

STUDENT EXPECTATIONS AND PERCEPTIONS
OF SERVICE QUALITY AT A FOR-PROFIT
COLLEGE

By

MELISSA H. FRANCE

Bachelor of Arts in Political Science
State University of New York at Buffalo
Buffalo, New York
1990

Masters of Education
State University of New York at Buffalo
Buffalo, New York
1992

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
May, 2015

STUDENT EXPECTATIONS AND PERCEPTIONS
OF SERVICE QUALITY AT A FOR-PROFIT
COLLEGE

Dissertation Approved:

Dr. Tami Moore

Dissertation Adviser

Dr. Jesse Mendez

Dr. Laura Barnes

Dr. Valerie McGaha

Outside Committee Member

ACKNOWLEDGEMENTS

As with any large undertaking, it cannot occur without a never-ending list of those who helped along the way. I am very fortunate to be surrounded by endless family support, good friends and devoted faculty. The first person I wish to thank is my husband who from the start when I mentioned this idea of pursuing a Ph.D. has been completely supportive and not even for a moment been anything less. Without you husband, none of this would have ever been thinkable and because of you this is now one of the many wonderful memories we together have achieved. My children, Jordan, Keaton, Jensen and Kiefer, you are without hesitation the joy of my life and my inspiration. Each of you at different points provided me the added support, the extra hug, and a kind word giving me encouragement and determination to see this to completion. I love each of you to the moon and back. To my in-laws, Harold and Colene, thank you for your willingness to help out with the children and always letting me know how proud you have been.

My dearest friend Laura, you have consistently been supportive as well as my cheerleader. Not only have you been so encouraging you have proofread every single page I sent your way. Including this one. You have edited with kindness but always gave me the needed feedback to make my work better. Never once did you ever act as this was a burden, and you continue to be my faithful reassuring friend.

Roger, I have been so fortunate to have you as my mentor. You have extended yourself to me for many years, helping me to be a better person, leader and now seeing me

to the completion of my Ph.D. Thank you for your ongoing encouragement and support.

To my cohort, it has been a pleasure to share this experience with each one of you. As I reflect on these past years, I am grateful to have been a part of this amazing group of individuals. Carolyn, you could not ask for kinder and more supportive friend. Also, I cannot thank you enough for all your APA expertise. Toni, you made every class worth attending, you make people laugh and during many stressful moments that have been a tremendous relief. Katie, your determination has been so strong it carried many of us along. Pam, thank you for your council; you blazed the path for us to follow, and you always took the time to help me along the way. Your wit has made these last six months worth experiencing. Molly, in class you were always the first to get the conversation going and shared great insights. Sarah, you always had a way of connecting the dots with such clarity. My writing partner Jennifer, thank you for your time and caring about my work as much as I did. The first three chapters came together because of your thorough review and recommendations.

My sincerest appreciation to my program and dissertation advisor, Dr. Tami Moore, you have generously offered your time and commitment to direct my academic path and dissertation. It has been a privilege and a wonderful opportunity to be a part of this program, and I credit your leadership to my successful completion. To my committee members, Dr. Barnes, thank you for your time and patience these last few months. I have learned so many things and the statistical analysis would not have been possible without your guidance. To Dr. Mendez and Dr. McGaha, thank you for your support and encouragement along the way.

Above all things I am grateful to the Lord for these gifts he has bestowed upon me; let me be worthy.

Name: Melissa H. France

Date of Degree: MAY, 2015

Title of Study: STUDENT EXPECTATIONS AND PERCEPTIONS OF SERVICE
QUALITY AT A FOR-PROFIT COLLEGE

Major Field: Educational Leadership and Policy Study

Abstract: The rate of enrollment growth at the 800 degree granting for-profit institutions in the U.S. is outpacing traditional colleges and universities (Kinser, 2005; Lynch et al., 2010). However, four-year degree programs at for-profit colleges continue to struggle with a high departure rate. Critics contend for-profit institutions lack commitment to student success, defined as persistence to completion of their degree (Bailey et al., 2001). Many times, retention policies and programs are unsuccessful because of inaccurate knowledge about students' expectations and needs rather than lack of institutional effort (Tinto, 2012). The purpose of this study was to examine the relationship between students' expectations and perceptions of service quality and students' intent to persist and graduate at for-profit college. Employing the service quality tool, SERVQUAL (Parasuraman, Zeithaml, & Berry, 1985), assisted in measuring whether students' perceived service delivery as better than or worse than what was expected based on the five service quality dimensions (tangibles, reliability, responsiveness, assurance and empathy).

The participants of this study attend Mile High University; a small for-profit college located in the Rocky Mountain region that provides coursework using exclusively on-line methods. Of the four dimensions, reliability offered predictive capability of intent to continue enrollment as well as intent to graduate. Students appeared to experience higher quality of dependable service than they expected and based on that experience were more likely to continue their enrollment until graduation. The remaining three dimensions (tangibles, responsiveness, and empathy), although not predictive of intent to continue enrollment or graduate, did denote positive reflections of their experiences. The next step is define a course of action that continues to seek student feedback to better understand the students Mile High University serves and design a retention initiative based on what actions matter most (Tinto, 2012).

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION.....	1
<i>Problem Statement</i>	4
<i>Purpose of Study</i>	5
<i>Methodology Overview</i>	5
Epistemological Perspective.....	6
Theoretical and Conceptual Perspective.....	6
Research Questions.....	8
Data Collection.....	9
Data Analysis.....	11
<i>Significance of the Study</i>	12
<i>Delimitations</i>	13
<i>Summary</i>	13
II. REVIEW OF LITERATURE	15
Search Process.....	16
<i>Background of For-Profit Colleges and Universities</i>	17
General Attributes of For-Profit Colleges.....	18
Historical Perspective.....	19
Issues Surrounding For-Profit Education.....	23
Recruitment practices.....	23
Student persistence.....	25
Student loan debt.....	26
The Future.....	26
<i>Retention and Institutional Action</i>	28
Background of Tinto’s Integration Theory.....	29
Integration.....	30
Individual Characteristics Influence on Persistence.....	31
Institutions Influence on Persistence.....	34
Limitations to Tinto’s Integration Theory.....	38
Institutional Actions.....	39
<i>The Service Quality Paradigm</i>	43

Defining Service Quality.....	43
Service Quality Debate	50
Service Quality and Higher Education.....	54
<i>Summary</i>	58
METHODOLOGY	59
<i>Research Design</i>	59
<i>Population and Sample</i>	60
<i>Research Questions</i>	61
<i>SERVQUAL Instrument</i>	61
Overview of SERVQUAL	62
SERVQUAL reliability.....	62
SERVQUAL validity.....	63
<i>Outline of Survey for the Study</i>	64
<i>SERVQUAL Modifications</i>	66
<i>Data Collection</i>	67
<i>Data Analysis</i>	69
<i>Validity</i>	70
External Validity	70
Internal Validity	71
<i>Reliability</i>	72
<i>Summary</i>	72
FINDINGS.....	74
<i>Research Questions</i>	74
<i>Survey Overview and Response Rate</i>	75
Questionnaire	75
Dimension Definitions	76
Incomplete Data	76
Demographics	77
<i>Missing Data</i>	79
Screening for Missing Data.....	79
Resolving Missing Data	80
Listwise deletion (LD).....	81
Multiple imputation (MI).....	81
<i>Reliability</i>	82
<i>Correlation Matrix</i>	84
<i>Linear Regression</i>	85
Assumption 1: Linearity.....	86
Assumption 2: Independence of Observations.....	86
Assumption 3: Homoscedasticity.....	87
Assumption 4: Normality	88

Assumption 5: Multicollinearity	88
<i>Binary Logistic Regression</i>	89
Categorizing Dependent Variables	90
Assumptions	91
Analysis	92
<i>Demographic Variables Examined</i>	110
Age	112
Enrollment	115
Gender	117
Ethnicity	119
<i>Disparity Between Intentions and Actual Graduation</i>	122
<i>Summary of Findings</i>	123
DISCUSSION	126
<i>Research Design</i>	126
<i>Research Questions</i>	127
<i>Review of Methodology</i>	128
<i>Discussion of Findings</i>	129
Dependable and Accurate Service	130
Appearance and Information	131
Willing and Prompt Service	132
Care and Individualized Attention	133
Age, Gender, Ethnicity and Enrollment Status	134
Disconnection to Actual Graduation Rate	135
<i>Implications and Recommendations</i>	137
Implications for Research	138
Implications for Theory	140
Implications for Practice	141
<i>Limitations</i>	143
<i>Closing Remarks</i>	145
REFERENCES	150
APPENDIX A	168
APPENDIX B	169
APPENDIX C	180
APPENDIX D	181
APPENDIX E	185
APPENDIX F	187

LIST OF TABLES

Table	Page
1. SERVQUAL Instrument Reliability Coefficients Based on Gap Score	63
2. Overview of SERVQUAL Dimensions.....	75
3. Self-identified Sample Characteristics of the Survey Respondents	77
4. SERVQUAL Expectation Cronbach Alpha	82
5. SERVQUAL Perception Cronbach Alpha	82
6. SERVQUAL Dimension Gap Total Descriptive/Cronbach Alpha	84
7. Correlation Matrix of Independent Variables.....	85
8. Frequency for Intention to Graduate and Continue Enrollment	98
9. Dependent and Independent Variables and Definitions	101
10. Independent variables central tendency.....	102
11. Hosmer and Lemeshow Test for Each Dependent Variable.....	107
12. Classification Table of Outcome Variables.....	108
13. Variables in the Equation for Students Intent to Continue Enrollment.....	110
14. Variables in the Equation for Intent of Graduate	111
15. Intent to Continue Enrollment- Reliability Dimension Descriptive.....	113
16. Intent to Graduate- Reliability Dimension Descriptive.....	115
17. SERVQUAL Perceptions and Expectations by Dimension: Means and Standard Deviation	116
18. Overall Rating by Dimension.....	117
19. Demographic Predictor Variables	118
20. Characteristics separated by Intent to Enroll or Graduate.....	120

LIST OF FIGURES

Figure	Page
1. ITT Technical Institute pain funnel and pain puzzle illustration.....	24
2. Diagram of Grönroos service quality model..	46
3. Overview of service quality gaps..	47
4. Definitions of the five service quality determinants.....	49
5. Major applications of SERVQUAL instrument.	50
6. Timeline for survey distribution and data collection.....	68
7. Matrix scatter of intent to enroll.	87
8. Scatterplot of intent to continue enrollment	88
9. Matrix scatter of intent to graduate	89
10. Scatterplot of intent to graduate.	90
11. Scatterplot of intent to enroll with regression line	92
12. Scatterplot of intent to graduate with regression line	93
13. Histogram of intent to enroll	94
14. Histogram of intent to graduate	95
15. Histogram of frequencies of Tangibles gap score	103
16. Histogram of frequencies of Reliability gap score	104
17. Histogram of frequencies of Responsiveness gap score.....	106
18. Histogram of frequencies of Empathy gap score	105
19. Bar graph of Reliability dimension intent to enroll.....	112
20. Bar graph of Reliability dimension intent to graduate	114
21. Bar graph of age and intent to continue enrollment	122
22. Bar graph of age and intent to graduate.....	123
23. Bar graph of enrollment classification and intent to enrollment	124
24. Bar graph of enrollment classification and intent to graduate.....	125
25. Bar graph of gender and intent to enrollment.....	126
26. Bar graph of gender and intent to graduate	127
27. Bar graph of ethnicity and intent to enrollment.....	128
28. Bar graph of ethnicity and intent to graduate	129

CHAPTER I

INTRODUCTION

“My education. My job. My choice.” For-profit college advocates protesting outside the United States Capital demonstrated their views wearing t-shirts proclaiming this slogan with the intent of garnering the interest of the U.S. Senate (2012). The Senate committee on Health, Education, Labor and Pensions recently concluded its hearings on student success in for-profit education, and issued a lengthy report entitled “For-profit higher education: The failure to safeguard the federal investment and ensure student success” (U.S. Senate Health, Education, Labor, and Pensions (HELP) Committee, 2012, p. 1). This two-year investigation involved various policymakers, and received the support of the Department of Education concerning assessment and accountability of the for-profit college industry.

Scholars and educators refer to for-profit colleges as proprietary institutions, career colleges, and niche schools and these terms will be used interchangeably throughout this study (Kinser, 2006; Ruch, 2001; Tierney & Hentschke, 2007). For-profit colleges are defined as private businesses that pay taxes and are classified as, either family owned, private corporations, or public corporations (Kinser, 2005). They tend to utilize a business model approach that seeks profitability (Tierney, 2011). The job market guides the various degrees offered and these programs are designed to be

accessible and flexible to serve a variety of students seeking post-secondary education. The federal government provides approximately \$140 billion annually in student loans and grants to support post-secondary education (U.S. Senate HELP Committee, 2012). Of this amount approximately \$32 billion goes into the hands of students who attend for-profit colleges, which comprises 70% of these institutions' revenue (Kingkade, 2012). For-profit colleges are not new and have been a part of the higher educational system for more than a century, yet in the past 20 years have been more visible (Kinser, 2006; Ruch, 2001; Tierney & Hentschke, 2007).

A variety of stakeholders are intensively scrutinizing the controversial post-secondary education player: for-profit colleges. These include not only the federal government and the U.S. Department of Education, but also the media and educators. This attention has focused primarily on questionable recruitment methods, poor retention rates, high student loan debt, and inadequate preparation of their graduates (Beaver, 2009; Belfield, 2013; Honick, 1992; Sridharan, 2012). Nevertheless, these institutions are growing in popularity, and in the past 10 years, for-profit colleges have developed dramatically with a 236% increase in enrollment (Lynch, Engle, & Cruz, 2010). On the other side of spectrum the traditional sectors of post-secondary education enrollment has only increased by 18-20%. Supporters maintain for-profit colleges afford many career-oriented programs that focus on educating and training students to join the workforce in high demand fields (Floyd, 2007). Proprietary colleges offer hands-on learning, convenient class times, and shortened general educational course requirements (Floyd, 2007; Kinser, 2006). This industry has designed its infrastructure to be customer service oriented where students are viewed as their customers (Kinser, 2005, 2006). Some

scholars liken the arrangement to the way in which similar service industries function, such as banks or utility companies where the guiding philosophy is to make life-long customers (Morey, 2004).

Both retention and departure issues in higher education share an extensive amount of scholarly attention (Tinto, 2012). College departure is examined in a widespread body of literature and is one of the most studied areas in higher education research (Habley, Bloom, & Robbins, 2012). Policymakers are connecting higher education institutional performance and/or quality with retention and graduation rates (Berger & Lyon, 2005; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007; Titus, 2004). The average completion rate of students seeking bachelor's degrees at for-profit college is 22%, compared to 55% at public institutions and 65% at private non-profit colleges (Lynch et al., 2010). For-profit colleges' poor performance in these areas has prompted scholars to examine this issue from several different perspectives. The changing nature of demographics and accountability expectations necessitate institutions to examine the progression of students from "cradle to grave, beginning with recruitment, moving on to retention, and ending with graduation" (Dolence, 1998, p. 71).

The first chapter of this dissertation will provide a comprehensive overview of the proposed study. The introduction includes the problem statement, the purpose of the study, and the professional significance that guides the context of this research. The following headers round out chapter one: methodology overview, theoretical perspective, delimitation and definitions of key terms used throughout this dissertation.

Problem Statement

The public has grown increasingly aware of the for-profit college industry (Bailey, Badway, & Gumport, 2001). In 2012, the U.S. Senate HELP committee concluded its two-year investigation of for-profit institutions with a 5,234-page report that is less than favorable of proprietary institutions performance. The media continually report accusations of suspect and deceptive practices of this industry. President Obama has announced support to implement regulations that hold proprietary colleges more accountable for low completion rates of students (The White House Office of the Press Secretary, 2013). Additionally, the U.S. Department of Education has instituted multiple regulations from gainful employment to incentive compensation to tighten its grip on this industry. Though these aggressive measures may offer solutions to some of the issues, they do not address why over 70% of students depart for-profit colleges prior to completion (U.S. Senate HELP committee, 2012).

Despite the fact that proprietary colleges are fired upon from all directions, the rate of enrollment growth at the 800 degree granting for-profit institutions is outpacing traditional colleges and universities (Kinser, 2005; Lynch et al., 2010). However, four-year degree programs at for-profit colleges continue to struggle with a high departure rate. Critics contend for-profit institutions lack commitment to student success, defined as persistence to completion of their degree (Bailey et al., 2001). Many times, retention policies and programs are unsuccessful because of inaccurate knowledge about students' expectations and needs rather than lack of institutional effort (Tinto, 2012). Tinto's Model of Student Integration will be utilized for this discussion, as it has obtained considerable consensus both theoretically and empirically (Bean, 1980, 1985; Cabrera,

Nora, & Castaneda, 1993; Pascarella, Terenzini, & Wolfle, 1986). Tinto's theoretical framework focuses on the nature in which students are academically and socially integrated into the institutional community. Following Tinto's theory, the high departure rate may be because institutional actions, practices and policies are inappropriate for encouraging persistence and retaining students in the for-profit college environment. Assessing student expectations assists in identifying ways institutions can improve their services to better match student needs to support integration into the social and academic aspects of the institution (Tinto, 1993, 2012). Tinto (1993) refers to the social integration as the degree to which students accept and incorporate into the social facets of the college community, including membership in organizations, attending University events, and establishing peer relationships. Academic integration refers to the degree to which students accept and incorporate the academic norms of the college or university, including individual academic performance as well as interaction and contact with faculty members (Tinto, 1993).

Purpose of Study

The purpose of this study was to examine the relationship between students' expectations and perceptions of service quality and students' intent to persist at for-profit colleges. Employing the service quality tool, SERVQUAL, will assist in measuring whether students' perceived service delivery "meets, exceeds or falls short" (Shank, Walker, & Hayes, 1995, p. 72) of expectations at their institutions.

Methodology Overview

The full description of methodology of this study appears in chapter three.

Epistemological Perspective

A post-positivist worldview pervades my research perspective that reality can be observed and measured (Creswell, 2009). While absolute truth is sought, but not always found, I utilized research approaches and methods that uncover truth while acknowledging individual subjectivity can shape the participants' reality. Cultural experiences and bias exert some measure of influence whereby truth can only be approximated (Onwuegbuzie, Johnson, & Collins, 2009).

