

**Question**

Q002. Level of Commitment - To what degree are you committed to completing a:
   - Degree/certificate/licensure at this institution
Q004. Intent to Return - To what degree do you intend to come back to this institution for the:
   - Spring term
Q005. Intent to Return - To what degree do you intend to come back to this institution for the:
   - Next academic year

**Satisfaction with Institution-Standard Question**

**Question**

Q159. Overall Evaluation of the Institution - Overall, to what degree: Would you choose this institution again if you had it to do over
Q160. Overall Evaluation of the Institution - Overall, to what degree: Would you recommend this institution to someone who wants to attend college
Q161. Overall, please rate your experience at this institution:

**Customer Service Experience- Institutional Specific Question**

**Question**

OQ6. Based on the experience you have had during your first month being on the UNC campus,
   please rate your satisfaction with the level of customer service you received from UNC
OQ7. Can you share the name of a faculty or staff member on campus who has made a positive impact on your transition to UNC?
OQ8. If you have had a negative customer service experience on campus with a department, faculty, or staff member, can you please share their name so we can provide necessary feedback?

**Validity and reliability of the instrument.** Over the last decade, EBI has collaborated with over 300 colleges and universities who use the MapWorks® First Year Transition Survey. As such, the survey has gone through many empirical investigations in order to test the validity and reliability of the survey. Validity in quantitative research is best described as ‘accuracy’ or
to what extent will the instrument measure what it intendeds to measure. Reliability is best explained as ‘consistency’ or to what extent will the instrument consistently generate the same outcome (Moss, 1994). In order to verify the validity and reliability of the survey instrument, a series of tests were conducted. The first test began with Face Validity. The Face Validity process that was developed for this particular survey involved a purposeful determination of the type and manner survey questions were asked based on knowledge of experts within the field. The survey review process afforded these published field experts an opportunity to look at the scholarly literature in order to verify if the MapWorks® First Year Transition Survey was measuring the important aspects within the field and an opportunity to uncover wording and phrasing confusion by recommending appropriate language that relates directly to existing published research. Consistent with the Face Validity literature, individuals who had taken the survey were asked a series of questions about the survey. This technique is known as ‘direct approach method’ (Nevo, 1985). Student panels were formed and participants were asked their views on the intent behind the questions asked in the survey, how and why they answered questions in the manner in which they did, and finally, did any confusion exist throughout the survey based on how questions were worded. The intended outcome using the Face Validity method for testing surveys allows for the instrument to be tested for its practicality and pertinence (Nevo, 1985).

In addition to Face Validity, MapWorks® First Year Transition Survey utilized an exploratory and confirmatory factor analysis procedure in the development of the survey. Factory Analysis is a useful procedure especially with multi-item inventories that are designed to measure attitudes, behavior styles and other multifaceted constructs (Floyd & Widaman, 1995). In particular, the factor analysis procedure for this survey allowed the measures to be refined,
identified underlying constructs, and validated factor items. Woosley and Jones (2011) report internal reliability of the scales was determined with Cronbach’s Alpha ($\alpha$) with reliability ranging from .67 to .92. According to Nunnally (1978), and other reliability literature, the minimum reliability scale is .70; allowing researchers to partake in deeper and higher level descriptive or predictive analytics. A full list of survey factors are presented in Table 6.

Table 6

Survey Factors and Corresponding Cronbach’s Alphas

<table>
<thead>
<tr>
<th>Factor (Scale Name)</th>
<th>Reliability ($\alpha$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment to the Institution</td>
<td>.77</td>
</tr>
<tr>
<td>Self-Assessment: Communication Skills</td>
<td>.75</td>
</tr>
<tr>
<td>Self-Assessment: Analytical Skills</td>
<td>.72</td>
</tr>
<tr>
<td>Self-Assessment: Self-Discipline</td>
<td>.80</td>
</tr>
<tr>
<td>Self-Assessment: Time Management</td>
<td>.77</td>
</tr>
<tr>
<td>Financial Means</td>
<td>.87</td>
</tr>
<tr>
<td>Basic Academic Behaviors</td>
<td>.67</td>
</tr>
<tr>
<td>Advanced Academic Behaviors</td>
<td>.79</td>
</tr>
<tr>
<td>Academic Self-Efficacy</td>
<td>.88</td>
</tr>
<tr>
<td>Peer Connections</td>
<td>.93</td>
</tr>
<tr>
<td>On-Campus Living: Social Aspects</td>
<td>.87</td>
</tr>
<tr>
<td>Homesickness: Separation</td>
<td>.62</td>
</tr>
<tr>
<td>Homesickness: Distressed</td>
<td>.87</td>
</tr>
<tr>
<td>Academic Integration</td>
<td>.86</td>
</tr>
<tr>
<td>Social Integration</td>
<td>.87</td>
</tr>
<tr>
<td>Satisfaction with Institution</td>
<td>.89</td>
</tr>
<tr>
<td>On-Campus Living: Environment</td>
<td>.76</td>
</tr>
<tr>
<td>On-Campus Living: Roommate Relationship</td>
<td>.82</td>
</tr>
<tr>
<td>Off-Campus Living: Environment</td>
<td>.77</td>
</tr>
</tbody>
</table>

Convergent and Divergent Validity was examined throughout the survey. Convergent validity occurs when items within the survey appear to have a relationship to acceptable theoretical standards that are used as comparison (Trochim, 2005). For instance, survey items should have a relationship to the theory advised in the scholarly literature. As such, retention
and GPA were used as constructs and evaluated to examine the relationship to each other and several outcome measures (Woosley & Jones, 2011). In all, the pattern of findings over the years, reflected consequences similar to published studies. Additionally, discriminant validity was examined and refers to the degree to which a construct is dissimilar to other constructs and to those that theory indicates should be dissimilar support the validity of two different constructs (Trochim, 2005). Divergent validity was evidenced through two homesickness factors (separation and distressed) and appeared in the factor analysis and identified in the varying relationships each factor has related to persistence and GPA (Woosley & Jones, 2011).

**Data Collection: Procedures**

This study addressed the research questions and null hypotheses using the MapWorks® First Year Transition Survey, a survey design administered on an annual basis at UNC. The researcher obtained IRB approval from both the University of Northern Colorado and Northeastern University before analyzing data for this study. Upon IRB approval, the researcher gained access to the MapWorks portal for “administrator” access. This process will require a unique login and password in order to access the data files specifically on the cohort data of 2013. Upon this access, the researcher notified the department of housing and residence life, as a professional courtesy of this process.

The dataset was pre-existing and collected using a web-based questionnaire. The data set for this study comprised of examining one university and participants’ enrollment demographics such as race/ethnicity, gender and socioeconomic status. Accordingly, this study used secondary data and examined the 2013 cohort of first year students living on campus at the University of Northern Colorado. In addition, the examination of persistence or non-persistence was studied through obtaining actual ‘continued enrollment’ (persistence) or ‘dis-enrollment’ (departure) of
the 2013 cohort, observed as of the following year, fall 2014. The desired level of significance is 0.05, indicating the probability less than or equal to the significance level would determine that the null hypothesis will be rejected and the results considered to be statistically significant (Mujis, 2004).

More specifically, the procedures to administer this survey were communicated clearly and concisely to the residence hall staff. The survey was retrieved from EBI at the beginning of the academic year in September, and the Department of Housing and Residence Life officially administered the survey to all students living in the residence halls beginning at the fourth week of the first semester. Students had until the sixth week to complete the instrument. Since the survey is web-based, students received instructions and invited to participate in the survey through an email that is sent by each director of each living community. Before this email, advertisement in all forms (word of mouth, electronic, etc.) was sent for students to be mindful of the week in which they receive the email link invitation. Students had approximately 30-45 minutes to complete the survey and depending on how they answer particular questions, time to take the survey varied due to branching logic questions. Once the participant filled out the web-based survey, notification was given to each residence hall director in order for them to track the percentage of completion within the living community. Students received several reminders via personal and electronic communication with residence halls staff in order for students to complete the survey in the one-week timeframe. All students who participated were asked to sign a release of informed consent which indicates the manner in which the data will be used, who has access to the data, and the fact they will be receiving electronic and personal follow-up from staff since the data will be used as an early alert intervention practice. Adler (1999) reports colleges see the greatest departure of students in the first quarter of fall after initial enrollment.
Therefore, this endorses the importance and necessity for early inquiry and exploration of a student’s experience and perception at this stage of survey administration. All students who participated in the survey were given an opportunity to review the MapWorks results with a full time professional staff member of the department. In order for early alert intervention to be effective, direct contact by residence hall staff is critical to provide the necessary support and/or resources for student success and overall navigation. MapWorks® First Year Transition Survey provides 4 levels of risk based on the self-reported data. The categories of risk are: Low (Green), Moderate (Yellow), High (Red), Very High (Double Red) or Unknown. See Figure 4 for a graphic representation of the risk indicators.

**Figure 4. Student risk indicators**

Accordingly, intentional intervention strategies can be customized based on risk indicators assigned to each student who participates in the survey. Upon evaluation of each student’s risk indicator, various interventions can take place depending on the student’s need. Interventions that are used are: visit with academic advisor, schedule an appointment with career services, attend a student activities event, and/or visit a student services office such as financial aid, registrar, etc. All students with a high or very high-risk indicator will receive communication the following business day from a full time professional staff member via email inviting them to schedule a required meeting. All students with a moderate risk indicator are contacted by their resident assistant within 24 hours of completing the survey. All students with a low risk indicator are contacted by their resident assistant during the first week of completing the survey.
Specific to this study, the sections related to the student’s initial commitment to the institution and overall satisfaction of the institution supports the retention and departure theory as noted in the literature review by Astin, Bean, Swail, and Tinto. However, the component of customer services is an added element and brings into the higher education literature a concept that is common to business; yet, applicable to colleges and universities.

**Data Analysis**

**Preparation and transformation of the data.** In order for comprehensive data analysis to occur, precise data preparation is essential and includes techniques of logging data in, data cleaning, data integration, data transformation and establishing a database structure (Pyle, 1999). Data for this study was collected through EBI MapWorks® secured servers. Additional pre-entry characteristics such as demographic information were uploaded by way of the university’s Student Information System. Results of the survey were exported from the secure server into predicative analytic software known as IBM® SPSS®. Once the data was retrieved, a preliminary analysis or a data audit was done in order to observe missing data and variance of the data. If data is missing then it must be re-coded or if a lack of variability exists (survey response options not used by the participant) the data simply do not provide measurement and the goal in all research is to measure difference among cases. In conducting this preliminary analysis, the researcher attempted to reach a threshold of 95% or greater. Missing data that falls below a 95% threshold causes individual cases to be eliminated reducing data eligible to be analyzed (Allison, 2001). Consequently, Little and Rubin (1987) define three types of missingness, and so, while it is important to not have too much missingness it was important for the researcher to do a missing value analysis. In general, research best practices indicate as the proportion of missing data grows, the chance that the data is missing completely at random
diminishes and, consequently, the chance that it is missing due to some systematic reason grows. When missing data is systematically related to the research being conducted (i.e. departure) then the problem of systematic bias threatens the study (Raymond, personal communication, 2013).

Since this study used a survey with Likert Scales, investigating the coding structure was important so that scale items are analyzed in the same direction. For example, high scores translate as the same as other high scores and low scores translate the same as other low scores. Using the three factors of commitment, overall satisfaction and customer service, all items flowed in the same direction without having to conduct a reverse coding procedure.

**Level of measurement.** Based on the given independent and dependent variables used in the study, the scales of measurement, or, the manner in which variables are defined and categorized were established (Stevens, 1946). This phase is important since it determines how data is collected and analyzed. The scales of measurement for the independent variables of institutional commitment, overall satisfaction, and customer service experience were operationalized using a Likert scale. The data were ranked and were treated as interval data.

Two perspectives or opinions exist whether Likert scales constitute interval or ordinal properties. Although both sides make valid points, very few Likert scales can claim interval level properties. Individual items within a survey can be gathered into composite scales or researchers can conduct a factor analysis in order to improve the linear and interval scale properties (Carifio & Perla, 2007). The MapWorks® First Year Transition Survey completes a Factor Analysis to determine appropriate statistical groupings such as, commitment to the institution and satisfaction with the institution (EBI Map-Works, 2012). The dependent variable, student departure, was intend to yield nominal data and was separately classified or categorized into a
yes/no identifier. The nominal scale simply placed items into, or out of, a particular category and is an approach most often used for binary data collection.

**Statistical technique.** Because of a dichotomous dependent variable, the researcher used logistic regression as a statistical technique to conduct this study. Logistic regression assessed the odds probability of the dependent variable as the values of the independent variables change (Pampel, 2000). Various studies have observed the overarching issue of retention using regression-modeling techniques due to its nature to predict or explain group membership or odds probability (Grimm & Wozniak, 1990.) In addition, seminal research focused on the relationship of a student’s pre-entering characteristics such as high school GPA, standardized test score, socioeconomic status, and gender to predict or explain student departure (Desjardins, 2002).

However, the terminology of customer service has not been a variable in prior research; therefore, this study provided further consideration to the student departure literature.

Prior to making a decision to conduct a quantitative study, the researcher explored a qualitative approach desiring to obtain rich data through observing the participants of the study based on his or her setting (Creswell, 2007). However, due to the researcher’s goal to better predict departure, the qualitative research design alone was not adequate. The researcher honed in on a quantitative study and explored the most precise statistical technique in order to align the method with the research questions. Through the exploration process, both Path Analysis (PA) and Structural Equation Model (SEM) were investigated. Although both strategies potentially lend itself to rich analysis, the primary goal of this examination estimates causal relationships among variables and the ability to focus on the exploration of direct and indirect effects. These models are frequently used in higher education research and are particularly well suited for survey data because they comprise a measurement model. Inclusion of the measurement model
allows researchers to control for measurement error in a more precise manner (Fraenkel, Wallen & Hyun, 2012). Conversely, the primary reason these models are not appropriate for this research is they simply do not align with the research questions due to the manner in which the dependent variable was defined in this study. Using a definition of predicting/explaining departure (actual departure) the binary outcome consists of a Yes/No operationalization. Logistic regression allowed the researcher to test the overall adequacy of the model in predicting/explaining departure and allowed for further demonstration of its utility in predicting future outcomes (personal communication, Raymond, 2013). Lastly, a logistic regression approach is capable of testing the individual contribution each independent variable makes by examining the tests of the regression coefficients (Peng & So, 2002).

Although there are alternate methods to test student departure, the guiding inspirations that lead the researcher to a logistic regression technique were: (1) to determine a robust statistical method that provides sufficiency and variation that leads to proper analysis of a dichotomous outcome; and (2) to define a technique that delivers a Coefficient as the main byproduct in order to predict the possible relationship(s) between the independent variables and the dependent variable.

**Descriptive analysis.** Once the research is complete and data are collected, a thorough analysis was developed. A well-built analysis is fundamental for evidence-based practice (Byrne, 2007). The first step in this process produced a descriptive analysis, which included a frequency distribution for each variable used in the study. Descriptive statistics were used in order to better understand the basic features of the data (Bärlocher, 2005). The quantitative descriptions of the data allowed the researcher to display large amounts of data in a practical manner and described the characteristics of the sample population and infer those to the larger
population (Fraenkel, et.al, 2012). The intended outcome of performing a descriptive statistics analysis goes beyond summarizing and characterizing the sample being studied. Additionally, this first step of the analysis allowed the researcher to determine if the sample is normally distributed (Mujis, 2011). Most statistical analyses require the sample to have a normal distribution, which provides researchers an opportunity to compare the sample to larger populations, adding further value to the research at hand.