A quantitative format offers the most appropriate method for research measurement as it allows for the use of a structured research instrument, minimizes individual subjectivity and accommodates a larger sampling size. Statistical analysis including inferential statistics provides the necessary means to assign probabilities and reveal relationships accounting for the level of confidence or error and providing results mirroring reality (Creswell, 2009; Onwuegbuzie et al., 2009).

Theoretical and Conceptual Perspective

Appropriately addressing persistence in the for-profit college environment demands theoretical and conceptual frameworks that align with the issues found at proprietary institutions. The two theories that guide this study are Tinto's Interactionalist Theory of College Persistence and Parasuraman, Zeithaml, and Berry's Service Quality paradigm. The study also has considered various student characteristics in relation to student persistence.

Tinto's interactionalist theory. Many scholars agree that Tinto's theory of student persistence is one of the most widespread, and highly cited retention theories, nearing what is considered quintessential status used in the study of retention in higher

education (Braxton, Hirschy, & McClendon, 2004; Melguizo, 2011; Pascarella, Terenzini, & Wolfe, 1986). The utilization of Tinto's interactionist theory provides the framework to examine the interaction between the institution and the student as it relates to persistence.

Tinto (1993) asserts that all students enter college with various attributes that shape their initial level of institutional commitment. These attributes include family background, individual characteristics, and pre-college academic preparation (Braxton & Hirschy, 2005). This initial commitment, along with the student's academic and social integration, influences the individual's institutional commitment and the subsequent goal of college graduation (Tinto, 1993). There are four aspects or clusters that Tinto (1993) identifies which influence a student's level of integration: adjustment, difficulty, incongruence and isolation. Each of these clusters recognizes the interaction between the individual and the institutional environment. The use of Tinto's theoretical paradigm in this study provided an understanding of the complex process of the students' decisions to depart or persist.

Service quality paradigm. Higher education offers a variety of services to its clients, ranging from reliance on the computer network, advisement, to provision of many support services and programs reinforcing the college experience outside the classroom. The quality of the service provided is integral to whether the service offers a benefit to the college environment and influences students' social and academic integration within the community (Tinto, 1993). Parasuraman, Zeithaml, and Berry (1985, 1988) developed the Gap model for service quality, based on a disconfirmation paradigm that acknowledges the discrepancies between expectation and perception formed by

customers. Expectations are how a student forecasts or predicts service that is likely to be received from the institution (Shank et al., 1995). Perceived service quality is a comparison between what the student expects and the service he or she receives (Parasuraman et al., 1985).

Further evolution of the Gap model led to the development of the SERVQUAL instrument to measure customers' expectations and perceptions using five dimensions. These include tangibles, reliability, responsiveness, assurances, and empathy to measure an organization's actual performance. SERVQUAL was developed as a skeleton format that can be altered for various service settings, including higher education (Clewes, 2010; Zeithaml, Parasuraman, & Berry, 1990).

Research Questions

Using multiple regression analysis, arrays of variables were tested to determine if, and to what degree, a relationship exists to predict outcomes (Wood & Brink, 1998). Descriptive and inferential statistical methods allow an examination of the relationships between service quality as defined as students' expectations and perceptions and students' intent to persist. The following research questions guide this study.

- Question 1: What are the intercorrelations among the gap scores for the five SERVQUAL scales?
- Question 2: What is the relationship between the gap scores and student intent to re-enroll, for each of the five SERVQUAL scales?
- Question 3: What is the relationship between the gap scores and student intent to persist/re-enroll, over and above the unique contributions of the demographic variables, for each of the five SERVQUAL scales?

Question 4: What is the relationship between the gap scores and student intent to graduate for each of the five SERVQUAL scales?

Question 5: What is the relationship between the gap scores and student intent to graduate, over and above the unique contributions of the demographic variables, for each of the five SERVQUAL scales?

Data Collection

Mile High University is a small for-profit college located in the Rocky Mountain region that provides coursework exclusively using on-line methods. Mile High University joined this study, as it was accessible and agreeable to participate in this research. This institution is very representative of general attributes of students in attendance at for-profit colleges. This includes a ratio of 70/30 female to male, 60/40 ratio of full to part-time students, higher representation of students classified as minority and disproportion number of students in attendance, over 60%, are adult learners that are over the age of 25 (Deming, Goldin, & Katz, 2013; Iloh, & Tierney, 2013).

The target population for this study was undergraduate students enrolled during fall 2014 semester. The average number of undergraduate students pursuing a Bachelor's degree at Mile High University is 1,700; 638 are enrolled full-time and the remaining 1,092 are part-time students. Of this, the majority are females comprising 68% of the students in attendance. The dominant race/ethnicities are Black/African American 35% and White/Caucasian 28%. Currently, there are no students who are enrolled outside of the United States. This institution offers various degree programs centering on business including Bachelor of Arts in Business Communication and Bachelor of Business Administration. In 1999, Mile High University became the first for-profit institution to

receive regional accreditation from the Higher Learning Commission of the North Central Association of Colleges and Schools (Morey, 2004).

The for-profit college industry, on average, admits more students who are underrepresented and underprepared than traditional colleges (Douglass, 2012).

Research regarding relationships and connections between specific variables such as gender, age and ethnicity and student persistence continues to be a topic among scholars (Kuh et al., 2007). These factors have been found to influence student persistence.

Research shows that gender, race, ethnicity, and socioeconomic status each play a role in predicting success rates (Kuh, et al., 2007). The demographic characteristics under examination include gender, age, enrollment status, and ethnicity.

Qualtrics, an on-line survey tool, provides the collection and retention of survey responses. The survey instrument consists of four sections. Section one includes the modified SERVQUAL instrument. Parasuraman, Zeithaml and Berry (1988) developed the original SERVQUAL survey; with permission of the researchers, the original instrument has been modified to reflect needs of this study. Students responded on the basis of expected service quality and perception of received service quality. A Likert scale consisting of 1 thru 7 where 1 indicates *strongly disagree*, 4 indicates *neither agree nor disagree*, and 7 indicates *strongly agree* was used for each statement. The second section of the survey measured overall performance of service using the established SERVQUAL dimensions, including tangibles, reliability, responsiveness, assurances, and empathy. The scale for each of these statements was 1 thru 7 ranging from poor to excellent. Section three explored questions related to understanding student satisfaction and intent to continue at the institution. The final section provided an array of

demographic questions such as, gender, age, enrollment status, number of credit hours completed, race and ethnicity.

The on-line format of the survey instrument utilized the Dillman (2001) principles. These principles provided a guide to develop an instrument that offers equal chance of receiving and responding to the survey. The guidelines included many recommendations, from the composition of the welcome page to limiting the number of answers that appear on each screen. Each of these principles, if employed correctly, created a more respondent-friendly survey that could improve the response rate (Dillman, 2001).

In coordination with the Mile High University, an e-mail message was sent at various intervals to all students who were currently attending the University and were enrolled in a bachelor's degree program. The messages was scripted and approved by the Oklahoma State University Institutional Review Board and Mile High University. As this survey was unlikely to achieve 100% response rate, the study was structured to achieve a statistically representative sampling.

The student's responses were anonymous and the survey instrument did not request information that could identify the individual. Qualtrics allows for anonymous survey distribution that did not track a computer's IP address, further securing anonymity (Anonymous survey link, 2014). The survey responses are maintained on a secure server monitored by Qualtrics and the data gathered remain the intellectual property of the researcher (Hite, 2011).

Data Analysis

The process of analyzing the data included descriptive and inferential statistical analysis using SPSS, version 22.0. The descriptive statistics including central tendency

as well as range and standard deviation provided initial information about the variables and the research questions. Regression design will examine the relationship of the multiple variables and the ability of the independent variables to predict the outcome variable, student's intent to persist and graduate. To ensure independent variables were not too correlated inspection of multicollinearity was necessary. This statistical phenomenon is where several of the predictor variables are highly correlated making it hard to calculate individual contribution (Muijs, 2004).

Significance of the Study

The theoretical and conceptual frameworks related to retention of college students demonstrate a considerable range (Melguizo, 2011). Even though educators and policymakers question the reasons why students at for-profit colleges have a poor persistence rate few researchers have focused on institutional actions that influence students persistence and program completion (Kinser, 2005). The significance of this research was to bridge the gap in the literature about student perceptions and expectations at for-profit colleges as they relate to the institutions' actions and environment that are designed to encourage student persistence.

This study can further contribute to Tinto's (2012) conceptual framework of institutional action by including the for-profit college experience. Results may also inform practitioners about students' perceptions and expectations, possibly providing direction for programs and policies to support retention efforts. This study offers insight for proprietary institutions to better understand how the services they offer impact students in a way that contributes to their retention efforts.

Delimitations

Strengthening generalizability relies on several factors, including the reduction of threats to external validity for example, by designing the survey in-keeping with Dillman's (2001) recommendations for a web-based instrument. These principles aid in creating a respondent-friendly questionnaire that assists in ensuring respondents had equal chance of receiving and responding to the survey (Dillman, 2001). Though research findings were limited to one institution, Mile High University was representative of other for-profit colleges. Similarities include male to female ratio, part-time to full-time enrollment status, diversity of students in attendance, graduation rate, and large non-traditional student population. Internal validity can be of issue as students are sharing both expectations and perceptions; reflections of their experiences may be more associated with the institution they attend than with the for-profit college industry.

Summary

For-profit colleges were once small trade schools and career colleges that educators considered as outliers to the post-secondary system. These institutions have evolved to become a competitive sector in higher education. This research analyzed the retention of students in the for-profit college environment. Using the Service Quality model, the purpose of this study was to examine the relationship between student expectations and perceptions of the institution and student intent to persist and graduate.

The following chapters provide a detailed discussion of this research topic. Chapter two is an examination of the literature and research studies exploring the history of for-profit colleges, Tinto's theory of student retention including, and the Service Quality model. Chapter three provides an in depth discussion of the methodology,

including the purpose of the research design, survey instrument, data collection procedures and the approaches to data analysis. A detailed description of the results of the study comprises chapter four. The final chapter of this dissertation incorporates analysis of the research results as well as implications and recommendations for future research.

CHAPTER II

REVIEW OF LITERATURE

Post-secondary education in the United States comes in many forms: community colleges, small private institutions, large public universities, and colleges designed for-profit. For-profit colleges, which some have labeled niche schools, career colleges or proprietary institutions, were historically trade schools and provided certificates and programs ranging from cosmetology to secretarial training (Tierney & Hentschke, 2007). They presently offer expansive options including bachelors, masters, and doctoral level degree programs. In 2012, these small career colleges have developed into publically traded companies earning annual profits in excess of \$3.2 billion dollars (U.S. Senate HELP Committee, 2012). Currently 10-12% of students enrolled in colleges and universities in the United States attend for-profit institutions, with a growth rate four times that of the traditional brick and mortar infrastructure (Blumenstyk, 2005). As these institutions vigorously admit students, concerns have arisen surrounding for-profit colleges' poor retention and completion rates in comparison to not-for-profit institutions.

Clearly the main goal of education is not just attending college but persisting to completion (Tinto, 2012). The for-profit industry struggles with student persistence and program completion. Nevertheless, it offers a viable option to individuals seeking post-secondary education. Examining the scale and scope of this industry uncovers the

legitimate role these institutions play in higher education and identifies why it is necessary to understand this system and acknowledge its strengths. This literature review begins with an explanation of the process used to search for various journal articles, monographs, and books to examine the following three distinct issues: the historical context of for-profit colleges and universities; an overview of retention theory and institutional actions designed to influence student persistence and completion; and the framework of the service quality model.

Search Process

This literature review process employed several methods to locate relevant and meaningful sources. The starting point was a Google Scholar search using the keyword, “for-profit colleges.” This quickly identified various articles referencing the recent U.S. Senate (HELP) Committee hearing and Department of Education (DoED) regulations directed towards the for-profit college industry, leading to an in-depth review of federal reports and senate hearing transcripts located at government websites. Having a more developed understanding of the current issues and debates led to numerous electronic searches using ERIC. These searches included “completion rates,” “higher education persistence,” “retention,” “quality,” and “student outcomes.” At first the journal articles retrieved sent this research in many directions, but slowly the breadth of topics solidified as the collection of articles began to distill down into three distinct areas. The most useful search process was identifying a few key articles and reviewing the author citations that organized the search process.

Background of For-Profit Colleges and Universities

Many educators and policymakers consider for-profit colleges as a disruption to a relatively stable post-secondary educational environment; however, their history is expansive and they continue to play a pivotal role in the higher educational system (Tierney & Hentschke, 2007). For-profit institutions have been a part of the post-secondary landscape for over 300 years (Kinser, 2006). One of the primary characteristics of for-profit institutions is the creation of academic opportunities that are not only accessible, but also inclusive. For most of the 17th, 18th, and 19th centuries, the traditional post-secondary system catered to the elite five percent of society, overlooking the needs of many subgroups such as Native Americans, minorities and women (Honick, 1992). Proprietary institutions admitted a wider range of students from many demographic categories and the same is still true today. Over half of the students enrolled at for-profit colleges are economically disadvantaged, 37% are minorities (McQueen, 2012; Sridharan, 2012), and 50% are non-traditional students over the age of 25 (Deming, Goldin, & Katz, 2011). In an effort to meet the needs of this diverse student population, proprietary programs tend to require a shorter timeframe for completion and offer a wider range of night and weekend course offerings (Chung, 2012). In doing so, for-profit colleges have aptly identified the needs of one of the most significantly growing student populations, adult learners, and have created an environment for achievable education that can translate into a stronger labor force (Floyd, 2007; Kinser, 2006). These institutions continue to make a deliberate mark on college access for many wanting to pursue a post-secondary degree, as evident by an 8% annual growth compared to a 2% growth experienced at traditional universities (Blumenstyk, 2005).

General Attributes of For-Profit Colleges

These colleges differ in several ways from what is understood as the traditional post-secondary institution. Traditional colleges and universities, in general, are community colleges, liberal arts colleges, public state colleges, and private research universities. These schools are considered state supported, tuition driven, or privately endowed non-profit institutions. They offer a wide-array of majors, and have numerous campus buildings and programs to support student development. On the other hand, for-profit colleges are privately owned profit-producing businesses (Hentschke, Lechuga, & Tierney, 2010; Tierney, 2011). Income is generated from tuition rather than state subsidies, endowments or non-profit tax status (Fried & Hill, 2009; Kinser, 2006). Unlike traditional institutions, where at the end of a fiscal year excess income returns to the university's general fund and is subsequently reinvested into the institution, the proprietary industry distributes the excess funds to shareholders or investors (Kinser, 2005). Another characteristic that differs is the physical infrastructure; for-profit colleges have few fixed assets where as, proprietary schools tend to lease space in office buildings or conveniently located storefronts (Beaver, 2009; Kinser, 2006; Tierney & Hentschke, 2007).

The role of the for-profit professorate is unique as well; the four characteristics that tend to define traditional faculty positions include academic freedom, tenure, shared governance, and research and service (Tierney & Hentschke, 2007). At proprietary institutions curricular development and course objectives tend to be centralized and overseen by administrators, leaving faculty with little freedom to develop their own course plans (Floyd, 2007). Faculty members are hired both for their academic

credentials and work experience; commitment to research is not financially compensated in the proprietary college environment (Kinser, 2006; Ruch, 2001; Tierney & Hentschke, 2007).

The student body at for-profit colleges is primarily comprised of adults who tend to be full-time workers and parents with child-rearing responsibilities. Additionally, underrepresented minorities, under-prepared students, and students who attempted to utilize the traditional system but were unsuccessful are represented in the student body (Floyd, 2007; Hentschke et al., 2010; Kelly, 2001). This list of characteristics provides an overview of today's proprietary system but is incomplete without including the history of this "third sector" (Kinser, 2006, p. 1) of post-secondary education.

Historical Perspective

Currently, there are approximately 800 degree granting proprietary institutions and another 3500 non-degree granting proprietary colleges in the nation (Kinser, 2006). The for-profit college industry has changed considerably since its inception in the 1600's when privatized education was primarily offered in areas of math, reading and writing (Ruch, 2001; Urman, 2007). Demand for this type of education evolved into skill-based training for occupations, including bookkeeping, surveying and navigation (Urman, 2007). This early structure of skill-based training continues to be a dimension of for-profit colleges as this industry continues to evolve.

Colonial period. In the course of the Colonial period, Benjamin Franklin was instrumental in developing a proprietary system as a further enhancement to the European based apprenticeship approach (Ruch, 2001). Franklin supported a system through which tradesmen educated apprentices in a formalized experience and expanded the instruction

to include mathematics and theoretical frameworks. He recognized that for a comprehensive educational system to develop it would need to include the private sector. Moreover, to grow as a nation the citizenry needed skills to address tasks such as surveying the land, growing crops and navigating the seas.

The 1800's. Throughout the 1800's, the for-profit education industry was integral in providing educational opportunities needed to address the nation's growing population and the emergence of industrialization (Ruch, 2001). This expansion of proprietary colleges created an array of institutional types, which resembles today's post-secondary system. The developing nation needed more engineers, chemists, and managers to ensure progress and prosperity. The period surrounding the Civil War marks one of the most significant growth spurts of the proprietary industry until a downturn occurred towards the end of 1800's (Beaver, 2009; Sridharan, 2012) as a result of intentional growth spurt in public education with the enactment of the Morrill Acts.

By the end of the 19th century, there were 81,000 students attending vocational training schools in comparison to 157,000 at traditional institutions (Schilling, 2013). Proprietary schools were scattered and independently managed; yet there was a progressive movement among many of them to evolve from vocational training schools into business colleges (Kinser, 2006; Morey 2004). For-profit colleges no longer focused on one or two specializations but branched into a wider assortment of course offerings through the formation of curricular development (Kinser, 2006).

During this time the traditional educational sector expanded sizably. The Morrill Acts of 1862 and 1890 funded 69 public post-secondary institutions (Fried & Hill, 2009; Kinser, 2006). As a result, there was a slowdown in growth of the for-profit college

industry as public education became more accessible both geographically and programmatically. States were building colleges throughout the nation, offering various programs from agricultural to engineering, now in convenient locations. Nevertheless, for-profit colleges continued to endure and maintain their footing in the American educational system as a result of their pragmatic approach to social and economic forces (Ruch, 2001). Proprietary institutions are capable of being nimble and responsive to market demands and consumer needs (Morey, 2004). As the turn of century approached, these institutions, unencumbered by rigorous governance, demonstrated their ability to adapt quickly by restructuring programs and course content to meet the needs of workforce development.