Furthermore, descriptive statistics deliver information about the sample through Measures of central tendency, variability, and skewness. Measures of central tendency (mean, median and mode) were specifically run for each variable. The mean is the most reliable measure of central tendency for making inferences about a population from a sample; however, the mode is most appropriate for nominal level variables such as individual characteristics such as gender, ethnicity and socio economic status. These measures were reported as number and percent only since these particular variables are typically not averaged because they are not related to each other. In order to understand the variability, the researcher conducted a frequency distribution, which is a method of calculating how often certain categories occur. The frequency distribution includes reporting the range and observing the difference between the minimum and maximum values and it provides an estimate of variability. Moreover, standard deviation (SD) is the most frequently used measure of variability and represents the average distance of scores or values from the mean (Fraenkel, 2012). The SD is best used when data are not multi-modal and it is important to note the SD is sensitive to extreme values so this is important when interpreting normal distributions. Lastly, completing phase one of this data analysis, the researcher explored the measure of skewness. The measure of skewness measures the symmetry of the distribution of the variables for each category and compares the mean to the median (Doane & Seward,
2011). When graphically displayed, the positioning of tails are skewed either left, right or balanced. Skewness for this study was relevant, as it illustrated potential effects of outliers and extreme data values that may be important to identify in this preliminary analysis stage.

**Building the model.** Once the data are free of missingness, the next stage of analysis occurred. Hosmer and Lemwshow (2000) describe this process, as the role of the researcher to find the best fitting and parsimonious model to describe the relationship between the dependent variable and set of independent variables. Since the literature review describes numerous departure factors that are at play for students, it was important to hone in on additional key variables of interest that are important for the researcher to analyze and valuable for the University of Northern Colorado. The additional variables chosen for measurement were based on the key characteristics that are relevant to the enrollment plan of the university and the relationship that may (or may not be) unique to the UNC campus. Additional variables to collect are: race/ethnicity, gender, and socio economic status (based on receiving Pell or not).

**Inferential analysis.** Each of the variables in the study were measured using the MapWorks® First Year Transition Survey. Determining probability of the characteristics of the sample, using inferential statistics, allowed the researcher to assess the strength of the relationship between the independent variables (institutional commitment, overall satisfaction, and customer service experience) and the dependent variable (departure). These variables were rated by the participant. The participant rated the variables based on their (1) perception of their customer service experience (higher rating of a participants’ perception indicates a more positive perception); and (2) commitment and overall satisfaction of UNC (higher rating of a participants’ expression of commitment and overall satisfaction of the intuition indicates a more favorable commitment to and satisfaction of UNC). The researcher hypothesized: a student’s perception of
their customer service experience and stated expressions of their commitment to the institution and overall satisfaction of the institution predict/explain student departure; indicating these variables have a relationship to departure if the assessment by participants is low.

To better understand the survey responses provided by the participants, the researcher used inferential statistics to determine true value and the confidence interval in order to make inferences about the population. The researcher sought a correlation (not causation) among the independent and dependent variables, which is an important distinction. Examining the correlation among the variables results in understanding the change relative to each other.

The research questions were developed based on the overarching central theme to this proposal: Explaining/predicting student departure. The first research question combined all independent variables (commitment, overall satisfaction and customer service experience) to test the overall adequacy of the model. Therefore, it was important to know if the model was sufficient and significantly explained/predicted student departure (dependent variable). Furthermore, the first step as a researcher was to observe the variations of student departure as it relates to the three independent variables. Regression analysis provided an opportunity to study the relationship between multiple explanatory variables and the dependent variable (Allison, 1999).

Research question number one combined three predictor variables and was applied to a single outcome variable such as student departure. In order to explain the equation and determine the coefficients, the researcher desired to predict the likelihood of departure based on the values of a student’s customer service experience, expressions of a student’s commitment to the institution and their overall satisfaction of the intuition. The interval scale of measure of the independent variables was combined with the dependent variable, which is dichotomous.
(presence or absence of an event such as departure or no departure), and then was classified into two buckets as long as the threshold of .05 was exceeded. This process is known as a logistic regression technique (LR) and results in the variable consisting of 2 possible values, the logistic regression does not assume that errors are normal.

Specific to logistic regression, the researcher attempted to determine the probability of student departure and, yet, not predict a precise value. The researcher used log likelihood to help determine how much variation exists once the predictors were applied to the model. In other words, an analysis without any predictors or a model that includes control predictors is considered a baseline model. Because the model added predictor variables, the model transformed from a standard model to a ‘new’ model. In essence, this process compared model to model and explains to the researcher the consequence of the predictors and why the dependent variable has variation. Further testing of the model also included Cox & Snell $R^2$ and observed how much improvement in the model existed and how much unexplained variation was still left after applying the predictor variables. Next, the coefficient statistics such as $b$-coefficient was used when reporting the prediction equation. A negative value indicates a decrease in the probability of explaining/predicting departure. Finally, a Wald test was introduced to determine statistical significance or if there was a statistically significant contribution to the model. Since the sample was large, the standard error of the regression coefficient tended to increase the probability error.

The overall test of the variables and how these variables explain student departure was necessary and was done through the omnibus statistical test. The omnibus test measured the variance between groups requiring multiple variables and entailed both skewness and kurtosis be within the normal distribution range (D'agostino, Belanger, & D'Agostino, 1990). In addition, a
model chi-square test supported determining the overall significance of the equation. The chi-square test helped rule out if variation existed simply due to chance alone. As such, testing the overall significance provided the researcher an understanding if the model was adequate for measuring (Coughlin, 2005).

Next, for research questions 2-4, the researcher examined the correlation using Pearson’s r, a nonparametric procedure test to determine the strength of the linear relationship between two variables (weak, moderate, or strong correlation) (Ahlgren, Jarneving, & Rousseau, 2003). The formula for the Pearson correlation coefficient is: (are the coefficients significant)

\[ r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n \sum x^2 - (\sum x)^2][n \sum y^2 - (\sum y)^2]}} \]

r= Pearson Correlation coefficient
x= Values in the first set of data
y= Values in the second set of data
n= Total number of values

The researcher expected a positive correlation between the three independent variables; therefore, the Pearson’s r was an appropriate test to use. To further recognize the correlation between the variables, a correlation matrix was calculated. Using SPSS, all independent and dependent variables were selected in order to determine the strongest correlations which is indicated by \(-1 \leq r \leq 1\). A perfectly positive correlation is indicated as +1 and a negative correlation is displayed as -1. A correlation of zero indicates that no correlation exists. The correlation matrix is another way to see if the two variables will or will not be correlated or to see if the variables have the ability to explain/predict the dependent variable (Steiger, 1980).
Finally, research questions 5-7 consisted of more than one predictor variable and one dependent variable. The model used for these questions consisted of building a more complex logistic regression with interaction terms. A more robust model was needed due to the way in which the questions were structured: multiple independent variables presented simultaneously to predict the dependent variable (Harrell, 2001). Using SPSS statistical package, the standardized and unstandardized coefficients produced predicted scores on each predictor variables (Aiken & West, 1991). In addition, the standard error coefficient that was associated with each regression coefficient produced the p-value (null hypothesis significance testing). These tests assisted the researcher in determining whether the independent variables predicted student departure. In addition, the correlation between the observed scores and predicted scores allowed the researcher to determine the r squared of set of predictors and the particular linear combination of predictors than by using the predictors by themselves (Fraenkel, Wallen, & Hyun, 2009).

**Validity, Reliability and Generalizability**

There is a level of quality that must be ensured when doing all types of research. The researcher followed a structured format that is aligned with the standards and expectations of general research practices. An important aspect the expected of a researcher is ensure that the survey instrument provides a sound level of reliability and validity. Both reliability and validity of the Map Works instrument was emphasized in the previous section of this chapter and underscores the following methods that were used to ensure the characteristics of validity and reliability: face validity, Cronbach’s alpha, factor analysis, convergent and divergent validity.

In order to control for measurement error and reduce inconsistencies of the constructs, the researcher followed Shipman’s (1988) key questions to quality research. First, the investigation should be able to be carried out or reproduced using the same methods. In the event of subject
error, subject bias and observer error or bias; reliability of the study can be compromised. The constructs investigated in this study were measured in a systematic manner, and internal consistency practices were used when measuring the constructs so that reliability was honored. Second, has the researcher discovered what he/she thinks or claims the research is about? Internal validity demonstrates a solid account of what is happening or occurring in the research environment. Internal validity can be threatened through a variety of ways and the researcher was aware of these threats and limited them in order to conduct effective research. The most significant threat to the validity of this study was the researcher’s relationship to the University. Since the researcher is an administrator at UNC, the researcher has institutional influence and the participants of the survey were not influenced by the researcher or rewarded in any way that was unfair or unethical. Moreover, it was critical to note a high level of sensitivity was cultivated due to the researcher’s position on the UNC campus. One of the external threats to the validity of this study was that participants were self-selected which can create sample selection bias. It was important that the characteristics and demographics represented the first year class of UNC. Fortunately, since over 80% of the first year class live on campus, the sample was expected to have high representation of the overall entering first year class at UNC. Another threat consisted of self-reported data. The researcher measured data based on the answers obtained from the survey. Based on this, a bias may occur depending on how the participant reports. Third, Shipman (1988) discusses the importance and relevance of the results beyond the place of the study. This refers to the study being generalizable to the population beyond the study participants. Depending on the type of the institution, the results of the study may not be generalizable. However, campuses with similar demographics, academic profile, and size may gain insight in understanding student departure in the manner in which this study was conducted.
Finally, there must be sufficient detail on the way the measurement results are produced. Using common statistical software IBM SPSS and a statistician with an earned doctorate in statistics utilized as a coach, the researcher was confident all necessary analysis and measurement reporting was sound.

**Protection of Human Subjects**

Researchers should take into consideration ethics from the time they define the problem they are going to research through writing their results and disseminating their research (Creswell, 2009). First, the researcher must recognize the role and relation to this research. As a member of the leadership team of the institution and the chief enrollment officer for the campus, the researcher had ultimate responsibility for the direction and oversight of the comprehensive enrollment function at UNC and the departments within the researcher’s division are direct service delivery units. Because of this role and position within UNC, authority and influence in this relationship existed, but not necessarily authority over the actual participants in the study. The researcher acknowledged the position and responsibility as an administrator and how the participants in the study may perceive this. As such, necessary protocol was followed in case a participant indicated harm or bias of any nature. In addition, the data gathered from this study was stripped of all identifiers before the researcher began evaluation.

Furthermore, as acknowledgement to the researcher’s profession, the code of conduct of the American Association of Collegiate Registrars and Admissions Officers (AACRO) was followed. In the organization’s Statement of Ethical Principles, AACRO asks its members to serve and advance higher education by providing leadership in academic and enrollment management; conduct themselves with integrity, fairness, honesty, and respect for others; avoid conflicts between personal interests and professional responsibilities, and resolve perceived
conflicts through full disclosure and independent review; dispense complete, accurate, understandable, and truthful information and advice at all times to enhance the worth, dignity, potential, and uniqueness of each individual, and protect the human rights of all people (http://www.aacrao.org/about/ethics.cfm). Finally, consent forms were provided to the participants in advance and the researcher was ethical in the dissemination of the results. Additionally, the executive staff of UNC had a level of comfort with the research, regardless of the results posing negative comments or results about the institution. In order to protect each subject, specific names were not used or identifiable information disclosed. Finally, as part of the research process and protection of human subjects, the researcher submitted the research for IRB approval, a board charged with protecting the rights and welfare of people involved in research (NEU IRB Mission, 2012).
Chapter 4: Findings

This purpose of this study was to examine quantitatively the extent to which perceptions of the customer service experience, expressions of institutional commitment, and overall satisfaction of first year students, living on campus, predict student departure at the University of Northern Colorado (UNC). Through the use of SPSS statistical software, the researcher produced descriptive and inferential statistics and was able to provide explanation to the research questions and test the hypotheses of the study. Prior to analysis, an overall data audit was conducted in order to observe the quality of the data such as missingness and variance. This first step assisted the researcher in gathering a holistic view of the data set prior to in-depth analysis. Secondly, descriptive statistics are presented to better understand the diverse characteristics of the research sample which is the fall 2013 student cohort. Descriptive statistic calculations used to describe the data set were mean, median and mode and were run for each variable in the study in order to determine the central tendency of measurement. In addition, Cronbach’s alpha was reported to analyze the reliability for each survey scale score used in the study. Inferential statistics were used to test the hypothesis, and determine probability. The alpha level was considered significant at .05 or less. The researcher was able to assess the strength of the relationship between the independent variables (institutional commitment, overall satisfaction, and customer service experience) and the dependent variable departure, defined as 1=retained and 0=not retained. Procedures specifically used were, simultaneous logistic regression, which means all independent variables are added at once and in a logical order (Tabachink & Fiddel, 2001), and the Hosmer and Lemeshow technique in order to determine the goodness-of-fit (Lemeshow & Hosmer, 1982). These techniques are demonstrated in research question one as well as five through seven. Research question two-four were tests of the individual independent
variables (customer service, satisfaction and commitment) by testing the coefficient using Wald test. Strength of the coefficient was determined through a weak, moderate or strong correlation designation. Additionally, questions five through seven involved conducting a more complex logistic regression with interaction terms. A more robust model was needed due to the way in which the question was structured: multiple independent variables presented simultaneously to predict the dependent variable (Harrell, 2001). Finally, for further analysis, the researcher sought to better understand additional factors described in the student departure and retention literature. Although these factors were not part of the original hypothesis tested in this study, it was helpful to disclose these factors since they possess having a varying relationship to student departure, retention and overall student persistence. This is tested through eta squared, which is a way to show a shared association of a nominal variable with an interval level one (Tabachink & Fiddel, 2001). Results of these statistical analysis techniques are presented in this chapter, which concludes with an overall summary of the findings.

**Descriptive Statistics**

As a first step to conducting the analysis, the researcher conducted an examination of each variable individually prior to full analysis of the independent and dependent variable relationship. The data presented consist of relevant and meaningful information about the population sample in order to generate sound findings.

**Sample population overview and demographics.** The population under study consisted of first year students, living on campus at the University of Northern Colorado. The researcher used data collected annually by the university specifically, data collected from the Mapworks survey from fall 2013. The total population that participated in the web-based survey consisted
of 2,260 students. A total of 297 members of the first-time cohort did not complete the survey. Therefore, the final sample size was 1963 responses. This represents an 86.8% response.

**Race, gender, first generation and socio-economics status.** Demographics of the participants mirrored the overall demographics of the UNC population. The majority of the participants were female (63.5% female and 36.5% male) and identified as white (62.9%). In addition, the sample consisted of 417 Hispanic or Latino participants (21.2%), 102 multiracial participants (5.2%), 99 black or African-American participants (5%), 41 unknown participants (2.1%), 37 Asian participants (1.9%), 22 non-resident alien (1.1%), 6 Native Hawaiian or Pacific Islander participants (.3%), and 4 American Indian or Alaska Native participants (.2%).

Characteristic of the UNC population, many students identify as first generation (the first in their family to attend college) students. 741 of participants (37.7%) in the study identified as first generation. In terms of socio-economic status, 1,236 participants (63%) identify as not Pell eligible and 727 participants (37%) were Pell eligible, which indicates high financial assistance needed to attend college. Finally, residency of the participants indicated similarities as well to the population of the study body population of UNC: 261 participants (13.3%) were non-residents of the state of Colorado and 1,702 were residents 86.7% were residents of the state of Colorado.
Table 7

*Frequency Count for Demographic Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td>American Indian/Alaska Native</td>
<td>4</td>
<td>0.2%</td>
</tr>
<tr>
<td></td>
<td>Asian</td>
<td>37</td>
<td>1.9%</td>
</tr>
<tr>
<td></td>
<td>Black/African American</td>
<td>99</td>
<td>5.0%</td>
</tr>
<tr>
<td></td>
<td>Hispanic or Latino</td>
<td>417</td>
<td>21.2%</td>
</tr>
<tr>
<td></td>
<td>Multiracial</td>
<td>102</td>
<td>5.2%</td>
</tr>
<tr>
<td></td>
<td>Native Hawaiian/Other Pacific Islander</td>
<td>6</td>
<td>0.3%</td>
</tr>
<tr>
<td></td>
<td>Non-Resident Alien</td>
<td>22</td>
<td>1.1%</td>
</tr>
<tr>
<td></td>
<td>Unknown</td>
<td>41</td>
<td>2.1%</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>1235</td>
<td>62.9%</td>
</tr>
<tr>
<td>Gender</td>
<td>Female</td>
<td>1247</td>
<td>63.5%</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>716</td>
<td>36.5%</td>
</tr>
<tr>
<td>First Generation</td>
<td>Unknown</td>
<td>208</td>
<td>10.6%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>1014</td>
<td>51.7%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>741</td>
<td>37.7%</td>
</tr>
<tr>
<td>Socio Economic Status</td>
<td>No Pell</td>
<td>1236</td>
<td>63.0%</td>
</tr>
<tr>
<td></td>
<td>Yes Pell</td>
<td>741</td>
<td>37.7%</td>
</tr>
<tr>
<td>Residency</td>
<td>Non-Resident</td>
<td>261</td>
<td>13.3%</td>
</tr>
<tr>
<td></td>
<td>Resident</td>
<td>1702</td>
<td>86.7%</td>
</tr>
</tbody>
</table>
**Pre-college entry academic characteristics.** As noted in the vast body of student retention literature, prior academic readiness is commonly cited as a strong predictor of student persistence. Participants of this study again demonstrate typical patterns of academic readiness similar to overall enrollment of first year students. The mean ACT standardized test score was 22, mean Index Score (state calculation of high school GPA and standardized test score) was 105, and high school mean GPA was 3.2.

**Descriptive analyses of instrument.** The instrument scales and subscales were evaluated using mean and standard deviation. Skewness and kurtosis were also measured to identify variability and distribution. Results are presented in Table 8.

Table 8

*Scale and Item Level Mean, SD, Skewness, and Kurtosis*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment</td>
<td>6.26</td>
<td>1.02</td>
<td>-1.90</td>
<td>4.27</td>
</tr>
<tr>
<td>Level of Commitment –</td>
<td>6.02</td>
<td>1.31</td>
<td>-1.45</td>
<td>1.92</td>
</tr>
<tr>
<td>To what degree are you committed to completing a: Degree/certificate/licensure at this institution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intent to Return –</td>
<td>6.62</td>
<td>.944</td>
<td>-3.30</td>
<td>12.5</td>
</tr>
<tr>
<td>To what degree do you intend to come back to this institution for the: Spring term</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intent to Return –</td>
<td>6.12</td>
<td>1.40</td>
<td>-1.80</td>
<td>2.85</td>
</tr>
<tr>
<td>To what degree do you intend to come back to this institution for the: Next academic year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td>5.58</td>
<td>1.17</td>
<td>-0.95</td>
<td>0.62</td>
</tr>
<tr>
<td>Overall Evaluation of the Institution –</td>
<td>5.62</td>
<td>1.47</td>
<td>-1.18</td>
<td>0.98</td>
</tr>
<tr>
<td>Overall, to what degree: Would you choose this institution again if you had it to do over</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Overall Evaluation of the Institution

- **Overall, to what degree:** Would you recommend this institution to someone who wants to attend college?

| Overall Evaluation of the Institution | 5.90 | 1.26 | -1.34 | 1.84 |

- **Overall, please rate your Experience at this institution:**

| Experience at this institution | 5.23 | 1.18 | -0.37 | -0.32 |

### Customer Service

- **Institutional Question – Based on the experience you have had during your first month being on the UNC campus, please rate your satisfaction with the level of customer service you received from UNC.**

| Customer Service | 5.37 | 1.20 | -0.72 | 0.53 |

---

The results in general show normal distribution. Many scale items show slight to moderate skew as evidenced by skewness departing from a mean of 0. Skew as the mean is pulled slightly away from center to the right. Among the three constructs under study, respondents scored commitment as the highest (average) and customer service as the lowest (average). Considering the two constructs of commitment and satisfaction, respondents scored intending to return to the institution for the following spring semester higher than intending to return for the following academic year. Lastly, within satisfaction, experience at the institution scored lowest of all mean scores. The standard deviation was highest for customer service scale when compared to commitment scale and satisfaction scale; yet, within the satisfaction scale the intent to return subscale (for the subsequent spring semester) was the lowest average score (.944). Observing the distribution and peakedness /flatness through the skewness and kurtosis statistic, the skewness ranges from -0.727 to -1.905. As skew and kurtosis depart from 0 there is more skew. Greater than 1 is moderate skew and beyond 2 indicates stronger skew (Tabachink & Fiddel, 2001), which is determined as an acceptable skewness value of the sample distribution compared
to the normal distribution. The kurtosis statistics show variation among the three scales, and specifically in the scale of commitment, there is a positive value (4.271) that departs from a relatively normal distribution. However, due to the nature of the study (purpose and type of the instrument) the scales, independent variables, do not have assigned assumptions about the normality of the scales.

**Internal reliability of map works instrument.** The internal consistency of the Mapworks instrument is measured using Cronbach’s alpha. Typical for most survey research, the reliability or internal consistency may differ when administered to another sample population. Although the reliability was measured via the Educational Benchmarking, Inc. (EBI) firm that produces the survey, the researcher determined it was important to evaluate if the scales produced similar coefficients compared to the EBI Map works assessment. Table 9 shows the scale and subscale Cronbach alpha scores.

Table 9

*Scale and Subscale Mean, SD, Skewness z score, and Kurtosis z score*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N of Items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment</td>
<td>3</td>
<td>.774</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>3</td>
<td>.876</td>
</tr>
</tbody>
</table>

According to the map works survey literature, Cronbach alpha scores of .0.5 is acceptable, 0.7 is good and 0.8 is exceptional (EBI MapWorks, 2012). The national map works Cronbach alpha scores of reliability are: Commitment to the institution, $\alpha=0.77$ and Satisfaction with the institution, $\alpha=0.89$. Scores do not exist for customer service since it was an institutional-designed
scale. Thus, the results of the researcher’s measurement of reliability indicate the survey scales are reliable for this particular sample population.
Inferential Statistics

Inferential statistics were used to reject or confirm the null hypotheses. Using this type of analysis allowed the researcher to determine probability of the characteristics of the sample, and assess the strength of the relationship between the independent variables and the dependent variable. Moreover, the researcher aimed to apply the most appropriate statistical procedure in order to use predictive modeling techniques in the researcher’s community of practice of enrollment management. The application of predictive modeling used as a business practice in enrollment management provides an opportunity to produce a more robust forecast of the entire student enrollment life cycle (pre-enrollment through disenrollment). This study focused primarily on the relationship the independent variables of institutional commitment, overall satisfaction, and customer service experience has on student departure (dependent variable). Therefore, logistic regression is the most common statistical technique used for predictive modeling and to describing relationships between an outcome variable and more than one categorical or continuous predictor variables (Peng, Lee, & Ingersoll, 2002). In addition, other tests were used to test each hypothesis in this study.

Multicollinearity

Before testing the three independent variables and the relationship with the dependent variable, the researcher analyzed if two or more variables measured similar behavior. This was conducted in order to eliminate the threat of multicollinearity. Tabachink and Fiddel (2001) state redundant variables inflate the size of error terms and weaken the analysis. A threshold of .70 is often used to determine threat of multicollinearity (Tabachnik & Fiddle, 2001). Conceptually, the constructs of this magnitude do not show concerning overlap or shared variance; therefore, multicollinearity was not a factor.
Table 10

Correlations of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Customer Service</th>
<th>Commitment</th>
<th>Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.245**</td>
<td>.459**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.245**</td>
<td>1</td>
<td>.573**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.459**</td>
<td>.573**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

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

The correlation matrix was constructed for each of the independent variables and the outcomes of the Pearson Correlation test supported the independent variables not displaying strong correlation, which allows the variables to be included in the ensuing regression model.

**Missing Data.** The first step began looking at records with missing surveys or incomplete items. Initial observances of the data show approximately 402 cases were extracted from the model due to systematic missing data. Various reasons exist as to why missing data may occur. For example, subjects may drop out of the study, timing of the study may not align with the subject’s schedule, or the subject may refuse to answer an item level question (Raymond, 2009). Regardless of the reason, missing data is relevant to a research study due to the issue of bias. The missing data in this particular study was not unique to the fall 2013 cohort as similar results existed in past years. Subjects skipped various item level questions, specifically, the scale pertaining to commitment. This accounted for approximately 15-20% of missing data; however was deemed systematic missingness and is not atypical and conceivably,
characteristic for large surveys. A number of approaches exist to handle missing data in this fashion and the most common approach, which was performed on this analysis, omits all cases that contain missing data (Barladi & Enders, 2010). The analysis is then run on the remaining cases. The statistical treatment for this process is known as list wise deletion (Barladi & Enders, 2010). Furthermore, an unforeseen contribution to this study allowed the researcher to explore the missing data phenomena, specifically, non-response item level data. More on this is presented in chapter five.

**Logistic regression.** The first step in the logistic regression model is to first produce the null model. Producing a null model serves as a baseline due to removal of independent variables in order to properly classify cases with the assumption that all cases were retained or in other words, did not depart from the institution. This is displayed in table 11.

Table 11

*Classification Model with no Independent Variables Included*

<table>
<thead>
<tr>
<th>Observed</th>
<th>0=departed</th>
<th>1=not departed</th>
<th>% correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>443</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>118</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>71.6%</td>
</tr>
</tbody>
</table>

Table 11 displays the classification model that predicts the probability of the binary response, departure (yes, no) without predictors of commitment, satisfaction and customer service. As a result, this model classified 71.6% of the cases as returning, or not departing.
*Evaluation of the Logistic Regression Model.* Researchers will commonly test the logistic regression model by running a chi-square, goodness-of-fit test, and R²-type indices.

Tables 12-15 represent this preparation.

Table 12

**Overall Model Evaluation (Omnibus Test of Model Coefficients)**

<table>
<thead>
<tr>
<th>Tests</th>
<th>Chi-Square</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>61.166</td>
<td>3</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 12 displays the significance is not likely due to chance, nor does this state causality.

However, the test of model coefficients significantly contributes to the explanation of departure.

Table 13

**Fit Indices**

<table>
<thead>
<tr>
<th>Test</th>
<th>-2 Log likelihood</th>
<th>Cox &amp; Snell R Squared</th>
<th>Nagelkerke R Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>1801</td>
<td>.038</td>
<td>.055</td>
</tr>
</tbody>
</table>

*Note: Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.*

Fit indices are evidence that the inclusion of the variables help explain the data that is presented.

Table 13 demonstrates improvement to the model, relative to the null model, with a minimal reduced -2 log likelihood due to the addition of the independent variables. The tests attempt to maximize the likelihood by selecting the most appropriate coefficients to best fit the model. This iterative process fits multiple models and maximizes the likelihood function.
Table 14

Hosmer and Lemeshow Prediction Contingency

<table>
<thead>
<tr>
<th>Decile</th>
<th>.0=Not Enrolled</th>
<th>1.0=Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Observed</td>
<td>Expected</td>
</tr>
<tr>
<td>1</td>
<td>83</td>
<td>78.537</td>
</tr>
<tr>
<td>2</td>
<td>50</td>
<td>58.106</td>
</tr>
<tr>
<td>3</td>
<td>49</td>
<td>48.880</td>
</tr>
<tr>
<td>4</td>
<td>41</td>
<td>44.2201</td>
</tr>
<tr>
<td>5</td>
<td>38</td>
<td>40.870</td>
</tr>
<tr>
<td>6</td>
<td>43</td>
<td>37.269</td>
</tr>
<tr>
<td>7</td>
<td>36</td>
<td>39.852</td>
</tr>
<tr>
<td>8</td>
<td>44</td>
<td>32.364</td>
</tr>
<tr>
<td>9</td>
<td>35</td>
<td>33.326</td>
</tr>
<tr>
<td>10</td>
<td>24</td>
<td>29.595</td>
</tr>
</tbody>
</table>

Table 15

Hosmer and Lemeshow Goodness-of-Fit-Test

<table>
<thead>
<tr>
<th>Test</th>
<th>Chi-Square</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step</td>
<td>11.338</td>
<td>8</td>
<td>.183</td>
</tr>
</tbody>
</table>

This specific test rank orders the probability scores and assigns them to ten groups or deciles. A chi-square was generated and placed into observed and expected groups of enrolled or not enrolled categories. The lowest ranked probability indicates least likely to enroll and the highest ranked probability indicates most likely to enroll. As a result, Table 14, is not showing a discrepancy in the prediction; therefore, the model is predicting accordingly. Since a difference between observed and expected values do not exist, the Hosmer and Lemeshow fit test was not significant and suggests an appropriate fit of the data (Lemeshow & Hosmer, 1982).

Classification model with independent variables. Once the null model was developed, a further analysis was conducted to predict the probability of the binary response, departure (yes,
no). This time, predictor variables were used: commitment, satisfaction and customer service.

Displayed in Table 16, the model classified 72.8% of the cases and it is observed that more cases moved into the categories of departed and not departed compared to the null model.

Table 16

<table>
<thead>
<tr>
<th>Observed</th>
<th>0=departed</th>
<th>1=not departed</th>
<th>% correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>37</td>
<td>406</td>
<td>8.40%</td>
</tr>
<tr>
<td>1</td>
<td>19</td>
<td>1099</td>
<td>98.3%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>72.8%</td>
</tr>
</tbody>
</table>

*Note: The cut value is .500*

**Hypothesis 1.** The first hypothesis addresses the relationship between the three independent variables and the dependent variable. It states:

- $H_0$: Perceptions of customer service experience, commitment to the institution and overall satisfaction do not predict student departure.
- $H_1$: Perceptions of customer service experience, commitment to the institution and overall satisfaction predict student departure (binary) at the University of Northern Colorado.

**Summary of Initial Regression Model.** According to the null hypothesis, the predictor variables, applied together, variables do contribute to the prediction of departure. As such, the model yielded a $\chi^2 (8)$ of 11.3 and was less than the significance stated at ($p<.05$). In addition, the model improved classification accuracy by .8 of percent. Overall, as a model with three predictor variables, applied together, suggests the regression coefficients were not statistically significant for the dependent variable departure. Therefore, the null hypothesis was rejected.
Hypothesis 2. The second hypothesis addresses the relationship between customer service and departure. It states: Do student perceptions of their customer service experience predict student departure (binary) at the University of Northern Colorado?

H2a: Perceptions of customer service experience do not predict student departure.

H2: Perceptions of customer service experience predict student departure

Individual test of predictors. For research questions 2-4, each of the predictor variables were tested and evaluated separately as well as their effect on the outcome variable. The beta coefficient ($B$) represents a logit for each of the independent variables under study. A Wald test scaled score was calculated to test each coefficient and the significance. Table 17 shows for each unit increase in retention there is a positive relationship to the dependent variable. The independent variable customer service had a beta coefficient of 0; the Wald test was 0; with 1 degree of freedom, and .993 significance. The customer service variable was not significant in explaining departure and the null hypothesis was retained.