The 1900's to present. In the 20th century, there were several prominent changes affecting the shape and structure of proprietary institutions. In the 19th century, the apprenticeship system started to dissipate, and by the early 1900's it was no longer a formidable system of post-secondary education (Urman, 2007). Industry was growing at such a pace that training a workforce in small groups was ineffective and no longer capable of keeping up with demand (Kinser, 2006). The apprenticeship system gave way to a more structured educational environment (Morey, 2004). For-profit colleges, recognizing the growth in public education as well as developing workforce needs became more organized in business and vocational curriculum development (Morey, 2004; Urman, 2007).

In 1944, many young men returning from World War II and sought opportunities for vocational training to reenter the workforce. Traditional educational structures were not designed to meet this demand. However, the for-profit industry was standing ready.

The government approved the passage of the GI Bill of 1944 to meet the educational needs of this infusion of veterans. Allowing proprietary institutions to receive federal funds (Kinser, 2006; Schilling, 2013; Urman, 2007). For-profit colleges capitalized on this opportunity, tripling the number of proprietary schools in the nation (Schilling, 2013).

Over the next few decades, for-profit institutions maintained a vocational orientation, but also started developing a curriculum more in-line with traditional colleges (Hentschke et al., 2010; Morey, 2004). Proprietary colleges were, at this point, competing with traditional institutions in a manner not previously demonstrated in higher education. As a result, in 1972, after continual pressure from the for-profit sector, the Higher Education Act approved funding for accredited proprietary institutions, including Pell Grants and guaranteed student loans (Ruch 2001; Urman, 2007). For-profit colleges' inclusion in the Higher Education Act provided the needed prompting to policymakers and educators to acknowledge this third sector of post-secondary education. (Fried & Hill, 2009; Kinser, 2006; Schilling, 2013).

Corporate ownership. The “Wall Street Era” also exerted noticeable influence on the for-profit industry in the 20th century (Kinser, 2006, p. 5). In the 1990’s, corporate ownership became infused into the proprietary system, with national chains dominating this infrastructure. Examples of these institutions are DeVry University, ITT Technical Institute, and The University of Phoenix. Proprietary colleges, once mom and pop trade schools, are now publically traded corporations with political strength, growing enrollment and developing programs for high-demand fields (Kinser, 2006; Morey, 2004; Tierney & Hentschke, 2007). These institutions are embarking on an era in which they

are no longer satisfied with being relegated to serving the adult learners or marginalized people and have started to target high school graduates (Kinser, 2006). Proprietary schools, with their arsenal of confidence, convenience, and capital, are ready and willing to compete within the traditional post-secondary system as a full fledged member (Hentschke et al., 2010; Kinser, 2006). The increasing demand for career colleges has also brought about opportunists who are not always concerned with providing a quality education and recurrent scandals riddle this industry's (Honick, 1992; Kinser, 2006). At the start of the 21st century, resistance to the for-profit industry came to the forefront among policymakers and educators.

Issues Surrounding For-Profit Education

The proprietary industry is not without critics and scandals. For-profit colleges have demonstrated responsiveness to the needs of industry development, as well as to students who were denied participation in the traditional post-secondary system yet also share a controversial past (Ruch, 2001). Although for-profit colleges are recognized as an option to obtain a post-secondary education, the industry continues to face allegations of deceptive practices and misuses of taxpayers' resources. Policymakers and the media have targeted a range of issues including poor completion rates, unacceptable student loan debt levels, and unethical recruitment of students (Beaver, 2009; Belfield, 2012; Honick, 1992; Sridharan, 2012).

Recruitment practices. There are several allegations of unethical recruitment strategies within the for-profit industry; some liken their preoccupation on recruitment as creating "enrollment farms" (Sridharan, 2012, p. 335). These concerns are popular media bites that have gained momentum since the 1970's. Some view proprietary institutions as

profit driven entities blinded by their fiduciary responsibilities to shareholders and grounded in the mission of maintaining and growing revenue streams at the expense of student success (Sridharan, 2012). During the recent U.S. Senate HELP committee hearings, several documents were subpoenaed including recruitment-training tools used at proprietary institutions. One of the discoveries was the “Pain Funnel and Pain Puzzle,” an example of an emotional manipulation tool that several companies/institutions use to recruit students (U.S. Senate HELP Committee, 2012, p. 61; see Figure 1 below).

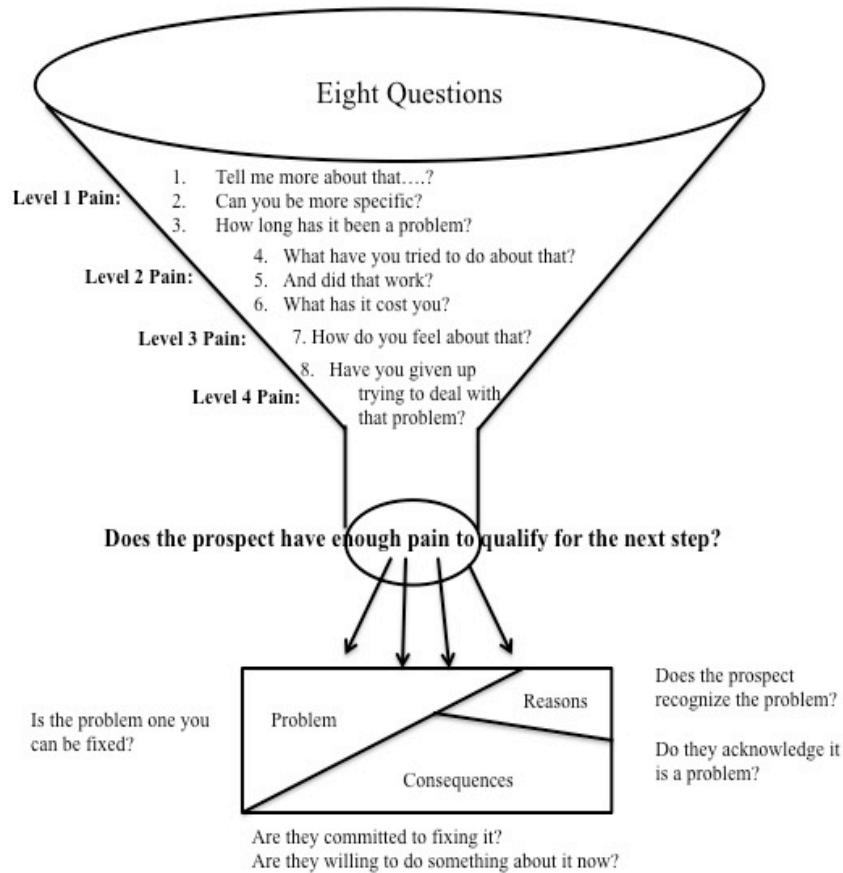


Figure 1. ITT Technical Institute Pain Funnel and Pain Puzzle illustration. From U.S. Senate HELP Committee, 2012, p. 61.

The recruiter strikes up dialogue with prospective students to invoke “pain.” The conversation includes topics such as the poor job market or inability to support their children. These questions many times bring out students’ vulnerability and the recruiter uses these feelings to segue to the merits of a college education and ultimately a way out of their painful experiences.

There are numerous examples of suspect practices at for-profit colleges that were uncovered during the investigation conducted by the Government Accountability office (GAO) in 2010. As the GAO investigated 15 for-profit colleges, they found repeated instances of recruiters misleading prospective students (U.S. Senate HELP Committee, 2012). Some of these occurrences included inaccurate information related to financial aid availability and repayment, inflation of possible job earnings, exaggeration of graduation rates, and deceptive cost of attendance (Kutz, 2010). The outcome of this GAO report led to a two-year hearing conducted by the U.S. Senate Health, Education, Labor, and Pensions (HELP) Committee to examine the for-profit industry.

Student persistence. The U.S. Senate HELP committee investigation of proprietary institutions further examined whether students benefit from the offered education: was the degree useful in obtaining a financially beneficial job in light of the high cost of the education? The committee reported the distribution of over \$35 billion of federal funds in the form of grants and loans to various for-profit colleges across the country to support approximately 3.9 million enrolled students (U.S. Senate HELP Committee, 2012). The HELP committee uncovered that 63% of students exit the institutions prior to completing a degree and, on average, departure occurs within four months following enrollment (U.S. Senate HELP Committee, 2012). Equally as

troubling as the low completion rate is the high debt associated with attending a for-profit institution.

Student loan debt. As noted previously, over half the students who attend for-profit colleges depart prior to completion and 94% are paying the costs themselves through student loans. The U.S. Department of Education (DoED) examined default rates related to these loans. The DoED defines the two-year “cohort default rate” as the percentage of borrowers who enter repayment of federal student loans (by leaving a program through graduation or dropping out) during a fiscal year and defaulting prior to the end of the next fiscal year (Deming et al., 2011). Using this measurement, DoED determined that the two-year cohort default rate at for-profit institutions in 2008 was 11.6% (Deming et al., 2011). This is almost double the rate at public institutions, which is 6%, and almost three times the 4% rate at private non-profits. Further, to demonstrate the significance of for-profit colleges’ default rates; within three years one in four students was unable to repay student loans (Shireman, Baum, & Steele, 2012; Sridharan, 2012). The combination of the high percentage of students taking out student loans and the relatively high default rates prompts many educators and policymakers to question for-profits colleges’ role in the mix of the post-secondary system. The question plaguing some is whether proprietary institutions are overselling and under delivering, thus leaving students in a worse position than had they not attended the proprietary institution.

The Future

Some for-profit colleges have, in fact, been shown to be behaving badly and additional accountability may be needed. Tierney and Hentschke (2007) argue for-profit colleges “are either inevitable and incremental next steps in the evolution of American

post-secondary education or fundamental departure” (p. 1) from the traditional educational system. Resolving this debate may be necessary but in the meantime for-profit colleges play a needed role in the post-secondary system.

Proponents maintain that proprietary institutions offer certain flexibilities that traditional colleges and universities cannot. These options include open admissions, online courses, flexible meeting times, and accelerated programs (Kinser, 2006). Further, for-profit institutions are a critical segment in the President Obama’s 2020 initiative whereby the nation will once again obtain the highest proportion of college graduates in the world. Overall, higher education plays a critical role in providing a skilled workforce to sustain the U.S. economy, maintaining global interests and leading to individual benefits of economic and social standing (Bowen, Chingos, & McPherson, 2009; Habley et al., 2012). During the 2009 State of the Union President Obama addressed the need for post-secondary education, “In a global economy where the most valuable skill you can sell is your knowledge, a good education is no longer just a pathway to opportunity, it is a prerequisite” (Obama, 2009, para. 50). In an effort to increase the number of college graduates, post-secondary education needs to continue what Kohl (2010) and Tierney (2011) identify as providing multiple access routes to serve different populations. Maintaining a variety of options to attain a college education does not negate institutional responsibility. Colleges and universities should address the needs of the students they admit and encourage and provide support to complete their degree programs (Tinto, 1993, 2012).

Retention and Institutional Action

Literature related to student retention abounds, with an extensive number of terms used to describe this complex issue. Examples of these terms include retention, persistence, attrition, dropout, stop-out or departure. These terms have very specific meanings but many times are used interchangeably (Habley et al., 2012). Equally numerous are the theoretical constructs designed and tested to understand the interaction or relationship between students and the institution that influences this process of persistence.

There are three dominant theories associated with student success: involvement, engagement, and integration (Wolf-Wendel, Ward, & Kinzie, 2009). Astin's (1984) Involvement theory examines the amount of physical and psychological energy that a student devotes to the academic experience (Astin, 1993). The level of energy devoted is not the same for every student and is measured along a continuum (Wolf-Wendel et al., 2009). Astin (1993) espouses the I-E-O model that looks at input-environment-outcome. This conceptual framework includes student characteristics at time of college entry, for example, high school GPA and standardized test scores. Followed by what Astin refers to as the mediating mechanisms within the institutional environment these include, programs, faculty interactions and educational opportunities. The last stage is defined as outcome, this considers student's characteristics following exposure to the institution (Astin, 1983).

Kuh's Engagement theory considers the time and effort a student devotes to educationally purposeful activities (Kuh, 2009). Engagement theory also takes into account the effort on the part of the institution to channel student's participation into

learning situations (Wolf-Wendel et al., 2009). Engagement theory differs from involvement theory in that the focus and attention is about the link between student and the educational process/outcome. In order to foster learning, intentional action is needed on the part of the institution (Kuh, 2003).

Finally, integration theory looks at the student's level of involvement in the intellectual and social fabrics of the institution (Elkins, Braxton, & James, 2000). Tinto (1993) posits that student departure is the result of a combination of factors influencing the student's decision to depart, from pre-enrollment characteristics to the level of social and academic integration (Pascarella & Terenzini, 2005; Tinto, 1993). Academic integration refers to the degree to which students accept and incorporate the academic norms of the college or university (Tinto, 1993). Social integration refers to the degree to which students accept and incorporate into the social aspects of college community (Tinto, 1993). This includes membership in organizations and establishing faculty and peer relationships. This theoretical construct provides a comprehensive understanding of the individual student as well as the role of the institution to better understand integration and persistence of students in attendance at proprietary colleges.

Background of Tinto's Integration Theory

During the 1970's, Tinto started his investigation of student departure, recognizing that the many strides made in the form of access to education had not translated to college completion (Bowen et al., 2009; Tinto, 2012). Tinto constructed his efforts from Spady's (1970) student dropout theory, which utilized Durkheim's (1951) suicide model as well as the work of Van Gennep's (1960) on rites of passage. Spady (1970) established a working framework of Durkheim's (1951) theory of suicide and

applied it to student departure. Spady's (1970) application of Durkheim's theory was rooted in the concept of understanding the decision to depart. Durkheim's theory recognized individuals in "tight knit" supportive environments are less likely to experience alienation, which then reduces the risk of committing suicide and departing from life (Tierney, 2008). Tinto's conceptual framework incorporates the premise, that as students integrate into the college environment they are then less likely to depart the institution (Tinto, 1993).

Tinto (1993) drew upon Van Gennep's (1960) rite of passage, which examines the longitudinal process of an individual's transformation. The rites of passage are the progression whereby an individual transitions from one community and identifies with another. Tinto's interest in Spady's (1970) and Van Gennep's (1960) theories provided the foundation for his lifelong work of understanding a student's social and academic integration and his or her voluntary decision to depart college.

Integration

Tinto (1993) claims that for students to persist they must become integrated within both the social and academic campus communities. Tinto defines distinct meanings of social and academic integration and acknowledges this process occurs over time. Events and interactions between the student and peers, faculty, and other members of the community influence the level of integration.

Academic integration. Tinto (1993) defines academic integration as the occurrence of both structural and normative behaviors. Structural integration is where a student is meeting academic expectations or standards as defined by the institution. Generally structural integration is measured by grade point average and the ratio between

the numbers of course credit hours attempted and completed (Tinto, 1975). Normative integration is the assimilation of the values and behaviors found in the academic environment. Tinto (1975) defines norms as the student's intellectual development, indicated by fit between the institution's academic environment and the student's intellectual abilities.

Social integration. Social integration is the perceived connection a student makes between himself or herself and the social structure of the institution, as well as the level of congruence between the student and social system (Braxton & Lee, 2005). This includes interactions with a peer group, participation in extracurricular activities, and connections to faculty and staff members (Braxton, 2000; Tinto, 1993).

Tinto concludes that academic and social integration affect the formation of subsequent commitments to the institution and to the continued goal of graduation (Braxton, 2000; Braxton & Hirschy, 2005; Tinto, 1975, 1993). Students who are well integrated into college life and become intertwined with the academic and social aspects of that culture are more likely to stay in college than those who do not (Tinto, 1993).

Individual Characteristics Influence on Persistence

There are a variety of pre-entry characteristics that influence level of integration, such as family background, individual attributes (gender, ethnicity, and age), pre-college academic achievements, commitment to the institution, and the goal of graduation (Braxton & Hirschy, 2005; Tinto, 1993). Several of these variables are helpful to examine as they have direct and indirect effects on college integration and persistence (Braxton, 2000).

Ethnicity. The graduation rate among racial and ethnic minorities in post-secondary education is problematic (Harper & Quaye, 2009). Harper and Quaye (2009) suggest that to improve racial and ethnic minority persistence, institutions must emphasize student engagement. Devising purposeful activities that focuses on integrating students both academically and socially may hinder student isolation (Tinto, 1993). Students who feel isolated, disconnected and disengaged are likely to depart (Tinto, 1993). In order for institutions to offer services that connect students they must acknowledge backgrounds and interests of a diverse population.

Age. Students who are over the age of 25 are termed as non-traditional (Deming et al., 2011). Research related to non-traditional student attrition is limited, although the recent influx of older students accessing post-secondary is changing this trend (Aycock, 2003; Sissel, Hansman, & Kasworm, 2001; Tinto, 1993). Non-traditional students, either starting for the first time or returning to college, may feel marginalized in the college environment (Tinto, 1993). Many times for a non-traditional student college attendance is in addition to several other responsibilities including family and work obligations. Further, non-traditional students may be less readily open to admitting need for academic assistance and therefore avoid using services designed for academic support. Tinto (1993) contends that institutions need to design programs, policies and procedures that focus on reducing barriers for non-traditional students in order to integrate them into the college community.

Gender. The majority of students in attendance at for-profit colleges tend to be women (Deming et al., 2011). The literature related to gender differences, as an isolated factor, is somewhat sparse in comparison to other characteristics associated with

persistence. As college entry has become more accessible, women have constituted a larger percentage of the post-secondary population than men. (Kuh et al., 2007). Women are also more likely to persist to graduation and obtain their bachelor's degrees (Astin & Oseguera, 2005; Kuh et al., 2007). Some scholars argue that gender cannot be explained as having an exclusively significant relationship to persistence (Murtaugh, Burns, & Schuster, 1999). However, research suggests that gender does play a role in student persistence (Leppel, 2002; Tinto, 1993). Some factors that are found to influence persistence affect men and women differently. Nevertheless, gender-based experiences can provide provides insight to understanding integration and service quality.