Table 17

Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.782</td>
<td>.384</td>
<td>21.489</td>
<td>1</td>
<td>.000</td>
<td>.16</td>
</tr>
<tr>
<td>Customer Service</td>
<td>.000</td>
<td>.053</td>
<td>.000</td>
<td>1</td>
<td>.993</td>
<td>1.00</td>
</tr>
<tr>
<td>Commitment</td>
<td>.350</td>
<td>.068</td>
<td>26.78</td>
<td>1</td>
<td>.000</td>
<td>1.41</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>.096</td>
<td>.064</td>
<td>2.253</td>
<td>1</td>
<td>.133</td>
<td>1.10</td>
</tr>
</tbody>
</table>

Note: Variable(s) entered on step 1: OQ11, Factor15, Factor 01
**Hypothesis 3:** The third hypothesis addresses the relationship between commitment to the institution and departure. It states: Do student expressions of commitment to the institution predict student departure (binary) at the University of Northern Colorado?

- **H3a:** Expressions of commitment to the institution do not predict student departure.
- **H3:** Expressions of commitment to the institution do predict student departure.

Here, the results for commitment show the strongest probability of departing. The probability for commitment results in .000 and was found significant to the explanation or prediction of departure. Customary to theory, commitment has a positive relationship to being retained.

**Hypothesis 4:** The fourth hypothesis addresses the relationship between satisfaction and departure. It states: Do student expressions of overall satisfaction of the institution predict student departure (binary) at the University of Northern Colorado?

- **H4a:** Expressions of overall satisfaction of the institution do not predict student departure.
- **H4:** Expressions of overall satisfaction of the institution predict student departure.

The results for satisfaction show a greater probability of not departing (compared to customer service alone); however, the probability for satisfaction results in .133 and was found not significant to the explanation or prediction of departure and the null hypothesis was retained.

Overall, the results of hypotheses 2-4 suggest the test of the null hypotheses is retained for customer service and satisfaction and rejected for commitment. For every one-unit increase on the commitment score, there is a 1.2 times greater change the student would be retained.

**Hypotheses 5-7.** The final set of hypotheses involves test of the interactions with three two-way interactions. These were added to the logistic regression to analyze the relationship these variables have on departure. They state:

- **H5:** Perceptions of customer service experience and expressions of commitment to the
institution predict student departure.

**H₀**: Perceptions of customer service experience and expressions of commitment to the institution do not predict student departure.

**H₆**: Perceptions of their customer service experience and expressions of overall satisfaction to the institution predict student departure.

**H₀**: Perceptions of their customer service experience and expressions of overall satisfaction to the institution do not predict student departure.

**H₆**: Perceptions of their customer service experience and expressions of overall satisfaction to the institution predict student departure.

**H₇**: Expressions of their commitment to the institution and of overall satisfaction of the institution predict student departure.

**H₀**: Expressions of their commitment to the institution and of overall satisfaction of the institution do not predict student departure.

**H₇**: Expressions of their commitment to the institution and of overall satisfaction of the institution predict student departure.

**Full Model Logistic Regression.** The manner in which to best address the combination of variables and the relationship to departure, was to develop a full and more robust regression model with interactions for overall comparison to the null model, model building, and model fit indices. The results were interpreted in context of the logistic regression used to address research question one known as the null model. The full model consisted of varying combinations of the three independent variables with three interaction terms and the corresponding relationship to departure.
Table 18

Classification model with interaction terms

<table>
<thead>
<tr>
<th>Observed</th>
<th>0 (departed)</th>
<th>1 (not departed)</th>
<th>% correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>46</td>
<td>397</td>
<td>10.4%</td>
</tr>
<tr>
<td>1</td>
<td>23</td>
<td>1095</td>
<td>97.9%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>73.1%</strong></td>
</tr>
</tbody>
</table>

Table 18 displays the classification model that predicts the probability of the binary response, departure (yes, no) with interaction terms. As a result, this model classified 73.1% of the cases as returning, or not departing. This improved classification accuracy over the null model.

Table 19

Overall Model Evaluation (Omnibus Test of Model Coefficients)

<table>
<thead>
<tr>
<th>Predicted</th>
<th>Chi-Square</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>63.440</td>
<td>6</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 19 shows the model is significant with interaction terms.

Table 20

Indices of Fit

<table>
<thead>
<tr>
<th>Model</th>
<th>-2 Log liklihood</th>
<th>Cox &amp; Snell RSquare</th>
<th>Nagelkerke R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1798</td>
<td>.040</td>
<td>.057</td>
</tr>
</tbody>
</table>

*Note: Estimation terminated at iteration number 4 because parameter estimates changed by less than .001*

The fit indices displayed in Table 20 shows that the full model with interactions has a modest improvement in overall fit as indicated in the -2 log likelihood decreased compared to the null
model. Furthermore, the pseudo r squared indices demonstrate slight increase, which suggests improved explanation.

Table 21

*Full Model Evaluation Hosmer and Lemeshow Goodness-of-Fit-Test*

<table>
<thead>
<tr>
<th>Model</th>
<th>Chi-Square</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.509</td>
<td>8</td>
<td>.809</td>
</tr>
</tbody>
</table>

Table 22

*Coefficients*

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.37</td>
<td>1.39</td>
<td>.976</td>
<td>1</td>
<td>.323</td>
<td>.252</td>
</tr>
<tr>
<td>Customer Service</td>
<td>-.199</td>
<td>.280</td>
<td>.506</td>
<td>1</td>
<td>.477</td>
<td>.820</td>
</tr>
<tr>
<td>Commitment</td>
<td>.536</td>
<td>.282</td>
<td>3.611</td>
<td>1</td>
<td>.057</td>
<td>1.70</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>-.076</td>
<td>.356</td>
<td>.046</td>
<td>1</td>
<td>.830</td>
<td>.926</td>
</tr>
<tr>
<td>Commitment and Customer Service</td>
<td>-.018</td>
<td>.054</td>
<td>.109</td>
<td>1</td>
<td>.741</td>
<td>.982</td>
</tr>
<tr>
<td>Commitment and Satisfaction</td>
<td>-.020</td>
<td>.048</td>
<td>.183</td>
<td>1</td>
<td>.668</td>
<td>.980</td>
</tr>
<tr>
<td>Customer Service and Satisfaction</td>
<td>.059</td>
<td>.042</td>
<td>1.938</td>
<td>1</td>
<td>.164</td>
<td>1.06</td>
</tr>
</tbody>
</table>

*Note: Variable(s) entered on step 1: OQ11, Factor15, Factor 01*

Based on the Wald test, none of the interaction terms are significant. Consequently, the results of hypotheses 5-7 suggest the test of the null hypotheses is retained for customer service and commitment (analyzed together); customer service and satisfaction (analyzed together); and commitment and satisfaction (analyzed together) on departure.
**Summary**

This chapter began with detailing the population through descriptive statistics. These descriptive statistics helped provide a better understanding of the features of the population sample as well measure central tendency to determine distribution of the variables under study. Further analysis included conducting inferential statistics in order to test the seven null hypotheses. In addition, this study sought to understand the change relative to each of the variables as well as determine the best fitting model to describe the relationship between the independent variables and the dependent variable. The main statistical technique used was logistic regression to determine the dichotomous outcome variable, departure (yes or no). Further tests were produced such as assessment of predicted probabilities, statistical test of individual predictors, Wald tests, goodness-of-fit, and cox and Snell R squared.

For hypothesis 1, the null hypothesis that examined commitment, satisfaction and customer service, analyzed together, was retained. For hypotheses 2-4, the null hypotheses was retained for satisfaction and customer services and rejected for commitment. Although the null hypothesis was retained for satisfaction and customer service, satisfaction had a moderate effect on the outcome variable and customer service had a weaker odds probability related to departure. Finally, hypotheses 5-7 examined the odds probability of departure when two combinations of the independent variables were analyzed together. The null hypotheses were retained for each of the analyzed combinations; however, a moderate relationship was seen between commitment and satisfaction when analyzed together.

The final chapter of this study provides discussion of these findings relative to the literature and conceptual framework. Finally, recommendations for future research are made to enhance and expound upon this study.
Chapter 5: Discussion

The purpose of this study was to examine the extent to which perceptions of the customer service experience, expressions of commitment to the institution, and overall satisfaction of first year students living on campus predict student departure at the University of Northern Colorado (UNC). The critical nature of student departure exists due to the unpredictable landscape of higher education across the nation. There is a need for institutions to be mindful of two outcomes: student access and success. This translates to more students attending college and more students persisting and graduating. With an enormous amount of research related to the overall umbrella of student retention, institutions of higher education seldom focus attentiveness and resources on the student departure phenomena. Many times the “cure” to keep students from departing has been to initiate programs focused on student engagement. Examples such as learning communities, tutoring and supplemental instruction services, and co-curricular type events are most commonly cited in the literature as ways to improve student persistence (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008). Although these practices support a variety of commonly identified student success impediments, campuses may not be addressing new and emerging matters that have recently evolved in the past five to ten years. Today, students are much different, the landscape of higher education is nuanced with challenges, and the massification of higher education (Morgan, 2013) has emerged into something beyond the findings of seminal research. The contribution of this study adds to the retention and persistence narrative through methods of prediction/explanation to better understand why students depart and the steps that may serve as precursors to a student’s decision to de-enroll from the institution. This notion is not unique to business organizations. In fact, they spend a great amount of financial and human resources wrapping their arms around this very problem of
customer defection. The modern business trend capitalizes on gaining the customer’s commitment and developing firm relationships with customers in order to deter them from defecting to the competition (Ndubisi, 2007). Business organizations do not want to lose customers and institution of higher education do not want to lose students—especially if the reason for departure may be unnecessary and can be addressed by the organization/institution.

To better understand the student departure phenomena and improve prediction ability in the researcher’s community of practice, the following research questions emerged: This study hypothesized that a student’s perception of their customer service experience and stated expressions of their commitment to the institution and overall satisfaction of the institution predict student departure. Furthermore, through a quantitative research design, this study addressed the following:

**RQ1:** Do student perceptions of their customer service experience and expressions of their commitment to the institution and overall satisfaction of the institution (as combined variables) predict student departure (binary) at the University of Northern Colorado?

**RQ2:** Do student perceptions of their customer service experience predict student departure (binary) at the University of Northern Colorado?

**RQ3:** Do student expressions of their commitment to the institution predict student departure (binary) at the University of Northern Colorado?

**RQ4:** Do student expressions of their overall satisfaction of the institution predict student departure (binary) at the University of Northern Colorado?

**RQ5:** Do student perceptions of their customer service experience and their expressed commitment to the institution predict student departure (binary) at the University of Northern Colorado?
**RQ6:** Do student perceptions of their customer service experience and their expressed overall satisfaction of the institution predict student departure (binary) at the University of Northern Colorado?

**RQ7:** Do student expressions of their commitment to the institution and overall satisfaction of the institution predict student departure (binary) at the University of Northern Colorado?

To frame this research study, chapter one began stating the purpose and rational for this study. This chapter brought to the forefront the enormous and resounding call to action by national, state and local leaders for greater increases in student degree attainment. Chapter two summarizes seminal research and theoretical concepts that have helped address the problem of student retention, but literature on a different outcome, i.e., student departure, has not been as deeply studied. This is evidenced by the large number of focused efforts on retaining students through the creation of programmatic initiatives. However, due to the “wide-ification” (Morgan, 2013) of students, which is the “widening” of student demographics such as age, socio economic status, physical and mental abilities, entry qualifications, etc., (Morgan, 2013) current strategy may need to be altered since the population has changed and become more complex. Chapter three provided the research design and outlines the steps in which this study was examined. Since the objective of this research was to predict/explain departure, the researcher used secondary data from an annual survey of first year students from fall 2013. The secondary data originated from Map Works First Year Transition Survey and is known for its holistic approach to student success and retention, while providing a platform of information to better assist students early in the academic term. A simultaneous logistic regression statistical technique was used to address the research questions, since this method relies on previous data and is frequently
used to predict future events (Fraenkel, Wallen, & Hyun, 1993). The total population that received the survey consisted of 2,260 students. Approximately 297 members did not complete the survey; therefore, the final sample for this study was 1,963, which was an 86.8% response rate. SPSS was used to analyze the data and the results were presented. Subsequently, this chapter discusses the findings, implications, limitations and ideas for future research.

**Summary of Findings**

Results varied throughout the analysis depending on the research hypothesis tested. Three variables, commitment to the institution, overall satisfaction, and customer service experience, combined and individually had varying effect related to student departure.

Hypothesis 1 examined the constructs of commitment, satisfaction and customer service, analyzed together, and their relationship to departure. Consistent with theory, the null hypothesis was rejected. As for hypotheses 2-4, the null hypotheses was retained for satisfaction and customer service, however, it was rejected for commitment. Although the null hypothesis was retained for satisfaction and customer service, satisfaction had a moderate effect on the outcome variable and customer service had a weaker odds probability related to departure. Finally, hypotheses 5-7 examined the relationship of departure when all two-way interactions of the independent variables were examined. The null hypotheses were retained for each of the analyzed combinations; however, a moderate relationship was seen between commitment and satisfaction when analyzed together. Overall, out of the 7 hypotheses that were tested, three variables, when combined together, as well as commitment to the institution (measured alone) achieved favorable predicative significance on the outcome variable, student departure.
Discussion

As an introduction to this research, it was stated clearly that the problem of student departure has not changed significantly over the years (ACT, 2006). Seminal research previously focused on pre-entry characteristics such as high school GPA, standardized test scores, socioeconomic status, and gender to predict or explain student departure (Desjardins, 2002). Theories of retention were foundational for this study and specific to the type of institution in which this research took place. Researchers such as Astin, Bean, Tinto, and Swail provided context for this study. In addition, emerging theorist, Swail (2003), was the first to talk about organizational influences such as culture and intentional and unintentional practices of the institution and how these activities play a role in a student’s decision to depart or not.

The results of the study were enlightening and contribute to the research on student retention and departure. As previously stated, numerous theories about student retention or departure were developed many years ago, and have yet to be substituted based on the new and emerging paradigms such as: shifting higher education funding models, increased institutional accountability, changing student demographics, increased expectations from students and families, increased competition for student enrollment, amplified competition among colleges and universities, and the overall financial sustainability of public higher education institutions. Consequently, observing student departure through a lens that intersects with modern business practices and the concepts and theories used in such organizational management theory broaden the research and study of this topic.

Research Question 1: Do student perceptions of their customer service experience and expressions of their commitment to the institution and overall satisfaction of the institution (as combined variables) predict student departure (binary) at the University of Northern Colorado?
The null hypothesis for this question stated: There is no relationship between students who depart UNC and their perceptions of their customer service experience and expressions of their commitment to the institution and overall satisfaction of the institution, while the alternate hypothesis assumed a relationship between students who depart UNC and their perceptions of their customer service experience and expressions of their commitment to the institution and overall satisfaction of the institution. The data reveal the null hypothesis is rejected and is consistent with the body of literature within student affairs, enrollment management, and the private sector. It was found that in a model where student’s perceptions of customer service experience, expressions of their commitment and overall satisfaction of the institution are included; the prediction from the null model was improved by 1.2% increase. When these constructs are placed together the model performs with better accuracy to predict departure. For reference, the null model represents 71.6% classification accuracy and classified each case as retained. Therefore, this is not a useful model that is actionable and is not a model that would require any intervention. The omnibus test suggests the overall model, with all three variables, is significant, resulting in systematic explanation of departure. If there were no relationship among the variables, the chi square test would not be significant. Therefore, a student who indicates low perceptions of customer service experience, low commitment and overall low satisfaction of the institution is more likely to depart UNC than a student who demonstrates higher levels in each of these variables when analyzed together. Reason (2009) notes that placing multiple variables in a model and observing the interaction between variables provides stronger probabilities and predictions than studying variables alone. Higher education research typically explores many variables at one time, however, this particular set of variables (analyzed together)
were unique to the higher education literature, specifically with the addition of the customer service experience construct.

The scales used in this study consisted of shared variance, but was not concerning from Multicollinearity logic. In addition, one could question the order in which these perceptions or experiences occur: commitment to the organization, satisfaction of the organization or the customer service experience of the organization. Despite the shared terminology or order in which the experience or perception occurs, the subscales were straightforward and commonly referenced in the literature. For the commitment scale, the subscales explored the level of commitment to UNC; level of commitment returning to UNC for the subsequent spring; and finally, the level of commitment returning to UNC for the following academic year. Next, the subscale questions for satisfaction examined if the participant would choose UNC again, recommend UNC to others, and lastly, rate the overall experience at UNC. The final scale, customer service, examined the student’s perception of their experience from the first month of being on campus and satisfaction level with customer service in general.

As a result of the regression model that was developed, it is important to think about each stage that a student goes through prior to arriving on campus. For example, beyond the pre-entry characteristics already known about the student, and assuming nothing else is known, the regression model would improve the institution’s ability to identify who is at risk for departure. Knowing this information in advance would be helpful to work with students and families in order to provide them the necessary tools that would strengthen their commitment, levels of satisfaction, and overall customer service experience. This stage is typically known as the pre-arrival stage, which is an important time for those who have been accepted by the institution (Morgan, 2012). This proactive preparation should not begin and stop when first contact is made
with the institution, but should continue all the way through their arrival and student orientation events. In addition, during the pre-arrival stage, institutions of higher education can use this time to identify potential needs and specific requirements in order to establish a successful transition by the time the student arrives (arrival stage).

As noted earlier and commonly cited in the literature, one variable does not account as cause for departure and it is necessary to take into consideration the combination of factors that cause student departure (McInnis, 2001). The interplay of factors also depends on the stage of life in which the student resides (Long, Ferrier, & Heagney, 2006). However, for research purposes, it is important to conduct statistical tests of individual predictors. The following interpretation of the data demonstrate the relationship between the independent variables and the dependent variable and sought to understand the individual effects on departure and whether the individual predictors should be included in future models.

Research Question 2: Do student perceptions of their customer service experience predict student departure (binary) at the University of Northern Colorado?

The null hypothesis for this question stated: There is no relationship between students who depart UNC and perceptions of their customer service experience, while the alternate hypothesis assumed there is a relationship between students who depart UNC and perceptions of their customer service experience. The data reveal the null hypothesis is retained, however, business literature and various studies on customer service experience indicate this factor is influential when customer defection occurs.

The definition of customer service used in this study aligned operationally to the Mapworks survey. Therefore, the definition based on theory was: a framework as having both a process and an outcome (Fogli, 2006), and an organizational management strategy that stresses
specific activities designed to meet or exceed expectations so the customer is left with a sense of satisfaction while leading to a long-term relationship (Wagenheim & Reurink, 1991). This definition was operationalized as: based on the experience you have had during your first month being on the UNC campus, please rate your satisfaction with the level of customer service you received from UNC. The statistical significance of individual coefficients was tested using the Wald chi-square statistic. For the variable customer service, the p-value was reported as .993, consequently, the null hypothesis (where the coefficient equals 0) is retained. The customer service variable did not meet the alpha threshold in explaining departure, however, this variable has the possibility of being important in practice. Since the binary significant/non-significant conclusion is presented in this discussion, practitioners should not ignore this variable since it may be imperative and provide a variety of observed differences in future research (Gelman & Stern, 2006).

While customer service did not explain or predict departure in this study, the researcher adopts that the construct definition needed more construct validity. Construct validity is defined as the extent to which a test measures the intended construct (Bagozzi, Yi, & Phillips, 1991). The researcher suggests strengthening the customer service construct through one of the following methods: (1) ask 3-5 more questions as subscales as opposed to one question; (2) use more than one statistical tests to measure the construct to obtain stronger validity of the construct; (3) conduct confirmatory factor analysis which provides greater reliability and validity due to more diagnostic information about the construct. Other influences may have contributed to the findings such as the timing when the survey was administered and the potential that customer service encounters could not be assessed at that time. Lastly, it is possible participants may not have fully understood the terminology or may not have had positive or negative
customer service experiences; therefore, a better-formulated construct could provide more clarity for survey participants.

One of the key messages of this research consists of the perceived experiences of students. Institutions have a responsibility to become more responsive to the needs of students to further advance a link to the student experience. Tierney (1998) believed a responsive University emanates from a focus on the customer and a service orientation in which a University operates. Furthermore, Harvey and Knight (1996) described what they believe is a transformative model in higher education where there is a clear focus on the overall student experience. The conceptual framework of this research is based on relationship marketing, which is ultimately derived from the concept that greater and enhanced relationships produce sustainable and long-lasting relationships. This framework centers on genuine interactions that are transformational and moves away from customer manipulation, greed and conflict. Harvey and Knight’s (1996) ‘transformative approach’ aligns with the relationship marketing notion in which they describe as the necessity for a ‘range of interactions’ to occur in order for relational transformation to ensue.

It is often discussed in higher education that universities are not like businesses. However, over the past few years, institutions of higher education have had to respond using traditional business strategies in these times of crisis. Cutting costs, personnel layoffs, downsizing the organization, aspirations for more revenue, yet, institutions of higher education cannot seem to connect to sound business literature that calls for renewed relationships with its customers (students) as tantamount to organizational success. Perhaps what is occurring is the traditional habits and the reconfirmation of old opinions keep institutions in a traditional normative framework. Institutions need to step out of this context and begin to notice the
differences in higher education compared to years ago and form a connection to how Universities must operate today: observe, explore and act upon the experiences of a student from the student’s perspective.

One concept that has emerged in the last five years has been to reframe the thinking of who the student is today. Bill Sams (2010) discusses the controversial notion that instead of looking at a student as a person to whom something is done, that we look at the student as a person for whom something is done. One of the key questions Sams (2010) purports is that maybe it is not the students who have failed to perform but rather institutions of higher education. Additional perspective is rendered by author and theorist Rendón (1994). Her idea of validation underscores the notion that the student and the institution should be collectively supportive in the educational process. Rendón’s theory is traditionally related to marginalized or oppressed communities. However, the application of this theory may be pertinent to how students feel when interactions of poor service occur in or outside the classroom. The theory of validation places collective responsibility on the student and the institution as an important element of overall success. Furthermore, Rendón believes that the first few weeks of college influence the perceptions of the student experience. This is applicable to this research since the survey was conducted in the fourth and six week of the students first semester. In her 1994 study, Rendón (1994) found that early weeks of the first semester of college were critical for the student experience, and as a result, messages and actions of validation were important. In fact, students who did not have validating experiences were more likely to depart and not persist. As practitioners, this is an important aspect in terms of the context and the space in which students live.
Incorporating customer service orientation into higher education may be innovative since few institutions operationalize this well. In all cases, colleges and universities would not exist without their main stakeholder: the student. Students have a choice and the choice has become greater from which to choose. The idea of a customer service centric higher education model has many implications on culture and climate of the institution. Faculty and staff are critical to this strategy. The literature suggests one of the critical aspects of creating a service-centric culture begins with benchmarking the current state of service, as it is perceived by students. As Owlia & Aspinwall (1997) wrote, there is danger in disregarding the market and ignoring the needs of the students.

**Research Question 3: Do student expressions of their commitment to the institution predict student departure (binary) at the University of Northern Colorado?**

The null hypothesis for this question stated there is no relationship between students who depart UNC and their expressed commitment to the institution, while the alternate hypothesis assumed there is a relationship between students who depart UNC and their expressed commitment to the institution. The data reveal the null hypothesis is rejected and is consistent with the student affairs and enrollment research literature.

The definition of commitment used in this study aligned operationally to the Map works survey. Therefore, the definition based on theory was: early institutional commitment impacts student perceptions and behaviors such as retention or departure (Braxton, Hershey and McClendon, 2004). This was operationalized as the measurement of the student’s intent to complete a degree at UNC, their intent to return to the institution for the spring semester and their intent to return to the institution for the following academic year.
The statistical significance of individual coefficients was tested using the Wald chi-square statistic. For the variable commitment, the p-value was reported as .000, consequently, the null hypothesis (where the coefficient equals 0) is rejected. The commitment to the institution variable met the threshold in explaining/predicting departure. Hence, it was found that a student with a low level of commitment was 1.419 times more likely to be retained. The significance of the construct commitment was less than 0, proving the odds ratio found was significant. Therefore, a student who indicates low commitment to the institution is more likely to depart UNC than a student who demonstrates higher levels of commitment.

Upon exploratory analysis of the subscales, students with the lowest level of commitment exhibited the highest proportion of being dedicated to obtaining a degree, but significantly less committed to obtaining that degree at UNC. Furthermore, students that indicated a low level of commitment, over half displayed institutional fit as the primary influence to their commitment. Although not the focus of this research, pre-college assessment of the commitment factor may suggest that it is important to assess a student’s level of commitment to the institution at time of admittance. Results of pre-college assessment, related to commitment to the college or university, may be helpful in determining how best to guide the student. This notion is more intended to help with the social and economic costs of students erroneously entering an institution of higher education without having a strong level of commitment. The results of a study that looked at college commitment and attrition indicated commitment from a student and parents significantly relates to whether the students persists beyond the first year (Hackman, & Dysinger, 1970).

In further exploratory analysis, the researcher discovered over half of the students that reported low levels of commitment had plans to transfer even at the time when the survey was
administered. This further underscores the point of the importance of guiding students in a “best fit” direction prior to matriculating. In addition, since these data appeared to be actionable in the sense of seeking out more information from the students who state this intent, practitioners may be able to use concepts of relationship marketing in order to reverse the decision of the student’s desire to withdraw. Perhaps the student does not feel connected, from a social or academic integration perspective, and the development of a relationship/connection to student staff, peer mentors, faculty or other staff may have the student re-imagine the idea of withdrawing or possibly assist the student in their present decision and guide them in their next transition.

An important finding of this study contributes to more than the prediction of student departure, but begs the question: what is the institutional role in planning for attrition knowing that commitment demonstrates a relationship to departure? Offices that are responsible for the enrollment management function of the institution as well as the revenue planning of the university’s budget need to be cognizant of this factor. As previously mentioned in the literature review of this study, there are aspects of departure that administrators and practitioners must be mindful of related to this phenomena. As such, institutions need to be clear about what actions they are committed to taking based on the early warning signs from students who are least committed.

This study’s findings support the seminal research on student retention, persistence and departure and overall student success. The research points to more than commitment, and is inclusive of a sense of belonging and the overall experience that a student has with the institution (Braxton, 2000; Goodenow, 2006; Tinto, 1997; Swail, 2003). Moreover, the Cabrera (1993) model posits institutional commitment is directly influenced by the following variables: encouragement from family, financial aid, academic and social integration and intellectual
development. The importance of Cabrera’s (1993) model places emphasis on effecting institutional commitment (as the outcome variable) as opposed to solely looking at retention, departure or persistence as the outcome variable.

**Research Question 4:** Do student expressions of their overall satisfaction of the institution predict student departure (binary) at the University of Northern Colorado?

The null hypothesis stated there is no relationship between students who depart UNC and their expressed overall satisfaction of the institution, while the alternate assumed there is a relationship between students who depart UNC and their expressed overall satisfaction of the institution. The data reveal the null hypothesis is retained, however, this is not consistent with business literature and various findings on satisfaction.

The definition of satisfaction used in this study aligned operationally to the Map works survey. Therefore, based on theory, satisfaction was defined as: students’ expectations are used as a “screening mechanism” to evaluate their college experience (Kuh, Gonyea, & Williams, 2005). This was operationalized as the measurement of the student’s decision to choose UNC again, decision to recommend UNC to others, and their overall experience of UNC.

The statistical significance of individual coefficients was tested using the Wald chi-square statistic. For the variable satisfaction, the p-value was reported as .133, therefore, the null hypothesis (where the coefficient equals 0) is retained and the variable did not meet the threshold in explaining/predicting departure. The results indicate that a student whose overall satisfaction is less likely than commitment to the institution and more likely than customer service experience to depart the institution.

Upon exploratory analysis of the subscales, students who persisted reported favorably to choosing UNC again (if they had it to do over) and would recommend UNC to others who want
to attend college. This relationship is not surprising based on the literature review of this study. Astin (1993) indicates levels of satisfaction along with student perceptions determine if the student returns to the institution. In this case, UNC is rated favorable and it is the strength of these associations that make these subscales important when assessing students, especially if it has a modest relationship to departure as indicated in this study.

The significance of this particular factor, satisfaction, is discussed widely in the business literature and is typically referenced to or associated with service quality. Essentially, service quality is the measurement of the customer’s expectations and their perceptions of service performance (Palmer, 1998). Consequently, these expectations provide a baseline in which a customer assesses their level of satisfaction (Wright & O’Neill, 2002). The expectations of students have changed over the years. It is common for students to view their institution of higher education by how it responds and delivers according to their expectations, which ultimately leads to their affirmative approval. With the cost of education rising and students and families incomes reaching a ceiling, students are evaluating their experience based on these expectations. The one differentiating factor that has occurred most recently in the past five years has been the fact that the quality of service in the higher education sector now serves as a competitive advantage or disadvantage. Didomenico and Bonnici (1996) suggest college and universities need to become more student oriented, because student perceptions of the facilities and services are more important than ever before. Finally, Wright and O’Neill (2000) indicate the critical nature of these times and the necessity for institutions to enhance their evaluation, tracking, and management of student perceptions.

In a research study done at Azusa Pacific University (APU), student satisfaction and retention were analyzed (Schreiner, Noel, & Cantwell, 2011). The ultimate desire was to be able
to use factors of satisfaction and demographic characteristics in order to predict subsequent student retention for the following year. Although satisfaction is considered a predictor of student retention, great complexity exists relating to a student’s decision to stay or depart the institution. Results of this particular study at Azusa Pacific University had some relationship to this researchers study in that total predictive ability was moderate. Based on the timing of the APU study and the administration of the Map Works transition study, evaluating satisfaction may still be emerging. Future research in this area could lead to systematic assessment of this particular variable in order to determine appropriate interventions at a time when levels of satisfaction matter more to students.

*Research Question 5: Do student perceptions of their customer service experience and their expressed commitment to the institution predict student departure (binary) at the University of Northern Colorado?*

The null hypothesis stated there is no relationship between students who depart UNC and their customer service experience and their expressed commitment to the institution, while the alternate assumed there is a relationship between students who depart UNC and their customer service experience and their expressed commitment to the institution. The data reveal the null hypothesis is retained. The results indicate no evidence of an interaction was found between these two variables to the outcome variable, student departure.

While the least strong of the following tests of the interactions consisting of three two-way interactions, further exploratory analysis indicate positive relationships between customer service experience and the subscales within commitment: intent to return for spring and intent to return for the subsequent academic year.
Research Question 6: Do student perceptions of their customer service experience and their expressed overall satisfaction of the institution predict student departure (binary) at the University of Northern Colorado?

The null hypothesis stated there is no relationship between students who depart UNC and their customer service experience and their expressed overall satisfaction of the institution, while the alternate assumed there is a relationship between students who depart UNC and their customer service experience and their expressed overall satisfaction of the institution. The data reveal the null hypothesis is retained. Based on these results and the odds ratio was so close to one, the odds of departing were not significantly affected by these two variables. However, out of all three-way interaction tests performed, this test resulted in a significance stated at .164, and was closer to the significance threshold (p-value of .05 or less).

Research Question 7: Do student expressions of their commitment to the institution and overall satisfaction of the institution predict student departure (binary) at the University of Northern Colorado?

The null hypothesis stated there is no relationship between students who depart UNC and their expressed commitment to the institution and overall satisfaction, while the alternate assumed there is a relationship between students who depart UNC and their expressed commitment to the institution and overall satisfaction. The data reveal the null hypothesis is retained. A moderate relationship was seen between commitment and satisfaction. The results indicate no relationship was found between these two variables and the outcome variable, student departure.