Enrollment status. A part-time student is defined as an individual who is enrolled in fewer credit hours than necessary to be considered a full-time student by the institution (Laird & Cruce 2009). Students who enroll in fewer than 12 credit hours are less likely to persist (Laird & Cruce 2009; Nora, Barlow, Crisp, 2005). Full-time students may be more committed to their course of study than students who are considered part-time (Braxton, 2000). Many times part-time students are balancing several outside commitments in addition to their coursework (Laird & Cruce 2009). Institutions need to be mindful of the barriers to academic and social integration for students who have various obligations outside of being a student (Strange & Banning, 2001; Tinto, 1993).

Each of these attributes plays a role in student departure; nonetheless, Tinto's model places significant importance on academic and social integration in the development of his theory of student dropout. When discussing student persistence, scholars most commonly refer to Tinto's (1993) interactionalist theory, which maintains

that students' integration in the academic and social network of the college environment is a significant predictor of whether they persist or depart the institution (Braxton, 2000; Braxton et al., 2004).

Research studies also support four primary conditions that are essential to student persistence and institutional improvement. These include expectations, support, feedback, and involvement (Tinto, 2009). These four conditions offer pathways for proprietary institutions to address their role in student persistence. Effective retention programs need to integrate all students into a supportive social and academic environment (Harper & Quaye, 2009). Faculty and staff should be conscientious about creating meaningful opportunities to reach out to students. The institution ought to proactively solicit students' feedback to improve faculty teaching, support services and student learning, through course evaluations or other survey instruments (Tinto, 2012).

Institutions Influence on Persistence

In addition to the pre-entry characteristics, four common themes may affect students' ability to integrate into the social and academic structures of the community: adjustment, difficulty, incongruence and isolation (Tinto, 1993). These factors each have a measure of influence from students' previous experiences and attributes, however, they are also dependent upon the institution's ability address these issues.

Adjustment to college. As students transition to a new environment there is a period of time when they are adjusting to new social and intellectual challenges. A lack of coping strategies or previous experiences can make this process of adjustment a difficult hurdle (Tinto, 1993). Practitioners have created many programs and support services to serve students through the process of adjusting to college. Examples of these

efforts include orientation programs, peer mentoring, early alert systems that identify students who are at risk, summer bridge programs and intrusive advising (Davidson, Beck, & Milligan, 2009; Kuh et al., 2008; Tinto, 1993, 2012). These services and others appear on many campuses; however, an array of services is not enough without ensuring high quality and customized services to meet the needs of the students they are intended to serve (Harper & Quaye, 2009; Kuh et al., 2008). How students respond to the campus environment varies, and services for students need to be intentional with well-conceived outcomes (Harper & Quaye, 2009).

Difficulty in college. There are a variety of contributing factors that can influence a student's social and academic experience during college. The student's high school academic performance is a consistent predictor of student's first year college academic outcomes as it relates grade point average (Habley et al., 2012; Tinto, 1975). However, high school academic success does not predict consistent performance in coursework beyond the first year. Students who enter college with lower GPA's and ACT scores are more likely to have a challenging time with the academic rigor of the institution (Kuh et al., 2008). An important observation is that high school GPA merely measures students' success based on the expectations set forth by the school but does not identify how well the student is prepared to negotiate the academic expectations of college (Balfanz, 2009; Habley et al., 2012). High school GPA provides a good indicator for course placement but not college academic preparedness or success. Some estimates suggest that as few as one-third to half of high school graduates are academically prepared for college (Balfanz, 2009; Habley et al., 2012). There is a growing discussion among educators about students' under-preparedness to successfully navigate post-secondary academic

expectations (Howell, 2011), but there are also several non-cognitive variables that contribute to academic difficulty.

Non-cognitive variables contributing to academic outcome include, among many others, self-efficacy, outside activities, encouragement from parents or support systems, and a commitment to persisting to graduation. Some students struggle from a lack of self-efficacy or self-confidence in their ability to be successful in the college environment (DeWitz, Woolsey, & Walsh, 2009). Additional time commitments such as work or extracurricular activities can influence students' academic performance and studies have shown that students who have outside distractions beyond course work tend to have lower grade point averages (Ransdell, 2001). An individual commitment to academic success or poor academic performance may also be a result of a lack of desire to persist (Tinto, 1993).

As students experience academic difficulties, a host of other issues many times follow. These include struggling with completing academic assignments, not attending class, and lacking ability to develop peer relationships and social networks (DeWitz et al., 2009). Peer groups remain one of the most important contributors that encourage undergraduate students' growth and development (Astin, 1993). Creating social networks and peer relationships may not be possible for every student. Lacking these connections can inhibit a student's coping skills, further aggravating difficulty in the college environment (Upcraft, Gardner, & Barefoot, 2005). The academic demands of the institution may contribute to the lack of fit for the student, leading to the feeling of incongruence.

Incongruence. Incongruence is a Tinto's term acknowledging the mismatch between the student's preferences (needs or interests) and the institution. When the fit between student and institution is a poor one, an individual begins to feel disconnected and looks to departure as a means of coping with the stress brought on by the incongruence (Rootman, 1972; Terenzini & Pascarella, 1977; Tinto, 1993).

Incongruence manifests in multiple ways that influence the student's social and academic integration (Tinto, 1993). Students may view their abilities, skills or interests as not matching the institution's expectations. This could be a result of academic demands being too difficult or from the student not feeling academically challenged (Levitz, Noel, & Richter, 1999; Tinto, 1993). In either case, incongruence leads to a lack of satisfaction, poor well-being, and issues with performance that lead to isolation (Gilbreath, Kim, & Nichols, 2011).

Isolation. This factor relates directly back to Durkheim's (1951) theory of departure where he identified the influence of the individual's need to be woven into the fabric of society (Tinto, 1993). The feeling of being alienated and isolated may more likely result in suicide. Isolation on the college campus occurs as a result of a lack of meaningful connections within the community. These connections extend to peers, faculty or other members of community where relationships, for whatever reasons, have not been formed. Isolation, though possibly a result of incongruence or academic difficulty, is a stand-alone factor that can play a significant role in departure (Tinto, 1993). Levitz et al. (1999) concurs that social isolation is a factor that ultimately can drive departure decisions.

These four factors (adjustment, difficulty, incongruence, and isolation) each independently and collectively influence students' academic and social integration. Factors occurring after entry into college matter more than pre-college characteristics in regards to decisions to persist or depart the institution (Tinto, 1993). There are several methods to accomplish student integration, and according to Kuh et al. (2008), practitioners should seek ways to channel student energy towards educationally effective activities.

Limitations to Tinto's Integration Theory

Researchers have primarily applied and empirically tested Tinto's (1993) model within the traditional institutional setting, four-year residential experience. Several studies have utilized Tinto's integration theory as a foundation to expand the understanding of integration and student persistence as it relates to pre-entry characteristics and institutional type (Bean, 1980; Pascarella & Terenzini, 1980; Pascarella, Terenzini, & Wolfle, 1986). Scholars have not often applied Tinto theory to distance education programs. Distance education defined for these purposes as learning occurring in a different place from teaching. In most cases, faculty members and students are physically separated and teaching/learning requires a technological communication network (Garrison, 2006; Shank & Sitze, 2004).

Sweet (1986) adapted Tinto's conceptual framework to research 356 distance learners at the Open Learning Institute in British Columbia. This study revealed that Tinto's model resulted in "adequate predictive validity and consistency in the relationship between the variables" (Sweet, 1986, p. 206). Sweet (1986) examined variables including, age, sex, geographic location, goal expectation, perceived academic

performance, tutor rating, institution commitment, and assignment completion in regards to predicting persistence. This study concluded that student characteristics explained 11% of the criterion variance and academic and social integrations explained 18% (Sweet, 1986). Based on these outcomes, Sweet supports the use of Tinto's model for non-traditional educational settings such as distance learning.

Institutional Actions

There is a call for effective action on behalf of institutions to make strides in increasing college retention rates. Many scholars believe that a college education cannot be the process of "sink or swim," but should be a process in which the institution provides an environment for student success (Kuh et al., 2008; Tinto, 1993; Upcraft et al., 2005). Universities have implemented protocols and services to address student persistence, yet their efforts appear to be disconnected and lack a coherent framework to retain students (Habley et al., 2012; Kalsbeek, 2013; Tinto, 2012). There are four conditions that are recommended for student success that institutions need to incorporate into the campus culture in order to encourage college completion (Tinto, 2012). These conditions include communication, support, assessment and involvement.

Communication. First, institutions need to clearly communicate to students the factors necessary for successful completion. These include defining rules, regulations, and requirements as well as conveying the sentiment that students can meet these standards (Tinto, 2012). Institutions must review processes and policies to determine in what ways these help or hinder all students' continuous enrollment (Kalsbeek, 2013). Institutions need to carefully examine their expectations of students and the manner by which these expectations are communicated. Expectations fall into three categories:

student success at the institution, success in the program of study, and success in the coursework (Tinto, 2012). Support for student success in these three broad categories includes administrative offices such as advisement, registration, and financial aid. Faculty play a pivotal role as well, they have a direct link to students and can use this connection to convey institutional expectations, program requirements and individual class performance. Faculty methods of communication include syllabi, and formal and informal dialogue with students individually or in group's (Tinto, 2012). Further, communication is the key component of distance education. In order to better understand and serve students, Garrison (2006) recommends an examination of the communication needs of students who attend a specific institution and not generalize to all distance education programs.

Support. Institutions provide support in three forms: academic, social, and financial. Institutions need to devise support services that are not generic in nature but are specific to the individual needs of the students whom they serve (Tinto, 2012). In order to effectively implement retention initiatives, institutions must invest in understanding students, including their backgrounds, stressors and goals (Kuh et al., 2008). Institutions need to assess students' academic abilities and then determine institutional expectations that reflect the welfare of students above other goals (Tinto, 2012). The importance of student welfare should be conveyed in both words and actions. Examples include incorporating the priority of student welfare within the institution's mission statement and the strategic goals.

Assessment. Institutions must also dedicate energy/resources to assessment and feedback as a third condition of student success. There are multiple formats and

categories of assessment options. Proprietary schools must identify the criteria to define student success and the criteria need to align with institutional expectations. Assessment can also provide needed information for determining the types of support services the institution should provide. Many institutions employ early alert systems to identify students at risk of early departure (Davidson et al., 2009). There are two important features of an early alert system (University Leadership Council, 2009). First, faculty members report class attendance and second, faculty members submit alerts utilizing an extensive range of indicators. Class attendance offers the earliest and best indicator of students' academic struggles (University Leadership Council, 2009). According to Davidson et al. (2009), it is difficult for practitioners to identify students who will or will not persist to graduation; the process for identification is complex and imprecise. Scholars recommend that the earlier institutions take action to address potential problems the lessor likelihood the concern will evolve to a departure issue (Tinto, 1993).

Involvement. The fourth condition of retention is involvement. Tinto (2012) defines involvement as students “belonging to at least one significant community and finding meaning in the involvements that occur within that community” (p. 67). Faculty members play an important function in developing a student's sense of belonging and connection to the institution. Fostering opportunities for collaborative learning and project-based assignments not only leads to a greater likelihood of academic integration but also the development of peer relationships, which assist in social integration (Pascarella & Terenzini, 2005; Tinto, 2012).

The classroom experience and manner in which students participate in their learning is linked to student engagement in the campus community (Liu & Liu, 1999).

However, teaching and learning may not occur in the same physical space, such as the traditional classroom. On-line programs must negotiate teaching at a distance and still create a connection between the student and the institutional community. Holmberg's (1985) theory of teaching at a distance outlines effective measures to support the on-line learning process. This prescriptive teaching theory recommends making the study relevant to the individual learner, creating feelings of rapport between the learner and the institution, facilitating access to course content, engaging the learner in activities, discussions and decisions; and encouraging regular and ongoing dialogue (Holmberg, 1985, p. 10).

Student persistence is a complex phenomenon that is influenced by several factors, including student's pre-entry characteristics, social and academic integration within the college community, and institutional response (Tinto, 1975, 1993, 2012). Examining student satisfaction as it relates to student expectations and perceptions of the college environment is thought provoking for scholars and researchers. Student satisfaction is an important factor in student persistence (Bryant, 2006). More satisfied students are more likely to commit to the institution (Kuh et al. 2005; Tinto 1975, 1993). The service quality model recognizes that consumers compare expected service with perceived service to determine level of satisfaction (Parasuraman et al., 1985). One of the many characteristics of for-profit colleges is offering educational experiences that are accessible and flexible with a business model approach of providing education for the consumer (Ruch, 2001). The service quality model aligns well as a lens to examine students' perceptions that may influence decisions to persist or depart the institution.

The Service Quality Paradigm

Service quality captured an American audience in the 1980's, with the onset of the recession industry leaders clamored for a competitive edge to improve customer satisfaction (Parasuraman, Zeithaml, & Berry, 1988). Quality, as related to manufacturing and goods, is definable and acceptable. However, quality becomes more elusive when considered in reference to service or performance (Parasuraman et al., 1985; Zeithaml, Parasuraman, & Berry 1990). The term quality is a difficult concept about which to find consensus, because "Quality, like beauty, is in the eye of the beholder; it has a different meaning for different people" (Tan, 1986, p. 224). As scholars struggle to give this term a coherent definition, many use quality as a descriptor to rank everything from the cars we drive to the colleges we attend (Tan, 1986). Uncovering consumers' perceptions of quality could lead to enhancing service and performance, identifying areas for improvement, making advances in efficiencies, and gaining insight into the organization (Grönroos, 1984; Yesilada & Direktor, 2010; Zeithaml et al., 1990).

Defining Service Quality

In an attempt to understand service quality, Parasuraman et al. (1985, 1988) identify three broad characteristics unique to performance or service: intangibility, heterogeneity, and inseparability. Intangibility acknowledges that service is something a consumer cannot handle, touch, or feel and as such it is difficult to evaluate. Not only is service intangible, it is short-lived, and only lasts as long as the activity takes place (Hill, 1995; Ramseook-Munhurrun, Lukea-Bhiwajee, & Naidoo, 2010). Heterogeneity describes a lack of uniformity. Service varies between two entities and although

replication can be consistent it cannot be identical (Grönroos, 1984; Hill, 1995). Organizations can guide performance, yet ultimately service is dictated by human behavior that leads to an interaction with the consumer (Ramseook-Munhurrun et al., 2010; Zeithaml et al., 1990). Further, the consumers' evaluation is inherently individualized and complex (Zeithaml et al., 1990). The third distinctive characteristic is inseparability. Service usually occurs in tandem between the provider and the consumer. In doing so, performance often happens at the same time as consumption (Clewes, 2010; Zeithaml et al., 1990).

The combination of these three characteristics-- intangibility, heterogeneity, and inseparability captures the essence of the concept of performance, yet demonstrates the difficulty of creating a universal definition of service quality (Wicks & Roethlein, 2009). Nevertheless, over the past 30 years scholars have drafted, edited and reexamined the definition of service quality. Perhaps the earliest definition comes from Lewis and Booms (1983), indicating that services provided need to match the customer's expectations. Grönroos (1984), building on this concept, defined service quality as a comparison between what the customers expect and their judgment of the service received. Zeithaml (1988) explained service quality as the concept of the consumer's judgment of the superiority or excellence in service delivery. Wicks and Roethlein (2009) concluded that the degree of quality is the magnitude in which customer satisfaction is attained. Overall, there is a general consensus in definition of service quality, where customers' judgments indicate level of excellence. However, there is still a measure of haziness as to what excellence or superiority looks like (Abdullah, 2006).

Grönroos (1984) service quality model. In the early 80's, amongst the handful of examples of service quality literature, Grönroos (1984) provided one of the first conceptual models. This model indicates that the consumer's evaluation of service quality depends upon two variables, the expected service and perception of quality. The interconnectedness of technical quality, functional quality and corporate image influences these two variables, creating Grönroos's understanding of service quality (Grönroos, 1984).

Technical quality is rather objective, as this category is about what the consumer receives as an outcome. Using higher education as an example, outcomes could be a passing grade or a diploma. Functional quality, on the other hand, is the interaction or process that occurs between the consumer and the business that leads to an outcome. This evaluation is more subjective in nature as it relies on consumers' perceptions of the interactions and, as Parasuraman et al. (1985, 1988) claims, functional quality is not an object but is the collection of intangibility, heterogeneity, and inseparability.

The third category is corporate image. Consumer expectations are in part built on individual perceptions of corporations' values, and what they stand for or stand by. Furthermore, customers' perceptions of the corporate image shapes consumers' technical and functional evaluations. Parasuraman, Zeithaml and Berry (1985) incorporated some of Grönroos's thinking as they developed their service quality model (See Figure 2 below).

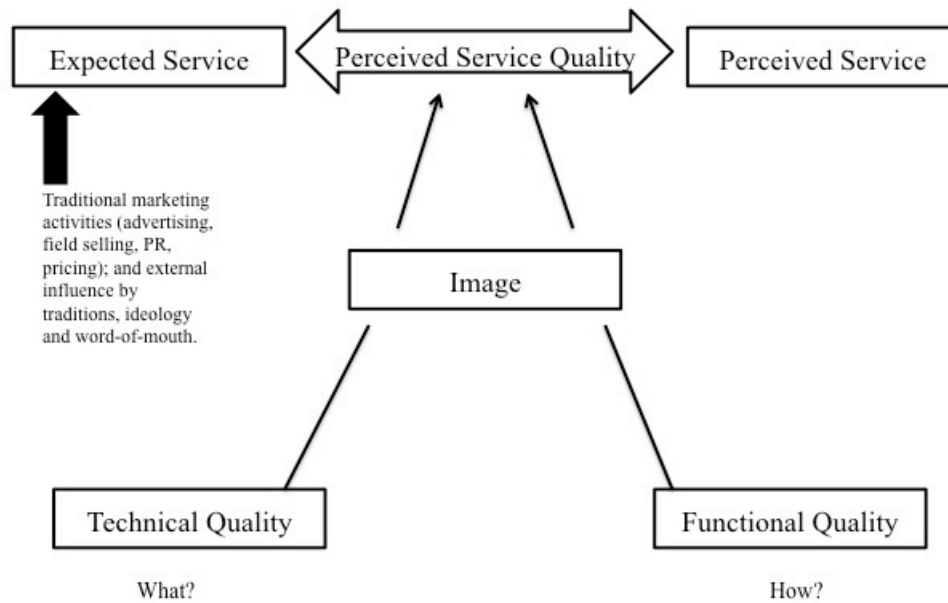


Figure 2. Diagram of Grönroos service quality model. From “A service quality model and its marketing implications” by C. Grönroos, 1984, *European Journal of Marketing*, 18(4), p. 40.

Parasuraman, Zeithaml and Berry’s service quality model. In 1985, Parasuraman, Zeithaml and Berry embarked on a qualitative exploratory study using a cross section of businesses involving both customers and executives. The focus of this study was to create a better understanding and a more definitive definition of service quality. These scholars have added to this discussion in many subsequent journal articles, monographs and books to expand the understanding of customers’ perceptions and expectations. Parasuraman’s et al. (1985) seminal research has provided a framework for quality and an instrument for measuring performance that has been used in various industries for decades (Yesilada & Direktor, 2010; Woo & Ennew, 2005).

This study was consistent with Grönroos’ (1984) conceptual model establishing that service quality is the result of the consumer’s comparison of expected service with perceived service. Parasuraman et al. (1985) uncovered that regardless of type of service,

consumers employ similar criteria in evaluating service. In addition, this research revealed consumers' process of assessment, outlining 10 determinants that form perceptions about service quality (Zeithaml et al., 1990). Parasuraman et al. (1985) labels these characteristics as "service quality determinants" (p. 46) that include: tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding/knowing the customer, and access. Along with these determinants, Parasuraman et al. (1985) developed a set of distinct gaps; see Figure 3 below. These gaps appear between the service provider and the service quality perceptions of the consumer.

The first four gaps identified are what Parasuraman et al. (1985) define as areas of deficiencies or gaps between the consumer and service provider. Closing the first four gaps is the overall objective to improve service quality. Improvements made in Gaps 1 through 4 lead to improvement in Gap 5, which frames the service quality model (Zeithaml et al., 1990).

Gap 1:	Consumer expectation-management perception gap
Gap 2:	Management perception-service quality specification gap
Gap 3:	Service quality specifications-service delivery gap
Gap 4:	Service delivery-external communications gap
Gap 5:	Expected service-perceived service gap

Figure 3. Overview of service quality gaps. From "A conceptual model of service quality and its implications for future research," by A. Parasuraman; V.A. Zeithaml, & L.L. Berry, *Journal of Marketing*, 49(4), 41–50.

Service quality (q) = perception (p) - expectation (e). As the service quality literature continued to grow, it lacked quantitative instruments to gauge customer's evaluation of performance (Parasuraman et al., 1988). Building from previous research, Parasuraman, Zeithaml and Berry (1988) set out to develop an instrument that could be used to assess customer perceptions of service quality for multiple applications. The instrument, SERVQUAL, designed in 1988 and followed by updates in 1991 and 1994, compares consumers' perceptions of the service received with expectations. SERVQUAL is the most widely used tool to measure service quality among several different industry types (Buttle, 1996; Sahney, Banwet, & Karunes, 2004; Yesilada & Direktor, 2010).

In the process of determining the scale's reliability, factor structure, and validity Parasuraman et al. (1988) found that some of the service quality determinants identified in the study conducted in 1985 overlapped, thus refined the dimensions to five categories. (Parasuraman et al., 1994; Zeithaml et al., 1990). These five categories became the criteria for assessing service quality. The new list retained tangibles, reliability and responsiveness, and added assurances, which combines the categories of competence, courtesy, credibility and security. The list consolidated the concepts of access, communication and understanding into the category of empathy. The determinants and definitions as established by Parasuraman et al. (1985) are identified in Figure 4, below.

Service Quality Dimensions	Definition
Tangibles	Appearance of physical facilities, equipment and personnel.
Reliability	Dependable and accurately provide service as promised.
Responsiveness	A willingness of the service providers to promptly assist customers.
Assurance	Knowledgeableness and courtesies of service providers and ability to inspire trust and confidence.
Empathy	Ability to provide caring and individualized attention.

Figure 4. Definitions of the five service quality determinants. From “A conceptual model of service quality and its implications for future research,” by A. Parasuraman; V.A. Zeithaml, & L.L. Berry, *Journal of Marketing*, 49(4), 41–50.

Parasuraman et al. (1988) constructed a 97-item instrument subjected to two stages of testing, first to reduce the number of items through scale purification and second to establish reliability. The process of instrument purification eliminated items among perceptions of the respondents that were not differential in regards to the service quality (Zeithaml et al., 1990). Through repeated testing, the results reduced and refined the instrument to 22 items. The combination of a qualitative and quantitative approach to measure consumers’ expectations and perceptions led to the creation of SERVQUAL, a 22-item instrument using five service quality determinants designed to be generic and consistent within different types of service industries (Parasuraman et al., 1988, 1994; Woo & Ennew, 2005). Arambewela & Hall (2006) identified the various industry types who utilized SERVQUAL to measure service quality, see Figure 5. However, regardless of the numerous studies, not all scholars agree the SERVQUAL is a useful instrument to measure consumers’ perceptions and expectations of service quality.

Areas of Applications	Authors
Banking	Lassar et al., 2000; Marshall and Smith, 1999; Angur et al., 1999
Brokerage services	Lin and Wei, 1999
Building maintenance	Siu et al., 2001
Higher education	Engelland et al., 2001 and 2000; Comm et al., 2000; Houston and Rees, 1999; Kwan and Ng, 1999; Hampton, 1993; Davis and Allen, 1990.
Information services	Jiang et al., 2000; Van, D. et al., 1999; Kettinger and Lee, 1999
Local authority services	Wisniewski, 2001; McFadyen et al., 2001; Donnelly and Shiu, 1999
Market research	Donnelly et al, 2000
Medical and health care services	Dean, 1999; Curry et al., 1999; Llosa et al., 1998; O'Connor and Bowen, 1990.
Restaurant service	Heung et al., 2000
Retailing	Metha et al., 2000a, 2000b
Shipping	Durvasula et al., 1999
Travel services	Kayanama and Black, 2000

Figure 5. Major applications of SERVQUAL instrument. From “A comparative analysis of international education satisfaction using SERVQUAL,” by R. Arambewela, & J. Hall, 2006, *Journal of Services Research*, 6, p. 148.

Service Quality Debate

Upon release of SERVQUAL in 1988, several conceptual and empirical studies examined and evaluated the instrument. Parasuraman, Zeithaml and Berry have been a part of this process and have revised and refined the instrument on two occasions (1991 and 1994). Cronin and Taylor (1992) identified several issues with SERVQUAL, identifying flaws in the model and the measurement should be based on performance only, as opposed to perceived quality minus expected quality (Arambewela & Hall, 2006).

Cronin and Taylor (1992) contend that Parasuraman's et al. (1988) reliance on Oliver's (1980) disconfirmation paradigm confuses satisfaction theory with service quality (Buttle, 1996). Oliver's (1980) research explains that satisfaction is derived from a discrepancy between an individual's perceptions compared to the initial reference point called disconfirmation. This is the state where an expectation differs from the reference point. If the outcome is less than expected, this is considered negative disconfirmation, whereas, if the outcome is better than expected, this is a positive disconfirmation (Oliver, 1980).

Oliver's conceptual thinking led to Parasuraman's et al. (1985) determination that service quality is perception minus expectation. Critics contend that service quality should be based on performance and is influenced by perceptions not expectations (Abdullah, 2006; Buttle, 1996; Carrillat, Jaramillo, & Mulki, 2007; Cronin & Taylor, 1992). As a result of these findings, Cronin and Taylor (1992) introduced a tool that is performance based, SERVPERF. This one-dimensional scale examines performance as a means to measure service quality.

Teas (1993, 1994) maintain that the SERVQUAL instrument raises empirical and theoretical questions related to the gap between customers' expectations and perceptions and the five determinants. Some scholars argue there is little evidence that customers assess service quality in terms of perceptions minus expectations (Teas, 1994). Further, the concept and definition of what Parasuraman et al. (1985) explains as "expectation" is poorly described and lacks theoretical justification (Carrillat et al., 2007; Teas, 1994). Additionally, Teas (1994) suggests the five determinants may not be applicable to all

types of service industry organizations and that the five determinants appear to be intercorrelated (Buttle, 1996).

Teas (1993) operationalized service quality by introducing a performance model (EP model) and normative quality model (NQ model). The EP model integrates the notion of “classic ideal point” into perceived quality service. Classic ideal point represents an ideal standard defined by the individual. The NQ model uses the classic ideal point with the SERVQUAL expectation concept (Lee, Lee, Yoo, 2000).

In response to Cronin and Taylor (1992) and Teas (1993), Parasuraman et al. (1994) clarified and updated service quality model and instrument but also defended their previous research and provided counterarguments. Parasuraman et al. (1994) outlined three dominant questions identified by the Cronin and Taylor (1992) and Teas (1993) studies which include conceptual issues, methodological and analytical issues, and practical application concerns. Parasuraman et al. (1994) rejects the conclusions drawn by Cronin and Taylor (1992) that a performance based measure is superior to perception minus expectation. Parasuraman et al. insists that the previous research supports the service quality disconfirmation theoretical approach (Lee et al., 2000; Parasuraman et al., 1994).

Parasuraman et al. (1994) takes exception to the discussion posed by Cronin and Taylor (1992) concerning the attitude formation versus attitude measurement. Cronin and Taylor (1992) remark that service quality should be conceptualized as an attitude formation as opposed to a disconfirmation measurement (Lee et al., 2000). Parasuraman et al. (1994) respond that Cronin and Taylor misunderstood the SERVQUAL instrument,

the measurement of quality refers to a point in time, not to the development or formation of this perception.

Parasuraman et al. (1994) agrees that there is some confusion related to service quality and satisfaction theory. As a result, Parasuraman et al. (1994) clarifies service quality as a global assessment that occurs from the accumulation of transactions, whereas satisfaction is the result of a transaction-specific measurement. This suggests that over time these incremental transactions lead to individual expectations of service quality (Lee et al., 2000). However, scholars continues to debate if satisfaction follows service quality or service quality creates an individual's satisfaction, (Lee et al., 2000; Parasuraman et al., 1994) leading to the need for refinements to the models.

Some of these refinements occurred in 1991 when Parasuraman et al. reexamined their instrument and made modifications to the terminology. The first change reflects the use of the word, "should." The updated instrument changed the statements reflecting, "would" or "will" (Lee et al., 2000). The second update included changing the nature of the questions from negatively worded items to positively worded statements. This revised version of SERVQUAL was tested in five different service markets looking at the association between SERVQUAL gap score and a separate measure of service quality (Parasuraman, Berry & Zeithaml, 1991). The results reported R^2 greater than 0.57 between SERVQUAL gap score and customer ratings.

Another concern relates to intercorrelation among the factors used for the five dimensions (Teas, 1993). Parasuraman et al. (1988; 1994) accounted for this and noted that the average inter-factor correlations consist of .23 to .25, additionally suggesting that future research may benefit from exploring the cause of these interrelationships

(Parasuraman et al., 1991). As this debate continues, the instrument remains a useful tool that has been adapted to many industries including higher education.

The scoring was further refined with the inclusion of weighted estimates of the overall service quality. The survey added a question where individuals were asked to allocate 100 points across the five dimensions (tangibles, reliability, responsiveness, assurance, and empathy) based on how important they consider each service quality dimension (Parasuraman et al., 1991). Weighting the individual dimensions allowed insight into understanding the importance of the service in addition to the gap total.

Service Quality and Higher Education

Grappling with a meaningful definition of service quality becomes even more complicated when connecting this concept to higher education. Federal and state governments, accrediting agencies and the public are holding post-secondary system, including public, private and for-profit institutions accountable to demonstrate student success. (Abdullah, 2006; Tinto, 2012). This shift in accountability measures creates a competitive environment in which institutions examine many approaches in an attempt to reinvent how they do business (Tinto, 2012). Consumers are the sole judge of service quality and in higher education the consumer is generally considered to be the student (Clewes, 2003; Zeithaml et al., 1990). Describing a student using the expression “consumer” or “customer” causes consternation among many educators (Eagle & Brennan, 2007; Mark, 2013). Nevertheless, a priority of post-secondary institutions continues to be recruiting and retaining students (Potts, 2005) and the concept of service quality may provide the needed insight to understand student expectations and to better meet those needs.

The for-profit industry is a growing provider of post-secondary education. The influence of globalization on the economic, cultural, technological and political environment is one of several factors fueling the growth (Morey, 2004). Colleges and universities around the nation are attempting to keep up with demand for educated graduates to join the workforce (MacQueen, 2012). As a result, for-profit institutions are filling the gap and providing education for those who want to quickly transition into the labor force. Proprietary schools offer convenient, accessible, and varied degree programs that largely match market needs. Nevertheless, regardless of the reasons that this industry is growing and students continue to select for-profit institutions for their matriculation, the fact remains that more students depart for-profit colleges than graduate.

Leaders of these institutions have, as Tierney (2011) points out, fought to join the ranks of the post-secondary system. The fundamental idea behind this study makes a related point: if for-profit institutions are to be a part of the post-secondary system, they must also accept the responsibilities and the oversight higher education demands. In an effort to better understand the needs of the students served by for-profit colleges, SERVQUAL may be the instrument best suited to determine how this industry can assess quality.

Service quality, as a theoretical framework, and the SERVQUAL instrument have been used in various industries including higher education. Boulding, Staeling, and Zeithaml (1993) conducted a study using a modified SERVQUAL instrument consisting of 36 statements at an educational setting. The statements were to capture the expectations and perceptions most applicable to the educational system in the study. The authors concluded that the SERVQUAL model adequately summarizes the major forces

that form the customers' opinions and evaluation of the service quality level of the institution. Deductions from the overall service quality results determined that the more positive customers' perceptions of the institution were, the more likely the customers were to make positive word of mouth comments and recommend the institution.

In 1995, Shank, Walker, and Hayes conducted a study analyzing service quality across four institutions (two private colleges, one large state university, and one large regional university) with 686 business students and 14 professors. The purpose of the study was to evaluate service expectations from both student and professors perspective. This included the service provider/professor and the client/student (Shank et al., 1995). The findings indicated that students and professors have different viewpoints of expectations. Students have higher expectations of professors than professors gauge students' expectations. For example, students perceive faculty members as a resource. Students expect faculty members to be aware of not only things that pertain to the classroom but also information about institutional policies and practices. These expectations varied and were not consistent among the institutional types included in this study (Shank et al., 1995).

Canel and Fletcher (2001) analyzed service quality at the University of North Carolina Wilmington to learn about students' perceptions and expectations of the student health center. The SERVQUAL was administered to 500 students and to all 14 Student Health Center employees (unlike the students, employees did not provide demographic information). The study indicated that students found the services provided to be between good and average, whereas the staff felt the service they were providing was between good and excellent. The results indicated that students' perceptions were not

meeting the students' expectations based on their individual account. The students identified that they did not feel safe as a result of their interactions with the health center staff, the information shared was vague to the students about what services were going to be performed and they were unclear if the equipment was up to date.

Higher education has primarily used service quality to uncover students' views of quality (Khodayari & Khodayari, 2011). Revealing the students' perspective on quality service is key for educator's success in retaining students to completion of their degrees (Abdullah, 2006). Service quality is grounded in concepts that are intangible, inseparable, and heterogeneous, and as such can be somewhat obscure when trying to determine student feedback. Nevertheless, these characteristics are very much part of the higher educational environment, as it is very "people-based performance," meaning that education is largely about the interaction that occurs between members of the institution (Clemes, Ozanne, & Tram, 2001, p. 2).

Uncovering student satisfaction as it relates to their expectations and perceptions gives institutions insight about performance levels. This information can be used to enhance services, which are designed to encourage student retention and to better meet student needs. The underlying argument is that students who are satisfied are more likely to persist (Astin, 1993; Kuh, Gonyea, & Williams, 2005; Tinto, 2010). Examining the relationship between service quality and student persistence can assist in discovering pathways for improving the educational experience for the students these institutions serve.

Summary

Whether for-profit schools are referred to as proprietary colleges, niche schools, or career colleges, these institutions provide a unique and viable option for students seeking post-secondary education. They are convenient, and accessible and have been designed to offer programs that are in high demand fields. Their focal point is creating programs that address the needs of the workforce in various communities (Tierney & Hentschke, 2007). Nevertheless, for-profit colleges have been embroiled in several allegations of misconduct as result of questionable departure rates, high student loan debt and inappropriate recruitment methods. To maintain their footing within the post-secondary system these institutions need to acknowledge their responsibility. This includes providing oversight to foster an environment in which students not only enter, but also continue to graduation.

Tinto's (2006-2007) own critique of the situation is very clear: many not-for-profit institutions have not been able to translate what is known about retention into initiatives that lead to student persistence and graduation. This review of the literature suggests that the situation is no better with regard to scholars' understanding of, and practitioners' efforts to improve, retention and persistence for students attending for-profit institutions. In an effort to better understand services that are designed to support student persistence, institutions should solicit student feedback to understand their perceptions and expectations (Tinto, 2012). The purpose of this research is to examine the relationship between students' perceptions and expectations of the quality of services they receive and student persistence using the SERVQUAL instrument.

CHAPTER III

METHODOLOGY

Proprietary institutions provide a variety of innovative approaches to the delivery of coursework, from accelerated programs to flexible schedules. Currently, approximately 10% of enrolled students attend for-profit colleges and the growth rate at these institutions outpaces traditional colleges and universities (Blumenstyk, 2005). Despite for-profit institutions' success in providing access to a college education, over half of their students depart prior to degree completion (U.S. Senate HELP Committee, 2012). Policymakers and educators desire proactive change, calling for transparency and accountability measures.

The purpose of this study was to examine the relationship between students' expectations and perceptions of service quality at Mile High University and those same students' intent to persist and graduate from their college. This chapter provides a detailed description of the research methodology that was used to identify these relationships. In doing so, the content will focus on the purpose of the design, the population and sample, the instrument, the procedures for data collection, and data analysis methods.