Summary of the discussion. The topics of institutional commitment, overall satisfaction and customer service experience are present in the literature, but empirical studies of these three
variables, analyzed at the same time, were not found and especially related to the context of higher education. This research was designed intentionally as to not include the common variables found in most literature related to student retention or departure. Typically, models developed by theorists and researchers are inclusive of the common variables that most frequently predict retention. These variables are gender, race and ethnicity and socio economic status. The purpose for this research design was specifically to test institutional commitment, overall satisfaction and customer service experience constructs without the common variables influencing the outcome variable. To enhance this predicative model, future research can place these demographic variables in a model in order to look at the data from an equity perceptive. Studies specifically related to retention that are more inclusive of as many variables and interactions show greater understanding of the issue especially with the population of increasingly varied student populations (Reason, 2009). The point of inquiry most pertinent in the above findings is when and how do we assess ‘commitment’ practices and efforts, as opposed to the retention and persistence percentages. Retention and/or departure is a byproduct of campus efforts and not a variable that should be measured as a student success marker. Finally, all three variables complement each other well and have overlapping meaning. However, context may be different when operationalizing efforts or measuring effectiveness. The context of the business literature suggests measuring these and other variables in addition to qualitative stories in order to gain meaningful insight into the company’s operations, practice, culture and climate.

At the request of the researcher’s faculty committee, additional analysis was conducted on understanding the association of the dependent variable (departure) and other key variables commonly reflected in the literature. For this cohort, homesickness, social integration, peer
connectedness, time management, and financial means were noted as the top five factors with the strongest associations to the dependent variable. These factors are consistent with literature, but are also campus specific and dependent on demographic of the sample under study. These factors are relevant to the student and there is overlap to two of the three variables (commitment an satisfaction) measured in this particular research. Thomas and Yorke (2003) identify several factors that influence student’s decision to depart an institution: the presence of adequate student support before and during the first year; assessment of institutional climate; ability for early warning assessment to intervene when needed; engagement of students in the social aspects of the institution and connection to peers. The statistical test Eta provided a measure of effect size, or how large the effect of the variable to the dependent variable. Therefore, aside from commitment and satisfaction accounting for larger variation in a student being retained, the following factors contribute to departure in order of greatest variation: basic academic behaviors account for 21.7%; academic integration accounts for 21.4%; and homesickness accounts for 17.3%.

**Implications for Practice**

The basis of this research is grounded in relationship building, satisfaction, and the overall experience of students. The results of this research have honed in on the importance of institutional commitment as a primary factor in averting student departure. Student service professionals in enrollment management and student affairs units can utilize this research to further understand various ways in which connection to students can be made effective. One way to incorporate this is to be sure that once students arrive on campus, they are not forgotten about or left to navigate their own way. Practitioners, upper division student mentors and faculty of the campus can work in collaboration to support student success in a distinctive manner. A
prevailing theme that continues to resonate throughout this research is the notion that relationships matter. The following list incorporates the discoveries of this research and examines practical implications for consideration.

**Student Success Case Management Model**

The development of a Student Success Case Management Model (SSCM) intends to assist students who demonstrate low levels of institutional commitment. This is a model currently under consideration by UNC. The SSCM adopts best practice methods such as face-to-face interaction, mentoring, and relationship development. This would be accomplished through campus staff that serve as success coaches. Human intervention is key for this initiative and the model is most effective using a ‘case management protocol’ which is designed to partner with the students in order to manage barriers that are viewed as impediments to their success, provide an array of services, create targeted opportunities, and foster a sense of belonging. When students are shown a path and given assistance with avoiding obstacles, success rates increase (Wacker, 2014).

Using a ‘case management’ model, often found in the health care profession, staff from the campus community would serve as formal support or a ‘service broker’ (Cummings, 1973) for students in the low level of commitment category. The shared partnership of coach and student provides a formula for development and implementation of a success plan, which is individualized and accommodates the specific needs of the student. The overall intent is to create an environment in which conversations about academic, social and personal success grow organically. Since the staff, who serve as coaches, would be knowledgeable about students, their transfer of ‘college knowledge’ would be offered in advance before the student experiences pitfalls or barriers. The management literature discusses this as anticipatory service: the
responsibility for the service organization to anticipate the needs of the customer (Bolton, Kannan, & Bramlett, 2000). In this case, the coach is able to anticipate the needs of the student based on their familiarity, awareness and skill in working with students. The student and coach relationship fosters a relational continuum and steps away from merely transactional exchanges.

*The Campus Core*

The nature and culture of today's student calls for retail-like service expectations. Therefore, the goals for this concept is to reduce service related barriers and extend to students a campus service that offers an operation that is a single point of service but inclusive of the day-to-day service options they need for success. Most institutions already have a full range of support services that are aimed at helping students. However, it is the proactive nature of connecting students and organized method with the right services early that will impact unnecessary departure. In many instances, campuses create bureaucracies that influence the campus experience and produce unnecessary obstacles for students. The Campus Core begins with a comprehensive intake and evaluation of needed services and directs students appropriately. The elimination of runaround for students is critical for a positive experience and the concept of cross training of employees is also important for organizational success. The high use of technology and innovative communication approach may offer the student a level of service that more resembles a retail services industry. This way of operating will require an operational culture shift since typically, campus departments operate from a singular perspective. The culture of this collaborative and streamlined working behavior honors a single source of transformational service to the student by offering the core services of a campus in one location with an outcome of improved efficiency, consistency in the delivery of service, and overall quality experience for the student (Wacker, 2014).
Student Exit Survey

For campus to better understand their students, it important to ask questions and seek their input. However, similar to customer surveys that garner intelligence about what is working and what is not, an exit survey process is important to better understand why students contemplate departing the institution. Listening to the voices of withdrawing students will help the institution improve services and support for future students like them. “…the student is viewed as the customer, and the customer is the knowledge source about the performance of the university” (Codjoe & Helms, 2005, p.34).

Similar to the business culture wanting to know why customers choose not to re-purchase products, or select other brands, or defect to the competition, institutions should survey students upon withdrawal to gather departure intelligence. Many times an exit survey can alert campus officials to an issue that is occurring and at times the withdrawal or the intention to depart can be averted. In addition to the exit survey, a person managing each case can provide mentoring and guidance to students who are contemplating withdrawal and actively share this information with academic and student affairs units in order to find the best intervention for the student. A few outcomes can be identified by conducting an exit survey: (1) create student contact with individuals who may need to talk through their intention of withdrawal or no return; (2) utilize data from withdrawing student to improve experience, satisfaction and ultimately improve persistence odds for future students; (3) formulate a re-entry plan (depending on the situation) for students who depart and attempt to regain their commitment at a later time. In addition, the relationships that are developed through person-to-person interaction are much greater than a transactional computer based program that allows a student to easily withdraw or not return for the subsequent semester or year.
At times, organizations fail to observe their processes and practices from the perspective of the person they are serving. Since campuses are large and multifaceted, there are a number of advantages for a student shopper to evaluate university processes and services. The intent of this particular initiative is not meant to hurt the moral of staff working in student services areas, but envisioned to provide feedback on the type of service and experience observed by the student and relevant to very specific service standards expected by the institution. The market research literature introduces this concept as mystery shoppers (Douglas, & Douglas, 2006). The objective of this practice is to take individuals through the normal day of the customer in order to experience and measure the service encounter and report back the observations (Calvert, 2005). This practice is not common in higher education. Campuses are more accustomed to gathering feedback from students in traditional ways, such as focus groups or attending sessions where students have a formalized meeting such as student government or clubs and organizations. The challenge with this is these forums may not represent the student body as a whole and perhaps may be a homogenous group of students that are inferring and generalizing for the whole student body. Broad focused student satisfaction surveys and focus groups provide retrospective perceptions of service at typically a later point in time and with less specificity about service. When facilitated appropriately, a student shopper program can (1) foster collaborative assessment with a common goal of maintaining high quality; (2) recognize exceptional service by staff; and (3) identify professional practice needs of staff.

Conduct periodic assessment

UNC has established several ambitious enrollment goals through 2018. In particular, UNC’s enrollment plan calls for increases in persistence, degree completion, and overall
undergraduate headcount. This type of enrollment growth plan will require new approaches informed by actionable data and information. The Voice of the Parent and Voice of the Student initiative is one of several data gathering and service strategies a university can implement to improve the overall understanding of the undergraduate experience on campus. This strategy is employed in profitable businesses and industries where customers are invited to provide feedback and input about products and services sometimes via online communities or through structured focus groups. The benefit to the customer can be access to special benefits, discounts or product releases. The benefit to the organization is information about customer opinion on any range of products or services offered. It is clear that this idea is not “business-as-usual” in higher education. However, higher education has long operated on the principle that “if we open the doors, they will come”. Emerging research shows that a majority of Americans ages 18 and older (57%) seriously question the value of a college education and an even larger majority (75%) say college is too expensive (Taylor, Parker, Fry, Cohn, Wang, Velasco, & Dockterman, 2011). Examples of potential outcomes could be aligned in the following manner:

1. Engage students and their parents in conversations about their experiences with all aspects of service delivery;
2. Understand how to communicate with students and parents effectively and learn how to improve communications of all types;
3. Test out new marketing strategies. For example, what did they want to see in the UNC marketing material that wasn’t there? What do they want to know as enrolled students? What can we improve upon for future students? Perhaps this begins to encompass hitting a “sweet spot” related to enrolling students and parents in the idea of a greater commitment to UNC.
In the higher education climate, it is increasingly necessary for institutions to better understand what our students and parents are thinking, build relationships, and engage them in genuine conversations. The national opinion about the value of college cannot be changed, but institutions can respond to positive or constructive feedback by asking students and their families how the campus is adding value and that is what this type of periodic assessment is imagined to do.

Culture of Care

Through the development of a culture of ‘care’ on a college campus, it is imagined that students begin to report higher levels of satisfaction, stronger connections to campus, increased sense of belonging, and overall improved commitment to the institution. This is analogous to an organizational culture that Allaire and Firsatro (1984) describe as a system of knowledge, of standards for perceiving, believing, evaluating and acting . . . that serve to relate human communities to their environmental settings. Consistent with the outcomes of this research, a culture of care is relationship-based. Cavanagh (2008) describes this type of culture as one that emphasizes unity, a sense of community, and ultimately caring about relationships. Perhaps one of the underlying assumptions that a college campus should have is that levels of care exist within the community. However, does a culture of care drive decision-making and what does it mean to take this notion to the next level? A culture of care is not a marketing gimmick. It is not “service with a smile”. A culture of care allows people to keep control of their lives, where they have choice, dignity and inclusion. A culture of care revolves around a pedagogy of relationships, and care for the individual and problems are viewed as learning opportunities instead of a time to point out what has been done wrong (Cavanagh, 2008). A key variable in ensuring this type of culture is practicing empathy. Empathy, when operationalized in the
business sector allows the organization to study customers so that the organization can intuitively respond to their needs, and values them as individuals (Patnaik, 2009). Leaders of organizations should operationalize this culture through various artifacts that allow for accountability and thorough implementation. First and foremost, there must be a demonstrated mission, vision and values statement that articulate the expectations of this culture. Secondly, goals (through planning and evaluation documents of every employee) should align with the mission and vision and state measurable objectives that reflect acting out a culture of care. Third, one-to-one meeting and performance reviews should consist on measuring the objectives and talking through the actions related to the culture of care environment. Fourth, training schedules for new and seasoned employees should be established where key aspect of this culture are discussed and input is garnered from employees in order to create buy-in, trust and sense of ownership of the culture. An aspect that is key to demonstrating a culture of care is simple on boarding practices for new employees. This is a time where staff can learn of the culture as well as become coached in the important items of their new job. Finally, instructional and training aspects of a culture of care must be balanced with a recognition system that rewards the behavior and reinforces when the culture of care is practiced.

*Statewide Commitment Indicator*

Perhaps the most innovative and futuristic initiative begins with assessing each college going student in the state of Colorado. The assessment would focus on each student’s level of commitment so that a ‘commitment indicator’ can be produced. The algorithmic calculation would encompass variables such as cognitive and non-cognitive variables, community involvement, ability or willingness to pay, and desired career goals. Since each college or university has defining characteristics and various value propositions, the results of the
‘commitment indicator’ could be matched with the college or university fit indices. Developing an accurate profile of a student’s commitment type would produce recommended institutions in which the student could be successful based on the numerous defining characteristics institutions possess. Similar to career interest surveys or the most popular Myers-Briggs Inventory that generate outputs on careers, personality traits, relationship, etc., this process of identifying an institution of higher education could be helpful to students and families.

Overall, this research study not only confirms varied aspects of the literature, but it has the potential to change the way in which institutions view student departure. The study offers an opportunity to view the entire student experience with a relationship-oriented lens. It demonstrates there are a variety of practices if operationalized appropriately, could have a positive effect on several phases of the student college lifecycle:

- Input: student recruitment
- Throughput: early intervention and organizational culture
- Output: persistence and graduation; satisfied and loyal alumni

**Limitations**

There are a number of limitations related to the design of this study. First, the variables that were measured used a self-report instrument. Since self-report instruments require the individual to respond to questions about themselves, the researcher must rely on the honesty of the participants. Second, participants may not fully understand or interpret particular questions which may skew responses to the questions or questions may simply not be answered. Third, response bias may occur and this happens based on the way the individual wants to respond versus the way they should respond. This especially happens when questionnaires asked about
personal experiences. For the variables in this study in particular, respondents needed to be honest and forthright on the questions that were asked.

Based on the results of the individualized measurement of customer service and overall satisfaction, it was expected that these variables would have greater significance on departure than what was realized. However, the Map Works transition survey was administered between the fourth and sixth week of the first semester, which may be too early to determine levels of satisfaction, and customer service experience. Secondly, it is likely that respondents may not have fully understood the operationalized definitions of customer service experience, institutional commitment, and overall satisfaction. As indicated in the literature, these constructs have overlapping meaning and different constructs mean different things for different individuals. Somewhat related, there may be cross culture variation in the interpretation and this is important when doing a study of this nature. For example, when a campus has a globalized student body or consists of diversity such as race, first generation status and socio economic characteristics.

Although the intent of this research study was to measure three different variables and their relationship to the outcome variable, this study would benefit from qualitative research in which individual stories and lived experiences be explored. This research would also provide a better understanding to the complex nature of student departure. When a researcher has the ability to ask further questions and obtain deeper meaning about the varying experiences indicated by the student, perhaps the results would offer a more comprehensive story and not simply a calculated measurement.

The research only examined one institution of higher education, one cohort of students and measured one year as opposed to multiple years. The findings of this study were not
intended to be generalized to all other universities; therefore, it is important for other institutions to mirror UNC’s enrollment indicators, size, demographics and other characteristics for this research to be helpful. Conducting a longitudinal analysis would provide a more robust predictive model. Furthermore, analysis not limited to first year student departure, but include sophomore through senior level divisions would assist institutions on many levels of enrollment planning and fill a gap in the literature.

Finally, there was a unique and systematic ‘no response’ to individual items within the variables relevant to this study. Although there was not an abnormal level of missing data that influenced the quality of the data, it is important to note this as a limitation and future analysis related to this phenomenon would be beneficial.