Research Design

This non-experimental research design was a correlational study that utilizes multiple regression to investigate whether and to what degree a relationship exist between

students' expected and perceived service quality and students' intent to persist at for-profit colleges (Gay, Mills, & Airasian, 2009). Correlational design allows the researcher to study and describe the relationship between the variables and to predict the outcomes (Wood & Brink, 1998). This statistical process recognizes that multiple factors or variables may influence the dependent variable and it provides the means to measure effects concurrently (Wood & Brink, 1998).

Population and Sample

Student respondents were recruited from Mile High University, a small for-profit college located in the Rocky Mountain region. Mile High University was associated with this study, as it was accessible to the researcher and agreeable to participation as well as meeting the criteria of many of the general characteristics of for-profit colleges. The population included all students who were currently enrolled either as full or part-time in pursuit of a Bachelor's degree in Fall 2014. The average number of undergraduate students in attendance was 1,700; of which 63% were part time. The student population consisted of 68% of females and Black/African American represented 35% and White/Caucasian 28%. The coursework was exclusively taught on-line for their various degree programs which center around business such as, Bachelor of Business Administration-Sales and Marketing and Bachelor of Business Administration-Accounting. In total there were over 15 specialization programs with 97% of the student body were outside of Colorado but located within the United States. In 1999, Mile High University received and continues to maintain regional accreditation through the Higher Learning Commission of the North Central Association of Colleges and Schools (Morey, 2004).

Research Questions

- Question 1: What are the intercorrelations among the gap scores for the five SERVQUAL scales?
- Question 2: What is the relationship between the gap scores and student intent to re-enroll, for each of the five SERVQUAL scales?
- Question 3: What is the relationship between the gap scores and student intent to persist/re-enroll, over and above the unique contributions of the demographic variables, for each of the five SERVQUAL scales?
- Question 4: What is the relationship between the gap scores and student intent to graduate for each of the five SERVQUAL scales?
- Question 5: What is the relationship between the gap scores and student intent to graduate, over and above the unique contributions of the demographic variables, for each of the five SERVQUAL scales?

SERVQUAL Instrument

As the focus of this study was to examine the relationships between service quality and the intent of students to persist at for-profit institutions, a cross-sectional survey design was used. The instrument was an adaption of the SERVQUAL survey. Parasuraman, Zeithaml, and Berry developed SERVQUAL in 1988, as a basic skeleton format designed for modification to meet various needs of a researcher's interest (Zeithaml et al., 1990). This instrument builds upon Parasuraman et al. (1985) conceptual framework that was widely cited and applied in a variety of service industry settings (Clewes, 2010). Beyond higher education these include financial services, travel

and tourism, retail, utility companies, healthcare, and restaurants (Arambewela & Hall, 2006; Hill, 1995).

Overview of SERVQUAL

The service quality model was designed to reveal the gap between perceived and expected service using five service quality dimensions or scales. The dimensions or components expressed in context of higher education are: tangibles (physical appearance of the brochures, website and educational materials); reliability (institutional offices' and departments' performance of accurate and dependable services); responsiveness (a willingness to help students and provide prompt service); assurance (institutional ability to inspire students' trust and confidence by demonstrating knowledge and courtesy); empathy (an institutional environment that cares and shows empathy to students as demonstrated by policies and procedures that reflect individualized attention).

SERVQUAL reliability. SERVQUAL was initially tested with four different industry types that include a bank, credit card company, repair and maintenance company, and long distance telephone service. Based on the psychometric testing of SERVQUAL in these four sample firms, Table 1 summarizes total reliabilities using the 22-item questionnaire based on the gap score computed as $Quality = Perception - Expectations$ with the five determinants (Parasuraman et al., 1988, p. 25). Overall the SERVQUAL instrument demonstrated consistently high reliabilities across the four samples, nearing .9 for each instance (Parasuraman et al., 1988) as identified in Table 1.

Dimensions	Label	Number of Items	Bank	Credit Card Company	Repair & Maintenance Company	Long Distance Telephone Company	Items*
Tangibles	F1	4	0.52	0.62	0.64	0.64	Q1 Q2 Q3 Q4
Reliability	F2	5	0.80	0.78	0.84	0.74	Q5 Q6 Q7 Q8 Q9
Responsiveness	F3	4	0.72	0.69	0.76	0.70	Q10 Q11 Q12 Q13
Assurance	F4	4	0.84	0.80	0.87	0.84	Q14 Q15 Q16 Q17
Empathy	F5	5	0.71	0.80	0.72	0.76	Q18 Q19 Q20 Q21 Q22
Reliability of Linear Combination (Total Scale Reliability)			0.87	0.89	0.9	0.88	

*The item numbers correspond to those of the expectation and perception statements.

Table 1: SERVQUAL instrument reliability coefficients based on Gap score. “SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality,” by A. Parasuraman; V.A. Zeithaml, & L.L. Berry, *Journal of Retailing*, 64(1), p. 25.

SERVQUAL validity. SERVQUAL ascertained validity by establishing content, convergent and concurrent validity (Parasuraman et al., 1988). Content validity utilizes a group of reviewers to determine how appropriate the questions seem, does the scale measures what it is supposed to, and does the scale capture the essence of the construct under review (Litwin, 1995; Parasuraman et al., 1988). The conceptual investigation during the development of SERVQUAL involved an extensive literature review, several in-depth interviews with service industry managers, and focus groups to address content validity (Parasuraman et al., 1985, 1988).

Empirical examination included convergent validity. Convergent validity is testing several different methods to obtain the same information (Litwin, 1995). Parasuraman et al. (1988) conducted many statistical analyses of respondents' overall quality rating with SERVQUAL scores. Their findings revealed that the "strength and persistence" between individuals' ratings for overall quality and the SERVQUAL scores among the four industry samples (bank, credit card company, repair and maintenance company, and long distance telephone service) offer strong support for convergent validity (Parasuraman et al., 1988, p. 28).

Further concurrent validity was also examined. Concurrent validity looks at the correlation between an instrument measurement and another known or standardized scale or measurement (Litwin, 1995). Various studies for example, Babakus and Boller (1991) as well as Brensinger and Lambert (1991) reported that the concurrent validity of SERVQUAL scores across the five dimensions perform fairly consistently (Parasuraman et al., 1991).

The instrument SERVQUAL has been adapted for various audiences. In 1997, a doctoral student used SERVQUAL to examine the importance of customer satisfaction on students' intent to remain in a distance education degree program (Parks, 1997). In doing so, there were minor wording modifications and including a few additional questions specific to the audience: distance learners (Parks, 1997). This modified instrument was used for this study.

Outline of Survey for the Study

There are four parts to the instrument used for this study including the multiple-item SERVQUAL instrument consisting of 27 items using a Likert scale. The

questionnaire utilizes two ratings, expectations and perceptions that are separated into the five dimensions (tangibles, reliability, responsiveness, assurance, and empathy). Students indicated the service quality they would expect to see at a for-profit college institution and then rated the service they actually receive from Mile High University. The Likert scale consists of (1- *Strongly Disagree*; 4- *Neither agree nor disagree*; 7- *Strongly Agree*) to generate students' responses to both expectation and perception of service quality.

Table 2 outlines the number of questions for each dimension.

Table 2

Overview of SERVQUAL Dimensions

Dimension	Expectation Item Numbers	Perception Item Numbers
Tangibles (11)	E1-E11	P1-P11
Reliability (7)	E12-E18	P12-P18
Responsiveness (5)	E19-E23	P19-P23
Assurance (2)	E24-E25	P24-P25
Empathy (2)	E26-E27	P26-P27

Note. The numbers represented in the parenthesis are the number of items in the scale.

Following the individual items, students were asked to allocate 100 points across the five dimensions based on how important they consider each service quality dimension (tangibles, reliability, responsiveness, assurance, and empathy).

Additionally, the questionnaire included three distinct parts. One part examined the overall performance of service using the five service components identified by the SERVQUAL instrument (tangibles, reliability, responsiveness, assurance, and empathy).

Respondents shared how they perceive the overall quality of each of the service features. Followed by a series of questions of overall performance of the institution. This section included two questions to assess intention to persist at the for-profit institution, “Is it your intention to enroll in courses at Mile High University in the following semester” and “Do you intend to complete your degree at Mile High University.” The final part was comprised of a series of demographic questions designed to reveal student characteristics. These include, gender, age, full/part time status, number of credit hours completed, race and ethnicity. The average length of time to complete this survey was approximately 20 minutes.

SERVQUAL Modifications

There were minor modifications to the SERVQUAL instrument these included eliminating three questions and a slight change of wording to match the audience of this study; students attending a for-profit college. Face validity was the starting point that involved having the instrument reviewed by untrained judges; for example friends or family members (Litwin, 1995). Technically, this step is not determining validity it does however allow an initial sense of whether or not the format and overview of the content looks reasonable and appropriate.

In order to test for trustworthiness of the instrument content validity was examined. Content validity is the “degree which a test measures an intended content area” (Gay et al., 2009, p. 155). Determining content validity requires expert judgment of both item and sampling validity (Gay et al., 2009). This study assembled a panel of fellow doctoral students and college administrators to evaluate several aspects of the instrument: clarity, content, length, structure, wording and development of the test, as

well as determining if the instrument matches the objective of the research study. Consistency of feedback led to several minor edits of the survey instrument. These included some words needing to be changed to plural, two of the questions were similar in nature and should be combined, and the formatting of the questions was inconsistent. Each of these items was corrected prior to data collection.

Data Collection

Qualtrics was the tool of choice to design and administer this survey. This online company offers secure data transmission through SSL encryption, daily backups to multiple locations to retain the data and assurances of confidentiality of materials (Hite, 2011). To comply with Institutional Review Board (IRB) standards (see Appendix A for IRB approval), participants were informed that the information shared will remain anonymous, and the participation was voluntary. One of the features of Qualtrics was anonymous survey distribution. Applying this service disabled Qualtrics ability to track any personal information such as an individual's IP address or recognize who was taking the survey (Anonymous survey link, 2014).

The transmission of the survey link was sent from the institution's Chief Academic Officer to the participants in an e-mail format. There were 1700 undergraduate students who were sent the survey link. The distribution process of the survey was consistent with the Dillman Total Design Method. Dillman Total Design Method includes a series of recommendations for informing and encouraging participation. This begins with sending a personalized letter in advance of including the actual survey link (Dillman, 2000). This letter provided an introduction to the survey that

explained the purpose of the study and how the information was used (Dillman, 1991). In total, Dillman (2000) recommends five points of contact with the survey recipients.

A few days following the distribution of the advanced notice e-mail, was a letter further detailing the importance of participation in this study, along with instructions and a link to the survey instrument. Five days after the initial questionnaire was distributed, a follow-up notice that thanked those that had already responded and requested a response from those who had not yet participated. Ten days after the follow-up notice, a new cover letter and the link to the survey instrument was sent to participants that convey the message that respondents and their comments are important to the success of the survey. Seven days following the previous email was a final thank you for participation and one last appeal to students to participate in the survey before it closed.

The timeline for data collection and instrumentation is shown in Figure 6.

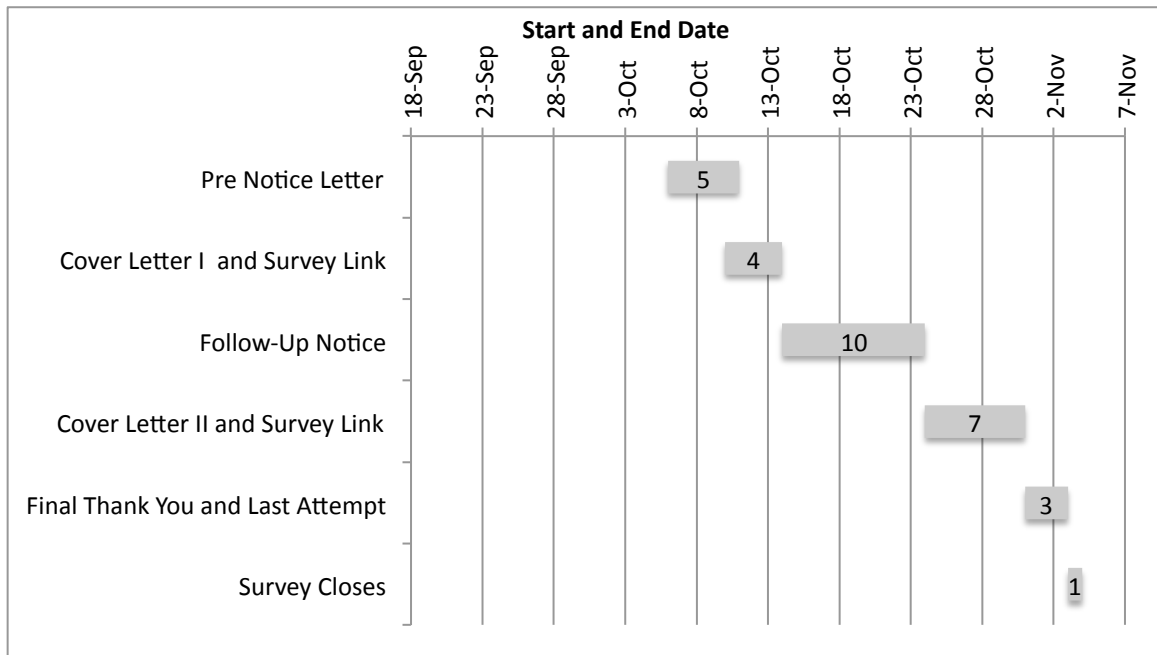


Figure 6. Timeline for survey distribution and data collection.

It should be noted that the Dillman Total Design Method recommended that each of those points of contact utilize a different delivery method, for example regular U.S. mail to Federal Express to telephone, however, this study used one consistent delivery method through e-mail distribution (Dillman, 2000). When using email as a method, Dillman, Smyth and Christian (2009) recommend that the email contacts should be short and to the point.

Data Analysis

Data analysis was carried out through the use of the SPSS, version 22.0, to obtain the descriptive statistics, Pearson Correlations Coefficients and conducted Linear and Logistic Regression Analysis. The descriptive statistics provides initial information about the selected variables (gender, part-time/full-time status, age and ethnicity) and the research questions. The Pearson Correlations Coefficients was examined using each of the independent variables. These included the gap scores for each of the SERVQUAL dimensions (tangibles, reliability, responsiveness, assurance, and empathy). The gap score was computed using student responses to each item related to their perceptions and expectations, subtracting them from one another and totaling the score by dimension. Dividing the total score for each dimension by the number of questions created the dimension gap score. Linear and Logistical regression analysis was used to predict the probability of student persistence based on responses to the behavioral questions: “Is it your intention to enroll in courses at Mile High University in the following semester” and “Do you intend to complete your degree at Mile High University.” The predictor variables were the five gap scores representing each SERVQUAL dimension. The final analysis included the two behavioral questions along with the SERVQUAL dimensions

and examines the unique contributions of the demographic variables (gender, part-time/full-time status, age and ethnicity).

Validity

There are two essential types of validity that were examined, external and internal. External validity relates to the ability of the study to be generalized, meaning can the findings of the study extend to the population that is represented by the sample. Internal validity refers more so to the research design and examines the steps taken to conduct the study and assess if outside factors could influence the outcome variables.

External Validity

A convenience sample includes everyone in the population having an equal chance of participation. Nevertheless, students that self-select to complete the survey instrument may not result in representation of the entire population. It was necessary to take steps to encourage participation to reduce threats to external validity. Utilizing an on-line format, Dillman et al. (2001), established critical elements needed for effective web-based survey and reduction of errors. Dillman et al. (2001) outline eleven principles for the design and layout of a web-based instrument in an effort to ensure each respondent has equal chance of receiving and responding to the survey.

The following guidelines are:

Principle 1: The main page of the web questionnaire should provide a welcome and instructions to navigate the survey.

Principle 2: The first screen of survey should display a question that is easily comprehended and can be answered by all respondents.

- Principle 3: The format used for the survey questions should reflect what the norm would be for a paper questionnaire.
- Principle 4: Individual questions should limit line length to not extend excessively across the screen.
- Principle 5: Include instructions on the appropriate computer actions needed to navigate and respond to the survey questions.
- Principle 6: As needed instructions should be included throughout survey on how to respond to the questions.
- Principle 7: Do not require respondents to provide an answer to each question before being allowed to progress to the next question.
- Principle 8: Design the web questionnaire to allow a respondent to scroll from question to question.
- Principle 9: Limit the number of answer choices so they can display on one screen.
- Principle 10: Provide respondents with a sense of the completion progress.
- Principle 11: Be cautious of questions that are open-ended and/or check-all-that-apply, as these can influence non-response rates.

The inclusion of these principles not only creates what Dillman (2001) refers to as respondent-friendly questionnaire but also has been found to improve response rate.

Internal Validity

Another factor to consider was internal validity, this is the extent to which as a researcher you are able to say that no other variable except the ones you are studying caused the result. There are several possible threats to the internal validity that include subject characteristics, occurrence of unplanned events, implementation of the study or

the process of data collection. There are steps to limit these threats for example; implementation and data collection for all participants was the same. Each participant received the same e-mail messages and the survey was only available web based. Mile High University is online institution so assumption was made that access to a computer and the Internet was available for all participants in a setting of their choice. Further the individual participants maintained locus of control of both a computer and the Internet connection and as such, were not reliant on the University to provide either of these tools to complete the survey. Also, the directions provided in the instrument were simple to follow and highlighted at the start of each section of the survey.

Reliability

Reliability is concerned with if the questionnaire produces the same results if repeated under similar circumstances (Bryman, 2012). Using quantitative methods looks for consistency of results. Cronbach alpha was tested to measure internal consistency of expectation, perception and gap total for each SERVQUAL dimension. Cronbach alpha statistic generally range from 0 to 1 and scholars suggest that above .8 is preferred (Nunnally & Bernstein, 1994).

Summary

The purpose of this study was to examine the relationships between student expectations and perceptions and how they relate to service quality and student persistence at a for-profit college. A modified SERVQUAL instrument was administered to students who are pursuing their Bachelor's degrees. The research objectives were to disclose the relationship between expectation score and perception score for each of the determinants (tangibles, reliability, responsiveness, assurance, and empathy).

Additionally, the study considered the Gap score between the two scales and the demographic variables, as well as the questions, “Is it your intention to enroll in courses at Mile High University in the following semester” and “Do you intend to complete your degree at Mile High University.” Various statistical analyses were employed and the findings reviewed in the subsequent chapter.

CHAPTER IV

FINDINGS

The purpose of this study was to examine the relationship between Mile High University students' expectations and perceptions of service quality and their intent to persist and graduate. The service quality questionnaire, SERVQUAL (Parasuraman et al., 1985), was administered to current undergraduate students attending Mile High University to assess the quality of service provided by this for-profit institution. This instrument measures whether students perceived the service delivery quality as better than or worse than what was expected.

The statistical analysis conducted include Pearson correlation matrix, linear regression, and binary logistic regression. This chapter reviews the results of the data analysis addressing the following research questions.

Research Questions

The research questions were designed in keeping with the literature to explore the relationship between students in attendance at a for-profit college and their intent to continue their enrollment and graduate. The research questions are as follows:

Question 1: What are the intercorrelations among the gap scores for the five SERVQUAL scales?

Question 2: What is the relationship between the gap scores and student intent to re-enroll, for each of the five SERVQUAL scales?

- Question 3: What is the relationship between the gap scores and student intent to persist/re-enroll, over and above the unique contributions of the demographic variables, for each of the five SERVQUAL scales?
- Question 4: What is the relationship between the gap scores and student intent to graduate for each of the five SERVQUAL scales?
- Question 5: What is the relationship between the gap scores and student intent to graduate, over and above the unique contributions of the demographic variables, for each of the five SERVQUAL scales?

Survey Overview and Response Rate

A link to the survey instrument was e-mailed to all undergraduate students enrolled at Mile High University at the time the study was conducted (See Appendix B for the survey). A total of four emails were sent over a one-month period inviting student participation. Of the 1700 students, 327 submitted either a fully or partially completed survey for a 19% response rate.

Questionnaire

While the questionnaire encompassed several parts, for the purposes of this research the section related to individual expectations and perceptions was the primary focus of analysis. This section contained 27 questions related to service quality reflective of the five SERVQUAL dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Students were asked their expectations and perceptions for each question (see Appendix C-Frequency Distribution of Expectations and Perceptions). Following the SERVQUAL items, students were asked to allocate 100 points across the five dimensions (tangibles, reliability, responsiveness, assurance, and empathy). These points were to be

distributed based on how important the student considered each service quality dimension. However upon review of the data many students did not respond to this question or their ratings did not total to 100 points. As such, there was serious concern of the usefulness of the weights and were not retained for further analysis for this study.

Dimension Definitions

The following is a review of the definitions for each of the dimensions; tangibles are the physical appearance of the brochures, website, and educational materials. Reliability focuses on the institutional offices' and departments' performance of accurate and dependable services. Whereas, the dimension related to responsiveness looks at the willingness to help students and provide prompt service. Assurance is the institution's ability to inspire students' trust and confidence by demonstrating knowledge and courtesy. Empathy considers the environment demonstrating care and shows empathy to students as reflected by policies and procedures.

Incomplete Data

Of the 327 respondents, 225 (68.81%) responded to each question. The incomplete data from 102 students may be the result of several factors such as: the participants chose not to answer the question; s/he skipped the question accidentally, or a data entry error with survey tool Qualtrics. Further examination of the 102 questionnaires is recommended and will be discussed later in this chapter to understand better if these incomplete surveys can be used in this research (Field, 2009; Sterner, 2011).

Demographics

The survey included several questions for obtaining demographic information about the survey participants including age, gender, ethnicity, and enrollment status. As shown in Table 3, female students provided a slight majority of responses (57.8%). The two dominant ethnicities represented were African American students (27.2%) and white students (34.6%). Of the 284 students who responded to the question related to age, non-traditional students, defined as those 25 or over, were the majority of participants (78.3%). Student's enrollment status of those who responded to the question reflected 29.7% were part-time students and full-time students represented 56.9%.

In comparison to actual attendance at Mile High University, the sample characteristics are relatively reflected in the following manner. The gender and age are similar to the percentage of students in attendance at Mile High University. However, Mile High University currently enrolls more African American students (52%) than white students (48%). More white students (34.6%) submitted surveys than African American (27.2%). The most significant difference is the comparison of enrollment status. The percentage of students who actually attend Mile High University as part-time (64.2%) as oppose to full-time (37.5%). Yet 56.9% of the submitted surveys were returned from full-time students. Nevertheless, the sample is considered rather representative of the population in attendance at Mile High University with respect to these characteristics.

Table 3

Self-identified Sample Characteristics of the Survey Respondents

Variable	Gender		Ethnicity		Age		Enrollment	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Gender								
Male	82	28.1						
Female	189	57.8						
Ethnicity								
African American			89	27.2				
Asian American			3	0.9				
Hispanic/Latino			36	11				
Native American			2	0.6				
White			113	34.6				
Other			15	4.6				
Multiethnic			20	6.1				
Age								
Under 24					28	8.6		
25 to 35					78	23.9		
36 to 45					68	20.8		
46 or older					110	33.6		
Classification								
Part-time							97	29.7
Full-time							186	56.9

Missing Data

Missing data is a predictable outcome of survey research yet can be problematic for data analysis (Croninger & Douglas, 2005). It is reasonable that not every respondent will complete each question; therefore, examining missing data is one of the first steps of analysis. This examination is essential as incomplete data can have implications for internal and external validity (Sterner, 2011).

Screen for Missing Data

To screen for missing data Little (1998) created the Little's Missing Completely at Random test. This test uses Chi-Square to compare the observed mean with the expectation maximization (EM) imputed mean (Howell, 2007). The null hypothesis for Little's test is that the data are missing completely at random (Meyers, Gamst, & Guarino, 2006). There are three classifications or descriptions of missing data, missing completely at random (MCAR), missing at random (MAR), and missing not at random (MNAR). Developing a better understanding of the probable source of the missing data will indicate available remediation to incorporate to reduce the risk of validity issues during data analysis (Sterner, 2011).

To analyze the dataset, the file was separated into two files. One dataset contained all SERVQUAL responses to questions related to expectations. This analysis revealed a Chi-Square= 823.755, $df = 763$, $sig. = .063$. The alpha level is greater than .05 suggesting that expectations data is likely to be missing completely at random (Meyers, Gamst, & Guarino, 2006). This suggests the probability of missingness is independent of any other variable in the data subject to analysis. In other words, responses to the

SERVQUAL questions related to expectations are missing in the data in a manner that was randomly distributed across all observations.

The second dataset included all responses to SERVQUAL questions related to individual perceptions. The analysis of the data computed a Chi-Square= 929.312, df = 849, sig.= .028. The alpha level of .028 is statistically significant as it is below .05, suggesting the missing data are either at random or not at random. The Little's Missing Completely at Random test is unable to indicate if the missing data are at random or if an identifiable pattern exists based on a significant p-value (Croninger & Douglas, 2005; Sterner, 2011). While the results are unclear as to the exact type of missing data related to perceptions data, scholars suggest that many of the approaches for handling missing data will produce similar results (Croninger & Douglas, 2005).

Resolve Missing Data

There are general approaches that can be considered to resolve missing data. These include traditional methods such as listwise deletion, mean substitution or regression based-single imputation (Acock, 2005; Croninger & Douglas, 2005; Sterner, 2011). An alternative or emerging method is multiple imputations (Croninger & Douglas, 2005). Each of these methods provides some level of remedy for missing values yet they can also raise new issues within the dataset. These concerns can include creating a false sense of statistical power, reduction of sample size, creation of a false negative relation, or biased estimates (Acock, 2005; Croninger & Douglas, 2005). Not every method is the best option based on the classification of the missing data, but it can be assumed that at a minimum the data are missing at random (Croninger & Douglas, 2005). As a researcher, beyond the Little's MCAR test, assumptions must be drawn to determine the possible

source of missing data in selecting the appropriate approach to review and reconcile deficient data in this study. The following two methods were selected for comparison: listwise deletion and multiple imputation, as these tend to be perceived as stable methods (Allison, 1999; Rubin, 2004).

Listwise deletion (LD). The data file was first analyzed using listwise deletion, the simplest and the most widely used approach for resolving incomplete data. Listwise deletion assesses each case and if any variable is missing data the case is omitted from the analysis (Field, 2009). This approach reduces the sample size but is a useable remedy for data that are missing completely at random as well as datasets where the source of the missing data is more uncertain (Allison, 1999).

Multiple imputation (MI). The second method applied working with the missing data was the multiple imputation approach. Multiple imputations process the data creating five unique datasets with an insertion of imputed values for the missing data. Analyzing the observed relationships among the variables generates the imputed values, which creates predicted values (Field, 2009). The predicted values are not a process of guesswork; rather the pooled dataset maintains the variability as well as preserves the relationships among the variables (Wayman, 2003).

Both of these methods were implemented to determine whether one provided a more useable data set for analysis than the other. Using multiple imputed values did not change the conclusions when comparing listwise deletion data and multiple imputed data in the linear regression model. Listwise deletion is a robust method for logistic regression analysis and can be particularly beneficial over and above the sophisticated approach of multiple imputations with regards to missing at random data (Allison, 2002).

Reliability

Reliability considers the internal-consistency, which is the degree to which the SERVQUAL expectations, perceptions, and gap scores are measuring the same underlying characteristics (Pallant, 2007). The most common statistic to measure internal consistency is Cronbach's coefficient alpha (Field, 2009; Pallant, 2007). Tables 4 and 5 provide the mean, standard deviation and the alpha score for the expectation and perception SERVQUAL scales for each of the five dimensions: tangibles, reliability, responsiveness, assurance, and empathy.

Table 4

SERVQUAL Expectation Responses

Dimension	<i>N</i>	<i>M</i>	<i>SD</i>	Cronbach's Alpha
Tangibles	260	67.00	10.76	.96
Reliability	260	41.58	7.93	.96
Responsiveness	257	26.69	5.58	.95
Assurance	264	12.34	2.09	.80
Empathy	258	12.12	2.26	.95

Table 5

SERVQUAL Perception Responses

Dimension	<i>N</i>	<i>M</i>	<i>SD</i>	Cronbach's Alpha
Tangibles	261	67.99	11.03	.95
Reliability	267	42.18	7.99	.94
Responsiveness	264	30.05	5.96	.93
Assurance	268	12.44	2.12	.60
Empathy	264	11.95	2.58	.89

With the exception of one, the Cronbach alphas for each dimension are above .80. This indicates there is acceptably high internal consistency. Scholars suggest that the Cronbach alpha above .7 is considered acceptable at the early stages of construct validation and above .8 is preferred (Nunnally & Bernstein, 1994). The one dimension of concern is Assurance as it relates to the perception scale. The Cronbach alpha value is .60 and is not at the satisfactory level, raising the question as to whether to retain this dimension for statistical analysis. When the Cronbach alpha is not at an acceptable level item deletion is an option to strengthen the measurement tool (Field, 2009). However, this dimension contains only two questions so item deletion is not a possibility, as this would have the effect of deleting the dimension.

Finally, it is essential to examine the internal consistency for the gap score for each dimension. Gap scores were computed by subtracting perception score minus expectation score in each student response. These scores were totaled and divided by the number of questions designated for each dimension to create the institution's gap score in each of the SERVQUAL dimensions. The gap score is very important as this is used for the statistical analysis for this study. To estimate internal consistency of the gap score, the reliability of difference equation was used to reduce the risk of overestimation of reliability (Allen & Yen, 1979). The difference score is less reliable than either of its constituents parts. Further, this reduces the risk of underestimating the measurement error associated with difference scores.

$$\rho_{DD'} = \frac{\rho_{xx'}\sigma_x^2 + \rho_{yy'}\sigma_y^2 - 2\rho_{xy}\sigma_x\sigma_y}{\sigma_x^2 + \sigma_y^2 - 2\rho_{xy}\sigma_x\sigma_y}$$

In doing so, each of the gap alphas were calculated as shown in Table 6, resulting in very good internal consistency for four of the dimensions, tangibles (.902), reliability (.961), responsiveness (.885) and empathy (.885). The assurance dimension did not have what is considered an acceptable alpha score (.437). This was a likely outcome as the Cronbach alpha score for assurance on the perception scale was also below what is considered the minimally acceptable level. Further, there are only two questions related to this assurance dimension so there is greater likelihood that the Cronbach alpha may be inaccurate. To resolve this concern, this dimension will not be included in the study.

Table 6

SERVQUAL Gap Total Descriptive

Dimension	<i>N</i>	<i>M</i>	<i>SD</i>	Cronbach's Alpha
Tangibles	255	1.13	10.21	.90
Reliability	258	0.66	8.59	.96
Responsiveness	254	0.32	6.07	.86
Assurance	262	0.10	2.18	.44
Empathy	256	-0.17	2.81	.87

Correlation Matrix

The correlation matrix is helpful to understand the relationship shared between the variables. This matrix contains the gap score (perception – expectation) for each of the SERVQUAL dimension (as shown in Table 7). There are positive correlations between each of the variables, ranging from .742 to .901. The closer the Pearson’s *r* is to +1 or -1 the stronger the association (Field, 2009). Based on this assessment the correlations between each of the SERVQUAL dimensions are very strong. Further, these

values are also statistically significant which suggest this relationship is not due to chance.

Table 7

Correlation Matrix of Independent Variables

		Tangibles Gap	Reliability Gap	Responsive Gap	Empathy Gap
Tangibles Gap	Pearson Correlation	1	.864**	.847**	.742**
	Sig (2-tailed)		0.000	0.000	0.000
	N	255	242	238	239
Reliability Gap	Pearson Correlation		1	.901**	.772**
	Sig (2-tailed)			0.000	0.000
	N		258	245	246
Responsive Gap	Pearson Correlation			1	.835**
	Sig (2-tailed)				0.000
	N			254	246
Empathy Gap	Pearson Correlation				1
	Sig (2-tailed)				
	N				256

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

Linear Regression

This linear regression model includes four predictor/independent variables. These are the gap score (perception minus expectation) for each of the SERVQUAL dimensions (tangibles, reliability, responsiveness, and empathy). The two dependent variables are the intent to continue enrollment and the intent to graduate. The reason for conducting a regression analysis of the survey results was to generalize the sample model of Mile High

University to the entire population of for-profit colleges and universities. By doing so, data could be used for prediction and explanation if the necessary assumptions were met. If these assumptions are violated the findings may not be generalized to the entire population and would only reflect the sample audience (Field, 2009). There are five primary assumptions that should be met to justify the use of linear regression for prediction and generalizability. Each of these assumptions was analyzed with the listwise deletion data.

Assumption 1: Linearity

The first assumption is to determine if there is a linear relationship between the dependent and independent variables. A linear relationship occurs when the dependent variable maintains a linear relationship to the independent or predictor variable (Osborne & Waters, 2002). The two dependent variables under review include students' intention to enroll in the coursework the following semester at Mile High University and intention to complete a degree at Mile High University. These dependent variables were placed separately on a scatterplot against the independent variables. The independent variables are the gap scores (perception minus expectation) for each the SERVQUAL dimensions (tangibles, reliability, responsiveness, and empathy). Upon visual inspection of each scatterplot for the dependent variables (intent to continue enrollment and intent to graduate) it appears that a linear relationship does not exist as the data points do not follow the regression lines (Appendix D).

Assumption 2: Independence of Observations

There should be independence of observations where each observation of a variable is independent of one another (Lomax & Hahs-Vaughn, 2012). By conducting

this assessment, the researcher could determine whether there were any common influences that would affect the outcome. The Durbin-Watson test looks at the residual values to inspect for correlation from one observation to the next to determine independence of observations (Field, 2013). The Durbin-Watson value using the listwise deletion dataset for the dependent variable intent to continue enrollment was 2.058 and for intent to graduate was 1.845. According to the rule of thumb, both of these outcomes indicate that the residuals, or the deviations of observed values from the predicted values (Field, 2013), are uncorrelated as the Durbin-Watson statistic is approximately 2. In other words, SERVQUAL dimensions appear to be independent of one another.

Assumption 3: Homoscedasticity

The data should show homogeneity of variance or homoscedasticity (Lomax & Hahs-Vaughn, 2012). This assumption examines the independent and the dependent variables and inspects to determine if the relationship that exists between SERVQUAL dimensions and the behavioral intent variables is the same for the entire range of independent variables. This entails examining the scatterplot to determine if the scatter of points around the regression line is the same for all values of X. Plotting the residuals (SERVQUAL gap score) against the predicted values of the dependent variable (intent to continue and intent to graduate) and examine the scatterplots. As a result, the scatterplot of the dependent variables (student's intention in enrolling in courses next semester and intention of completing a degree) are indicating a problem (Appendix E). There is a negative relationship between the predictor variable and the residual, where the prediction is underestimating the intent to graduate and continuing enrollment.

Assumption 4: Normality

Normality is based on the assumption that the distributions of the variables are normal (Osborne & Waters, 2002). A normal distribution is one in which the variables are neither highly skewed (kurtotic) nor include a substantial number of outliers (Lomax & Hahs-Vaughn, 2012; Osborne & Waters, 2002). There are several methods to detect violations of this assumption, including visual inspection of data plots and the skewness statistic (Lomax & Hahs-Vaughn, 2012). Following an examination of the histogram appear to be highly skewed (Appendix F). Ideally the data should follow a symmetric bell-shaped curve. However, these data have a significant spike creating a positive skew. This indicates a lack of symmetry where most of the data falls right of the median suggesting that students responses to intent to graduate and intent to continue is highly likely.

Assumption 5: Multicollinearity

Multicollinearity occurs when several of the independent variables are correlated. The independent variables or predictor variables under examination are the gap scores for each of the SERVQUAL dimensions (tangibles, reliability responsiveness and empathy). When several predictors are correlated with one another, this can lead to statistical issues in the findings where the standard error of coefficients may be overinflated (Lomax & Hahs-Vaughn, 2012). As a result, these predictors may be found to be statically insignificant when that is not the case, and incorrect conclusions may be drawn. Reviewing the correlation matrix, it was clear there are high correlations among the independent variables (SERVQUAL dimensions) suggesting a concern about collinearity being a possible issue.