**Future Research**

The Map Works transition survey has a high response rate, however, there needs to be a stronger push to obtain completion of all items within the Map Works survey. Since the results of the Map Works transition survey directly informs practice it will be important for individual factors and subscales to be answered by the participant. Research indicates participants want to be socially desirable which may influence individual responses to questionnaires (Randall & Fernandes, 1991). Since the Map Works transition survey is not anonymous and many of the questions are personal, students may not have chosen to respond to various item level questions. Perhaps a future study would entail a deeper exploration of non-responder participants in order to determine if this behavior is an additional predictor variable to departure; or if recruitment efforts at the high school were different, geographical location or other influences encouraged withdrawal from the institution.
In this same vein of a sociological or psychological perspective, culture and climate of the campus may have more influence than what the scope of this research intended to study. When looking at other variables of climate and culture of a campus, a variety of college experiences influence satisfaction in a multitude of ways. This is especially imperative for students of color. In a study conducted by Park (2009), she suggests disproportionate levels of satisfaction from students of color, compared to white students, are due to different thoughts on what satisfaction means to them. Overall, community, peer interactions, and level of campus diversity mattered more and were predictors of retention for students of color. Perhaps a limitation to this research on departure did not differentiate methodological approach across student subgroups. Therefore, future research would be to explore factors of climate, as it relates to various subgroups, and the relationship to student departure.

Another future research opportunity would be to study the students who did not take the survey. It is unknown if these students have a relationship to any of the three variables or not. Perhaps the students perceive the survey as not necessary or view themselves as more prepared and simply don’t want to be associated with the institution any more than what is required of them. Secondly, there are a number of students who depart prior to the survey being administered. At some point these students made a level of commitment that resulted in their moving from their home to campus and beginning school. However, prior to the fourth week, they made a decision to drop courses and depart the institution. Although there may be several complexities to this issue, it would be important to identify what variables were most at play in determining their departure.

Specific to populations, the study would benefit researching gender and the ‘loss male’ phenomena. The odds of a male departing are two times greater than the odds for females.
departing an institution of higher education (Ishitani, 2006). This is important since nationally, there has been, and continues to be, an issue related to male student dropout behavior in which females are more likely to persist than males (Ishitani & DesJardins, 2002).

Finally, the idea of customer service has merit but the theory of customer service and related constructs of loyalty, satisfaction, and service quality in the higher education context has to be further explored. Each of the constructs should be precisely defined and the importance of design and timing should be taken into consideration.

Conclusion

Institutions of higher education are currently facing significant change in today’s environment, which is forcing higher education and its culture to consider new ways of thinking. The information developed from this study provided valuable consideration for practitioners and administrators of the enrollment management and student affairs profession. The use of quantitative research design, and, as indicated in the future research section, a qualitative feature to this study benefits an institution of higher education in many ways. From resource planning and budgetary decision-making, and the overall vibrancy of a campus, enrollment planning for an institution is complex and will continuing to be more convoluted as time evolves.

Since tradition in higher education is common throughout many institutions, thinking differently and operating in the new normal is a challenging endeavor especially for many that have embraced traditional concepts and practices. Adherence to this new way of operating calls for student affairs and enrollment management practitioners to approach their work with an adjusted normative framework. Students and environmental factors will continue to become more complex; therefore, we cannot expect the traditional ways to continue to work. This research used three factors derived from the map works transition survey. It is clear from the
predictive model institutional commitment is a strong predictor of student departure. Since this variable is identified between the fourth and sixth week of a first year students’ semester, this indicator should serve as an early warning for the university therefore the institution should engage with the student more intentionally in hopes of leading to a positive outcome.

In order to improve the student experience and effectively influence this outcome, institutions should work from a systems perspective and reduce campus silos. Used as an overarching framework in diverse fields such as physics, biology and anthropology (McMahon and Patton, 2006), systems theory or systems thinking can provide a framework and structure toward the development of systemically moving the campus collectively. Based on the fundamental tenets of system theory, the particular topic of this research, student departure, can be viewed as a systematized effort with interrelated actions that provide a good formula for an institution to reach its outcomes of retaining students. Moreover, with an integrated approach, student departure may serve as an indicator of the social and intellectual well-being of the institution as much as the students' experiences (Tinto, 1993) and by systematically looking into these indicators with the systems-thinking lens provides abundant opportunities for evaluation.

Since many “critical points of instability” (Capra, 2005, p.6) are occurring in higher education, the approach in which campuses work with students needs to be addressed through a coordinated and collective effort.

In today’s environment, higher education needs to be looked at from the perspective of the marketplace. Some institutions may need fine-tuning and others may need a fundamental overhaul. Today’s competitive economy will not change; therefore, higher education must make use of the lessons learned from the private business sector. Institutions can no longer be perceived to be out of touch with students, and with student departure rates for students who do
not complete their degrees as high as they are, there is a more global implication at hand. It is possible institutions are not meeting the needs of students; therefore, service from all levels should be open for review. It is imperative for institutions of higher education to become more thoroughly student driven and student centric. The private sector has time proven operating practices that are both pertinent and transferrable to higher education including to remain in close contact with the customer, always assess the customer experience, anticipate the needs of future services, continuously evaluate and improve service delivery, and most of all maintain long-term relationships (McNay, 1995). These practices are essential for successful enrollment management in higher education and developing a positive experience for students.
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Gunter Hall, Greeley, CO.


Appendix: MapWorks First Year Transition Survey

MAP-Works: Fall Transition

Printable Survey Version. Data Entered On This Page CANNOT Be Saved.

Which best describes your mother’s father’s guardian’s highest level of education?

Please Select...

Which best describes your father’s mother’s guardian’s highest level of education?

Please Select...

How many high schools did you attend?

Please Select...

How many dependents (children 18 years old or younger for which you have responsibility) live in your home?

Please Select...

Are you a student athlete (i.e. on an institution sponsored athletic team) at this institution?

Please Select...

What is your current residence?

Please Select...

Have you ever served in the Armed Forces of the United States?

Please Select...

Level of Commitment

To what degree are you committed to completing a:

Degree/certificate/license

Degree/certificate/license at this institution

Not at all 1 2 3 Moderately 4 5 6 Extremely 7 Not Applicable

What is the highest level of education you aspire to achieve?

Don’t know or undecided Associate’s degree Bachelor’s degree Master’s degree

Ph.D., M.D. or other professional degree Prefer not to answer
## Intent to Return

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<th>To what degree do you intend to come back to this Institution for the:</th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>Extremely</th>
<th>Not Applicable</th>
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If you do not return to this institution next term, which of the following best describes your plan:

- I do not plan to attend any college or university
- I plan to take some time off and come back to this institution in the future
- I plan to transfer to another institution
- Study abroad opportunity or co-op/internship away from this institution
- Graduating/completing certificate/licensure
- Other (Specify Below)

**Did you intend to transfer when you entered this institution?**

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<th>Yes</th>
<th>No</th>
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If you decide to transfer to another institution, what would be the most likely reason?

- Wanted a different location (e.g., closer to family or friends, city vs. rural, etc.)
- Wanted a different academic program (changed majors, your major isn’t offered here, etc.)
- Financial issues (too expensive, get more financial aid somewhere else)
- Wanted a different academic environment (smaller classes, easier classes, more difficult classes)
- Wanted to play a sport at a different Institution
- Pursue a degree not offered at this institution (i.e. master’s degree, bachelor’s degree, associate’s degree)
- Was not accepted into academic program of choice (e.g., nursing school, architecture school, etc.)

Other reasons (Specify Below)

If you know, please indicate to which institution you plan to transfer:

### Financial Means

What percentage of your financial need is being met through financial aid (loans, grants, scholarships)?

- Not receiving financial aid and don’t need financial aid
- Not receiving financial aid but need financial aid
- About 25%
- About 50%
- About 75%
- All or nearly all
- Don’t know
To what degree are you confident that you can pay for:

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<th>5</th>
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<th>Extremely</th>
<th>Not Applicable</th>
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<td>Next term's tuition and fees</td>
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<td>Social activities (e.g. eating out,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>going to movies) with your friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Self-Assessment of Academic Skills**

How would you rate yourself on the following skills:

<table>
<thead>
<tr>
<th></th>
<th>Very poor</th>
<th>Poor</th>
<th>Fair</th>
<th>Average</th>
<th>Good</th>
<th>Very good</th>
<th>Excellent</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing composition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading comprehension</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math ability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem-solving skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Self-Assessment of Management Skills**

To what degree are you the kind of person who:

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Extremely</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is self-disciplined</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follows through with what you say</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>you're going to do</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is dependable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plans your time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Makes &quot;to-do lists&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balances time between classes and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>other activities (work, student</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>activities, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Self-Assessment of a Healthy Lifestyle**

To what degree do you:

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Half the time</th>
<th>Always</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep enough (i.e. not tired most</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>days)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exercise the amount of time to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>remain physically healthy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Academic Experiences**

How many courses are you taking?

[Please Select...]

Of those, how many courses are you struggling in?

[Please Select...]

**Struggling in a Course**

Regarding the course you're having the most difficulty with, to what degree are you struggling

<table>
<thead>
<tr>
<th></th>
<th>Extremely</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderately</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Not at all</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Regarding the course you're having the most difficulty with, to what degree:

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderately</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Extremely</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you talked with your instructor regarding your difficulties</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you turned in assigned homework</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you done the required readings</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regarding the course you're having the most difficulty with, based on your current performance what would your grade be?

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td>Don't know</td>
</tr>
</tbody>
</table>

Regarding the course you're having the most difficulty with, what type of course is it?

<table>
<thead>
<tr>
<th></th>
<th>Course is in your major</th>
<th>Course is not in your major</th>
<th>You have not selected a major</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please identify the course in which you are having the most difficulty (ex: English 101):

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

Class Attendance

How many of your scheduled classes have you attended this term?

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I attended all my classes</td>
<td>I missed one class</td>
<td>I missed a few classes</td>
<td>I missed class frequently</td>
</tr>
</tbody>
</table>

I missed class most of the time

Interference with Coursework

To what degree are the following factors interfering with your ability to complete coursework (e.g. attending class, studying, homework, practice):

<table>
<thead>
<tr>
<th></th>
<th>Extremely</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderately</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Not at all</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family obligations</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work obligations</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Academic Self-Efficacy

To what degree are you certain that you can:

<table>
<thead>
<tr>
<th></th>
<th>Not at all certain</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderately certain</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Absolutely certain</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do well on all problems and tasks assigned in your courses</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do well in your hardest course</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persevere on class projects even when there are challenges</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Academic Resiliency
To what extent do the following statements describe you:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Half the time</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>You do everything you can to meet the academic goals you set at the beginning of the semester</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>You are a hard worker in your classes</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>When you know a course is going to be difficult, you put in extra effort</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>When you get a poor grade, you work harder in that course</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
</tbody>
</table>

**Expected GPA**

What do you think your GPA will be this term?

- GPA of 3.50 or higher (Mostly As)
- GPA of 3.00 to 3.49 (Mostly Bs)
- GPA of 2.50 to 2.99 (Some Bs and Cs)
- GPA of 2.00 to 2.49 (Mostly Cs)
- GPA less than 2.00 (Lower than Cs)

What do you think your cumulative GPA will be when you complete your degree/certificate?

- GPA of 3.50 or higher (Mostly As)
- GPA of 3.00 to 3.49 (Mostly Bs)
- GPA of 2.50 to 2.99 (Some Bs and Cs)
- GPA of 2.00 to 2.49 (Mostly Cs)
- GPA less than 2.00 (Lower than Cs)

**Academic Behaviors**

To what degree are you the kind of person who:

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Half the time</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attends class</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Takes good notes in class</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Turns in required homework assignments</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Spends sufficient study time to earn good grades</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Participates in class</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Communicates with instructors outside of class</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Works on large projects well in advance of the due date</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
</tbody>
</table>

**Advanced Study Skills**

To what degree are you the kind of person who:

<table>
<thead>
<tr>
<th>Skill</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderately</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studies in a place where you can avoid distractions</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Studies on a regular schedule</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Reads the assigned readings within a day before class</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
</tbody>
</table>

**Stressors**
Thinking about your role as a college student, to what degree do you know:

- What is expected of you in your classes to be successful
- How to allocate the correct amount of time to meet each of your obligations (e.g. social life, work life, family, student organizations, coursework)

<table>
<thead>
<tr>
<th>Degree</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderately</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Extremely</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thinking about your role as a college student, to what degree do you feel:

- You are unable to balance major commitments in your life (e.g. studying, social life, relationships, working, etc.)
- There is not enough time during the regular school week to do everything that is expected of you

<table>
<thead>
<tr>
<th>Degree</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderately</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Not at all</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

To what degree are you experiencing stress regarding:

- Being responsible for yourself (e.g. getting to class, doing your homework, etc.)
- Motivating yourself to get your work done on time

<table>
<thead>
<tr>
<th>Degree</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderately</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Not at all</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When you have a test, to what degree do you:

- Have an uneasy, upset feeling before taking an examination
- Feel anxious about an exam even when you're well prepared
- Perform worse on exams because you're worrying that you'll do badly

<table>
<thead>
<tr>
<th>Degree</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderately</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Not at all</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Study Hours

**How many hours, on average, did you spend studying for a test in high school?**

Please Select...

**How many hours, on average, do you expect to spend studying for a test in college?**

Please Select...

### Study Hours

**How many hours, on average, did you spend studying for a test during your last college term?**

Please Select...

**How many hours, on average, do you expect to spend studying for a test this college term?**

Please Select...
**New Student Information**

Among the institutions that admitted you, was this institution your:

<table>
<thead>
<tr>
<th>First choice</th>
<th>Second choice</th>
<th>Third choice</th>
<th>Lower than third choice</th>
</tr>
</thead>
</table>

**Your high school cumulative GPA:**

- GPA of 3.50 or higher (Msbly As)
- GPA of 3.00 to 3.49 (Msbly Bs)
- GPA of 2.50 to 2.99 (Some Bs and Cs)
- GPA of 2.00 to 2.49 (Msbly Cs)
- GPA less than 2.00 (Lower than Cs)

**How many years has it been since you were in an educational setting (high school, technical school, or college)?**

- Entered this school immediately from high school
- 1 to 5 years
- 6 to 10 years
- 11 to 15 years
- 16 to 20 years
- More than 20 years

**Campus Involvement**

<table>
<thead>
<tr>
<th>During this term, to what degree do you intend to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participate in a student organization</td>
</tr>
<tr>
<td>Hold a leadership position in a college/university student organization</td>
</tr>
</tbody>
</table>

**Peer Connections**

<table>
<thead>
<tr>
<th>On this campus, to what degree are you connecting with people:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who share common interests with you</td>
</tr>
<tr>
<td>Who include you in their activities</td>
</tr>
<tr>
<td>You like</td>
</tr>
</tbody>
</table>

**On-Campus Living**

<table>
<thead>
<tr>
<th>To what degree are you:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hanging out with other residents</td>
</tr>
<tr>
<td>Making friends with others in the hall/building</td>
</tr>
<tr>
<td>Satisfied with the social activities in your hall/building</td>
</tr>
<tr>
<td>Adjusting to living in on-campus housing</td>
</tr>
<tr>
<td>Able to study in your room/tall</td>
</tr>
<tr>
<td>Able to sleep in your room</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
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</tr>
</tbody>
</table>
How many people are assigned to live in your bedroom (including yourself)?

<table>
<thead>
<tr>
<th></th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>More than three</th>
</tr>
</thead>
</table>

On-Campus Roommates

<table>
<thead>
<tr>
<th>To what degree do your roommate(s):</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderate</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Extremely</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respect your sleep time</td>
<td></td>
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<tr>
<td>Respect your property</td>
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</tbody>
</table>

Overall, to what degree are you having problems with your roommates

<table>
<thead>
<tr>
<th>Serious problems</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderate problems</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>No problems</th>
<th>7</th>
</tr>
</thead>
</table>

Off-Campus Living

When are you predominately on-campus?

<table>
<thead>
<tr>
<th>Days before 5pm</th>
<th>Evenings after 5pm</th>
<th>Both days and evenings</th>
<th>Never or rarely - I take courses online</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>To what degree are you:</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderate</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Extremely</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Able to study in your room/home</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Able to sleep in your room/home</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Satisfied with your overall living environment</td>
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<tr>
<td>Able to find parking on campus</td>
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</tbody>
</table>

Is there a convenient place on campus for you to relax between classes?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>To what degree do transportation issues interfere with your ability to attend class or arrive on time to class</th>
<th>Extremely</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderate</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Not at all</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
</table>

Please specify other factors that interfere with attendance or completing your coursework:
Are you living away from home?
- Yes
- No

### Homesickness

<table>
<thead>
<tr>
<th>To what degree do you:</th>
<th>Extremely</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderately</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Not at all</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miss your family back home</td>
<td></td>
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<tr>
<td>Miss your old friends who are not at this school</td>
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<tr>
<td>Miss your boyfriend/girlfriend who is not at this school</td>
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<tr>
<td>Regret leaving home to go to school</td>
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<td>Think about going home all the time</td>
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<tr>
<td>Feel an obligation to be at home</td>
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<tr>
<td>Feel that attending college is pulling you away from your community at home</td>
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</table>

### Parents/Guardians

**How many times have you communicated with your parents/guardians (i.e., phone call, text message, email, etc.) within the past seven days?**

- Please Select...

### Campus Activities

**During this term, to what degree do you intend to get involved in:**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderately</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Extremely</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campus or community service organizations</td>
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<tr>
<td>Intramural athletics</td>
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<tr>
<td>Major/academic field organizations</td>
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<td>Music, drama and arts organizations</td>
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<td>Political organizations</td>
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<td>Racial or ethnic organizations</td>
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<tr>
<td>Religious organizations</td>
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<tr>
<td>Special Interest organizations</td>
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<tr>
<td>Student government</td>
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<tr>
<td>Student media (radio, tv, newspaper)</td>
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</table>

### Academic Major
Have you decided what your major/program is or will likely be?
- Yes
- No

Have you officially declared your major/program with this institution?
- Yes
- No

How many credit hours have you completed in your major/program?
- None
- 1 to 5 hours
- 6 to 10 hours
- 11 to 15 hours
- More than 20 hours
- Don't know

Did you have to be accepted by your college/school in order to complete a degree/certificate in your major/program (e.g., Nursing school, Architecture school, Engineering school)?
- Yes
- No

If yes, what would likely happen if you weren't accepted into your major/program?
- Don't need to be accepted or already accepted
- Reapply for acceptance next term
- Change majors but stay at this institution
- Transfer to another institution
- Don't know
- Other (Specify Below)

Academic Major Connections
Do you intend to graduate with more than one major?
- Yes
- No
- Don't know

Which area best represents your primary intended major/program?

| Agriculture (i.e. Plant and Soil Sciences, Animal Studies, Natural Resources, Parks, etc.) | Biological Sciences (i.e. Biomedical, Botany, Biology, Physiology, etc.) | Business (i.e. Management, Marketing, Accounting, etc.) | Communications (i.e. Journalism, Communications, Public Relations, Media Studies, etc.) |
| Computer and Information Sciences | Education (i.e. Elementary Education, Special Education, Physical Education, etc.) | Engineering and Technology (i.e. Electrical, Mechanical, Eng Technology, Construction, etc.) | Family and Consumer Sciences (i.e. Nutrition, Fashion/Interior Design, Human Development, Family Studies, Hotel/Restaurant Management, etc.) |
| Health Professions (i.e. Nursing, Physical Therapy, Pre-Med, Occupational Therapy, Health/Fitness, etc.) | Humanities (i.e. Foreign Languages, Literature, Linguistics, Gender Studies, Philosophy, Religious studies, English, History, etc.) | Math, Physical Sciences (i.e. Mathematics, Physics, Chemistry, Geology, Geography, etc.) | Professional (i.e. Architecture, Legal, etc.) |
| Social Sciences (i.e. Psychology, Economics, Political Science, Sociology, Social Work, etc.) | Visual and Performing Arts (i.e. Dance, Theatre, Music, Art, etc.) | Major is not listed here |  |
Have you discussed your potential major/program with an academic advisor, faculty member, or career advisor?

Yes       No

<table>
<thead>
<tr>
<th>To what degree are you:</th>
<th>Not at all</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Committed to your major/program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making connections with faculty in your major/program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making connections with other students in your major/program</td>
<td></td>
<td></td>
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</tbody>
</table>

Academic Major Satisfaction

Considering the courses in your major/program, how satisfied are you with:

- The availability of those courses
- Grades accurately reflecting your level of performance
- Accessibility of instructors outside of class
- Quality of teaching in your major/program courses
- Feedback on assignments (other than grades) received from instructors

What is your cumulative GPA in your major/program?

- GPA of 3.50 or higher (Mostly As)
- GPA of 3.00 to 3.49 (Mostly Bs)
- GPA of 2.50 to 2.99 (Some Bs and Cs)
- GPA of 2.00 to 2.49 (Mostly Cs)
- GPA less than 2.00 (Lower than Cs)
- Haven’t taken classes in my major yet
- Don’t know

To what degree are you experiencing stress regarding choosing a major/program?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Not applicable</th>
</tr>
</thead>
</table>

Academic Planning

To what degree are you able to:

- Understand what is expected from you in your courses
- Create a course plan to meet your graduation requirements

Engaged Learning Experiences
To what degree are you interested in the following activities:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Not Interested</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderately Interested</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Extremely Interested</th>
<th>7</th>
<th>Already Participated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studying abroad</td>
<td>○</td>
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<tr>
<td>Research with a faculty member</td>
<td>○</td>
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<tr>
<td>Mentoring students</td>
<td>○</td>
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<tr>
<td>Tutoring other students</td>
<td>○</td>
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<tr>
<td>Internship/co-op/practicum</td>
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</table>

Career Planning

Have you interacted with career services at this institution?

Yes  No

<table>
<thead>
<tr>
<th>To what degree do you need assistance with:</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderately</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Extremely</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploring careers</td>
<td>○</td>
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<tr>
<td>Writing resumes and cover letters</td>
<td>○</td>
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<tr>
<td>Interview skills</td>
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<tr>
<td>Searching for jobs</td>
<td>○</td>
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<tr>
<td>Searching for graduate schools</td>
<td>○</td>
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</tbody>
</table>

Have you selected a career path?

Yes  No

<table>
<thead>
<tr>
<th>If yes, to what degree are you committed to your career path</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Moderately</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Extremely</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>○</td>
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</table>

If yes, what career path have you selected?

Planned Time

In an average day, how many hours do you spend sleeping on nights before classes?

Please Select...

In an average day, how many hours do you spend relaxing or socializing?

Please Select...
In an average week, how many hours do you spend working for pay?

<table>
<thead>
<tr>
<th>Hours</th>
<th>1 to 5 hours</th>
<th>6 to 10 hours</th>
<th>11 to 15 hours</th>
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</thead>
<tbody>
<tr>
<td>0</td>
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<tr>
<td>16</td>
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<td>20</td>
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</tbody>
</table>

In an average week, how many hours do you spend studying/out-of-class school work (e.g. homework, practice time, lab time, studying)?

In an average week, how many hours do you spend exercising or playing sports?

Overall Adjustment

<table>
<thead>
<tr>
<th>Item</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, to what degree are you?</td>
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<td></td>
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<tr>
<td>Keeping current with your academic work</td>
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<tr>
<td>Motivated to complete your academic work</td>
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<tr>
<td>Learning</td>
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<tr>
<td>Satisfied with your academic life on campus</td>
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</tbody>
</table>

Overall, to what degree:

<table>
<thead>
<tr>
<th>Item</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you belong here</td>
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<tr>
<td>Are you fitting in</td>
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<td></td>
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<tr>
<td>Are you satisfied with your social life on campus</td>
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</tr>
</tbody>
</table>

Overall Evaluation of the Institution

<table>
<thead>
<tr>
<th>Item</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, to what degree:</td>
<td></td>
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</tr>
<tr>
<td>Would you choose this institution again if you had it to do over</td>
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<tr>
<td>Would you recommend this institution to someone who wants to attend college</td>
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</tbody>
</table>

Overall, please rate your experience at this institution:

<table>
<thead>
<tr>
<th>Rating</th>
<th>Very poor</th>
<th>Poor</th>
<th>Fair</th>
<th>Good</th>
<th>Very good</th>
<th>Excellent</th>
<th>Exceptional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

Comments
What do you like most about college?

What do you like least about college?

Name the person at this institution who has helped you the most in your college success:

Post Graduation/Completion Plans
Are you graduating or completing your certificate/licensure this academic year (fall or spring term)?

Yes
No
Not sure

What are your employment/education plans immediately after graduation/completion?

Continuing education (e.g., graduate/professional, undergraduate, certificate program)
Full-time work and not continuing education
Work and continuing education
Military service
Don't know
Prefer not to answer
Other (Specify Below)

Have you verified your degree program to ensure that you will have completed all of your requirements necessary to graduate this term?

Have verified my degree program and on track to graduate this term
Have verified my degree program and on track to graduate next term
Have not verified my degree program

If planning to continue your education after graduation/completion, which best describes your intent?

Beginning a graduate program
Beginning or continuing a baccalaureate program
Beginning a certificate program
Not planning on continuing my education now
Other (Specify Below)
If planning to continue your education, where are you in the application process:

- I have not searched yet
- I have been accepted but have not confirmed
- I have been accepted and have notified them that I'm attending
- I have chosen where I am applying
- I have applied

If planning to be employed full-time, which best describes your current stage in the search process:

- I have not searched yet
- I have researched fields of interest
- I have applied but have not had any interviews yet
- I have interviewed but have received no offers
- I have been offered a position and have accepted it

If you have accepted a position, does the position relate to your major?

- In my major
- Related to my major
- Not related to my major
- Have not accepted a position

**Student Athlete**

Is this your first term as a NCAA/NAIA student athlete at this institution?

- Yes
- No

Are you actively training for your sport now?

- Yes
- No

Which term is your sport predominantly played:

- Fall
- Winter
- Spring

During this term, how many hours on average per week do you expect to spend on your sport (i.e. conditioning, training, traveling for games or events, playing your sport):

- None
- 1 to 5 hours
- 6 to 9 hours
- 10 to 15 hours
- 16 to 20 hours
- 21 to 25 hours
- More than 25 hours

What percentage of your tuition/fees/living expenses is covered by an athletic scholarship?

- None
- About a quarter
- About half
- About three-quarters
- All or nearly all
To what degree do you feel the following will happen this term:

<table>
<thead>
<tr>
<th></th>
<th>Extremely</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Not at all</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miss class due to your student sport activities (i.e. conditioning, training, traveling for games or events, playing your sport)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have difficulty balancing your study time with the time spent on your student sport activities</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you do not get sufficient playing time at this institution, which of the following would likely happen:

- Continue playing the sport at this institution
- Drop out of the sport but continue your education at this institution
- Transfer to another institution

Do you want to play your sport professionally?

- Yes
- No
- My sport is not available at the professional level

If yes, to what degree are you confident that you’ll be drafted or offered the opportunity to play at the professional level

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Extremely</th>
<th>Not Applicable</th>
</tr>
</thead>
</table>

What is the most difficult aspect of being a student athlete at this institution?

New Transfer Student

How many other institutions have you attended prior to coming here?

- One Institution
- Two Institutions
- Three Institutions
- Four or more Institutions

How many college credit hours did you earn prior to coming here (count all credit hours that did or did not transfer to this institution)?

- No credits earned
- 1 to 15 credits
- 16 to 30 credits
- 31 to 45 credits
- 46 to 60 credits
- 61 to 75 credits
- 76 to 90 credits
- More than 90 credits

What type of institution did you attend prior to coming here?

- 2-Year College
- 4-Year College/University
What was the predominant reason why you left the previous institution?

- Wanted a different location (closer to family or friends)
- Wanted a different academic program (changed majors, your major isn’t offered here, etc.)
- Financial issues (too expensive, get more financial aid somewhere else)
- Wanted a different academic environment (smaller classes, easier classes, more difficult classes)
- Wanted a different social environment (don’t fit in here,...)
- Pursue a degree not offered at the previous institution (i.e. master’s degree, bachelor’s degree, associate’s degree)
- Other reason (Specify Below)

What is the most difficult aspect of being a transfer student at this institution?

Fraternity/Sorority Member

Are you an active fraternity/sorority member or pledging to a fraternity/sorority this term?

- Yes
- No

Did you affiliate (including new member activities) with your fraternity/sorority this term?

- Yes
- No

During this term, how many hours on average per week do you expect to spend on chapter related activities?

- None
- 1 to 5 hours
- 6 to 10 hours
- 11 to 15 hours
- 16 to 20 hours
- 21 to 25 hours
- More than 25 hours

How likely do you think it is that you will do or experience each of the following during this term:

| Event                                      | Extremely | 2 | 3 | Moderately | 4 | 5 | 6 | Not at all | Not Applicable |
|--------------------------------------------|-----------|---|---|------------|---|---|---|------------|----------------|                 |
| Miss class due to fraternity/sorority events| ○         | ○ | ○ | ○          | 4 | 5 | 6 |            |                 |
| Have difficulty balancing your study time with the time spent on your fraternity/sorority events | ○         | ○ | ○ | ○          | 4 | 5 | 6 |            |                 |

What is the most difficult aspect of being a fraternity/sorority student at this institution?
Served in Military

Which of the following best describes your deployment history?

<table>
<thead>
<tr>
<th>Never deployed</th>
<th>Deployment to area(s) designated as hazardous duty</th>
<th>Deployment to area(s) not designated as hazardous duty</th>
</tr>
</thead>
</table>

When did you last serve in a combat zone?

<table>
<thead>
<tr>
<th>Never served in a combat zone</th>
<th>Less than 5 years ago</th>
<th>5 to 10 years ago</th>
<th>More than 10 years ago</th>
</tr>
</thead>
</table>

Which of the following best describes your current military status?

<table>
<thead>
<tr>
<th>Active duty military</th>
<th>Guard or Reservist - subject to deployment</th>
<th>Separated or discharged from current and future military obligations</th>
<th>Other (Specify Below)</th>
</tr>
</thead>
</table>

During this term, how many hours on average per week do you expect to spend in military-related activities?

<table>
<thead>
<tr>
<th>None</th>
<th>1 to 5 hours</th>
<th>6 to 10 hours</th>
<th>11 to 15 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 to 20 hours</td>
<td>21 to 25 hours</td>
<td>More than 25 hours</td>
<td></td>
</tr>
</tbody>
</table>

How likely do you think it is that you will do or experience each of the following during this term:

<table>
<thead>
<tr>
<th>Extremely Unlikely</th>
<th>Very Unlikely</th>
<th>Moderately Unlikely</th>
<th>Not at All</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miss class due to military events/issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have difficulty balancing your study time with the time spent on your military events/issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What is the most difficult aspect of being a student with a military background at this institution?

Based on the experience you have had during your first month being on the UNC campus, please rate your satisfaction with the level of customer service you received from UNC.

Please Select...

Have you interacted with a faculty member outside of the classroom?

Yes

No

Have you had a chance to meet the faculty member (Faculty in Residence) who is living in or near your community?

Yes

No

Not Applicable
If you live in a learning community, did you choose this community because of its association with an academic community or theme?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Not Applicable</th>
</tr>
</thead>
</table>

Are you interested in volunteer or civic engagement opportunities?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Are you interested in engaging in educational experiences about social justice, diversity, or multiculturalism?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Can you share the name of a faculty or staff member on campus who has made a positive impact on your transition to UNC?


If you have had a negative customer service experience on campus with a department, faculty, or staff member, can you please share their name so we can provide necessary feedback?


How do you prefer to be contacted?

- Cell Phone - Call
- Cell Phone - Text Message
- Room/House Phone
- Email
- Written Correspondence

If you live on campus, how satisfied have you been with the level of customer service provided at your front desk?

Please Select...