One method to check for multicollinearity is to inspect the variance inflation factor (VIF). The VIF represents the percentage of variance in the predictor that cannot be accounted for by another predictor (Ho, 2006). A general signal that multicollinearity exists is if the VIF is above 10 (Field, 2009). This data in this study indicate that multicollinearity should not be a concern as each independent variable (SERVQUAL Dimensions) in both models (intent to continue enrollment and intent to graduate) is below 10. This implies that the SERVQUAL dimensions are not highly correlated with one another in a manner in which where they are providing redundant or duplication of information.

Based on a review of these assumptions several have been violated, linearity, homoscedasticity, and normality, this can lead to misinterpretation of the data that can result in distorted conclusions. As a result, using the linear regression model is not a workable option for this research. Since this is not workable statistical method another option must be considered, Binary Logistic Regression.

Binary Logistic Regression

As the assumptions were not met to conduct a linear regression analysis, logistic regression may prove to be a viable alternative. Logistical regression was a possible option as it does not depend on linear relationship between the outcome variable and predictor variable, further the data does not need to be normally distributed or have equal variance within each group. These were issues in the attempt to conduct a linear regression. Nevertheless like linear regression, logistic regression uses the data to describe and explain the relationship between the outcome of interest such as, in the instance, the intent to re-enroll and the intent to graduate and the predictor variables.

These predictor variables are the gap score (perception minus expectation) for each of the four SERVQUAL dimensions (tangibles, reliability, responsiveness, and empathy).

The design of the survey questions used a Likert scale, which made linear regression appear to be a natural fit since that model supports continuous dependent variables. However, values that are continuous can be grouped to become categorical. To move forward with this logistic regression, each dependent variable was recoded into a dichotomously scored variable based on an inspection of the frequency distribution.

Categorizing Dependent Variables

To utilize the logistic regression model, the outcome variable must be categorical. This transformation should not be arbitrary and should show sensitivity to the data so important distinctions are not purged (Field, 2009). The two questions under examination include “Is it your intention to enroll in courses at Mile High University in the following semester?” and “Do you intend to complete your degree at Mile High University?” The Likert scale consists of (1- *Very Unlikely*; 4- *Undecided*; 7- *Very Likely*) to generate students’ responses to both of these questions. The frequency distribution is displayed in Table 8 for each of the outcome variables. Of the 269 students who responded to the intent to graduate question, 221 (82.2%) answered “*likely*” or “*very likely*.” Similar results were found for the intent to continue enrollment question. Of the 272 students who responded to the intent to continue their enrollment, 221 (82.7%) answered “*likely*” or “*very likely*”.

Table 8

Frequency for Intention to Graduate and Continue Enrollment

Response	<u>Intention to Graduate</u>		<u>Continue Enrollment</u>	
	Frequency	%	Frequency	%
Very Unlikely	13	4.0	12	3.7
Unlikely	8	2.4	6	1.8
Somewhat unlikely	1	0.3	4	1.2
Undecided	15	4.6	16	4.9
Somewhat likely	11	3.4	9	2.8
Likely	27	8.3	38	11.6
Very Likely	194	59.3	187	57.2
Total	269	82.3	272	83.2

To transform the continuous variable to categorical, the dependent variable was dichotomized to allow binominal regression. Based on the frequencies where the majority of responses were either “*likely*” or “*very likely*” intent to continue enrollment and graduate these two responses (*likely* and *very likely*) were combined into one category that was internally coded 1. The remaining responses, “*very unlikely*”, “*unlikely*”, “*somewhat unlikely*”, “*undecided*” and “*somewhat likely*” were pooled into the second category that was internally coded 0.

Assumptions

Once the dependent variables are categorized, there are certain conditions that must be met to proceed with logistic regression. The first one is noncollinearity. The details of this assumption are the same of those discussed earlier in the discussion of linear regression; accordingly the statistical analysis outlined above is also usable for conducting a logistic regression. The variance of inflation factor indicated that the

SERVQUAL gap scores for each dimension have not violated noncollinearity as the VIF is below 10 (Lomax & Hahs-Vaughn, 2012).

The second assumption considers linearity of the logit. Unlike in the linear regression model where a linear relationship is expected between dependent and independent variables, logistic regression considers linearity as it applies to logit (log odds) and the independent variables (Field, 2009). To be able to test this assumption, it was necessary to take each continuous independent variable (SERVQUAL dimensions) and transform them into their natural logarithms. Logistical regression was used to test the interaction between the independent variable and the newly created logit variable for statistical significance. For example, the dimension tangible was tested between the tangibles variable and log tangibles. This process was conducted for each of the remaining dimensions, reliability, responsiveness, and empathy. Each dimensions interaction has a significance value above .05 indicating the assumption of linearity has been met (Field, 2009).

The third assumption is independence of errors. This condition was also analyzed during the earlier review of assumptions for linear regression. The outcome concluded that the variables' residuals are uncorrelated which implies that predictor variables (SERVQUAL dimensions) are independent of one another.

Analysis

Satisfying the assumptions for logistic regression supports continuing with the data analysis. This model includes two dichotomous variables for examination in separate regressions. The datasets comprised in each model are identified in Table 9.

Table 9

Dependent and Independent Variables and Definitions

Variable	Label	Definition
1- Outcome Variable: Do you intend to complete your degree at Mile High University	Graduate	<i>Unlikely:</i> very unlikely, unlikely, somewhat unlikely, undecided and somewhat likely; <i>Likely:</i> very likely and likely
2- Outcome Variable: Is it your intention to enroll in courses at Mile High University in the following semester	Enroll	<i>Unlikely:</i> very unlikely, unlikely, somewhat unlikely, undecided and somewhat likely; <i>Likely:</i> very likely and likely
Predictor Variable	Tangible	Physical appearance of the brochures, website and educational materials
Predictor Variable	Reliability	Institutional offices' and departments' performance of accurate and dependable services
Predictor Variable	Responsiveness	A willingness to help students and provide prompt service
Predictor Variable	Empathy	An institutional environment that cares and shows empathy to students as demonstrated by policies and procedures that reflect individualized attention

To enhance the understanding of the predictor variables Table 10 outlines the descriptive statistics of each of the dimensions. The independent variables used for each of these models are the gap scores for the four SERVQUAL dimensions. Gap scores are computed by subtracting the perception score from the expectations score, total and divided by the number of questions for each dimension.

Table 10

Independent Variable Central Tendency

	N	Range	Min	Max	Median	Mean	Std. Deviation
Tangibles Gap	255	109.00	-43.00	66.00	0.00	1.13	10.21
Reliability Gap	258	84.00	-42.00	42.00	0.00	0.66	8.59
Responsiveness Gap	254	60.00	-30.00	30.00	0.00	0.32	6.07
Empathy Gap	256	24.00	-12.00	12.00	0.00	-0.17	2.81

Figure 15, 16, 17, and 18 are the histograms for the gap score of each SERVQUAL dimension. The frequencies for each dimension indicate that there is positive gap score with the median creating a zero gap score. A zero gap score implies that overall students indicated a similar perception rating as their expectation rating.

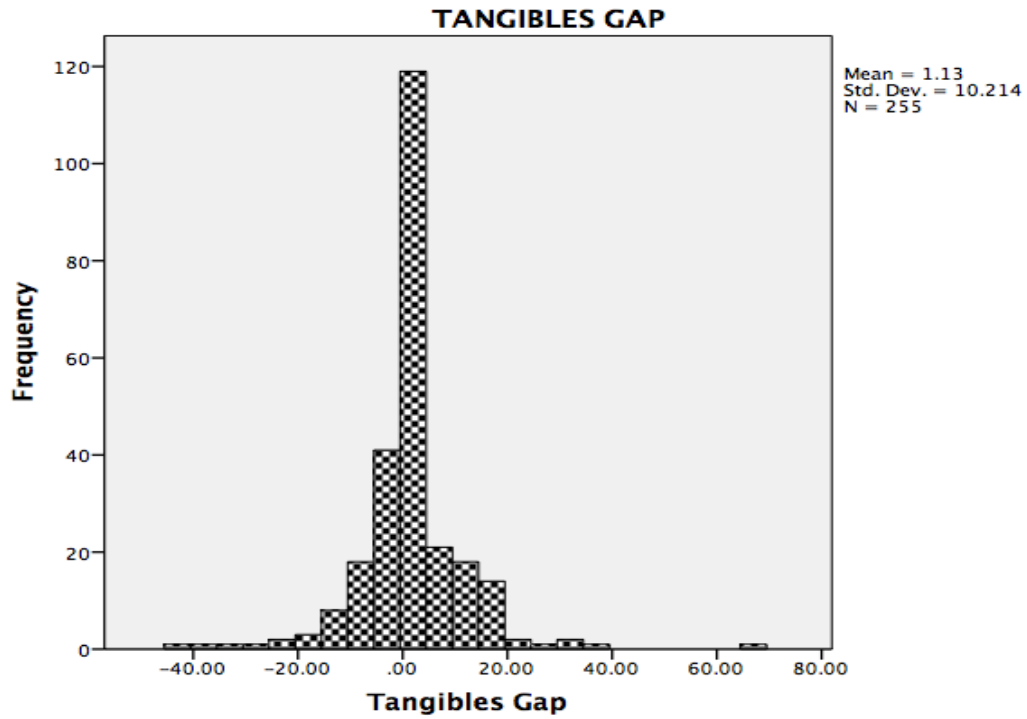


Figure 15. Histogram of frequencies of tangible gap score. This gap score is the reflection of the physical appearance of the brochures, website and educational materials. The median gap is zero indicating that perceptions equaled the expectations.

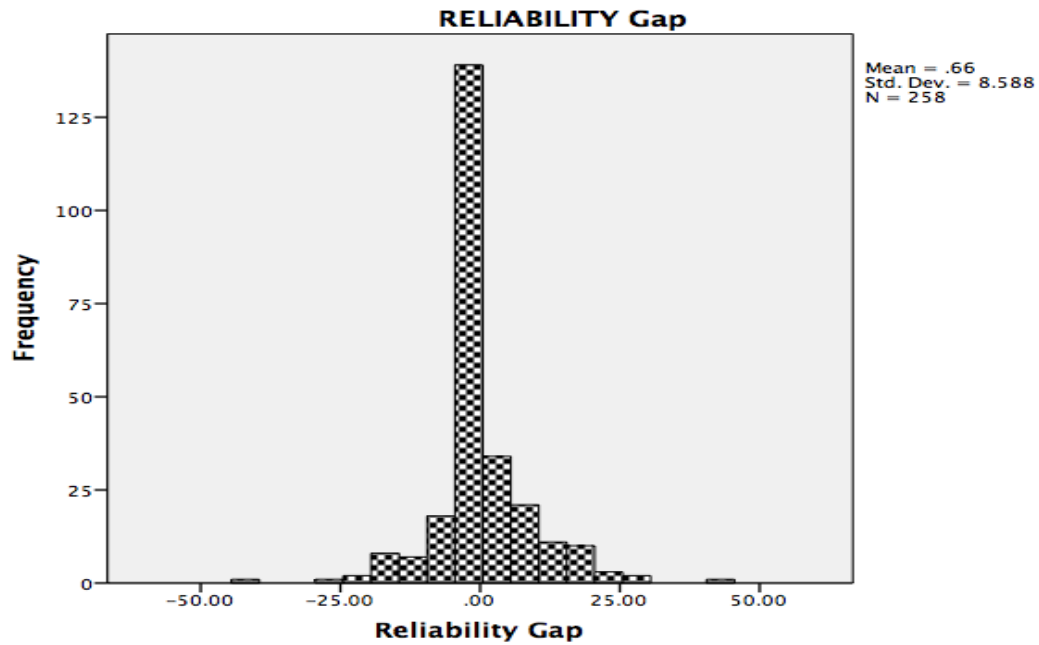


Figure 16. Histogram of frequencies of reliability gap score. This gap score is the reflection of institutional offices' performance of accurate and dependable services. The median gap is zero indicating that perceptions equal expectations.

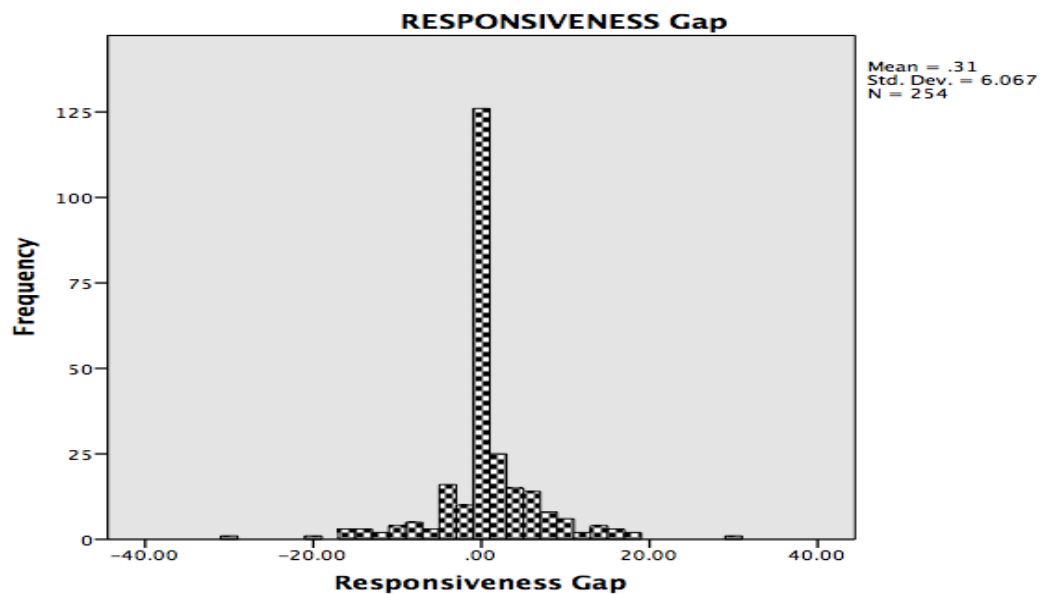


Figure 17. Histogram of frequencies of responsiveness gap score. This gap score is the reflection of the willingness to help students and provide prompt service. The median gap is zero indicating that perceptions equal expectations.

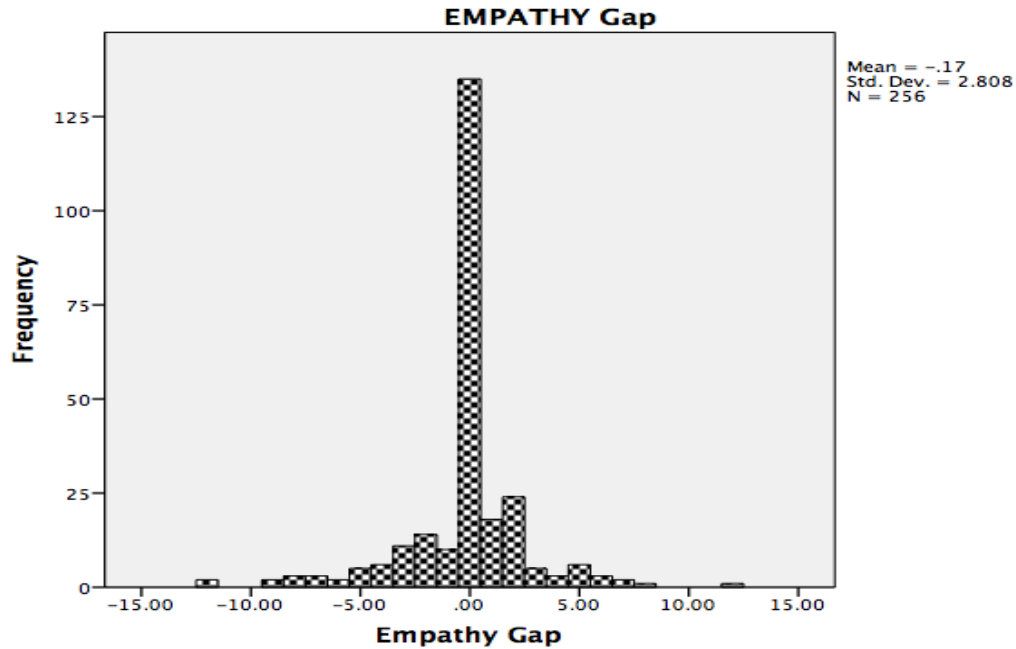


Figure 18. Histogram of frequencies of empathy gap score. This gap score is the reflection of the institutional environment that cares and shows empathy to students as demonstrated by policies and procedures. The median gap is zero indicating that perceptions equal expectations.

There are two regression models; one is intent to continue enrollment and the second one is intent to graduate. Each of these models outcomes will be discussed simultaneously. The first regression model included 223 completed surveys using the outcome variable of students' intent to enroll the following semester. The second regression model included 222 completed surveys using the outcome variable of students' intent to graduate. The initial stage of analysis examined the full model against a constant-only model that includes only the outcome variables; intent to continue and intent to graduate. In doing so, the predictor variables (SERVQUAL dimensions) were omitted for each model. SPSS assigns every participant to a single category of the outcome variable, which is selected based on the highest frequency (Field, 2009).

In the model associated with intent to continue, the outcome variable contained 185 students who responded “very likely” or “likely” to continue enrollment the following semester, and 38 who selected very unlikely or undecided about continuing their enrollment. As a result, running this test with only the outcome variable the model correctly classified 83% of students. Further the residual chi-square statistic is 36.60, and is significant at $p < .05$. In other words, the predictive power improves with the inclusion of one or more of the five SERVQUAL dimensions as compared to the constant only model (Field, 2009; Lomax & Hahs-Vaughn, 2012).

Similarly the model containing the outcome variable a student’s intent to graduate from Mile High University includes 184 students “*very likely*” or “*likely*” to pursue graduation, and 38 are “*very unlikely*” or “*undecided*” about intention to graduate. This model correctly classifies 82.9% of students related to their intention to graduate when considering just the outcome variable. Additionally the residual chi-square statistic is 35.235, $df = 5$ and $Sig = .000$. The chi-square is statistically significant like the previous conclusion for intent to continue regression model; this suggests the addition of one or more of the SERVQUAL dimensions improves prediction intent to graduate.

The next consideration was to examine overall model fit to determine the degree to which the predicted values accurately represented observed values (Lomax & Hahs-Vaughn, 2012). The Hosmer-Lemeshow goodness-of-fit test is a tool that can identify overall model fit (Field, 2009). Table 11 indicates the SPSS results for each of the regression models and identifies a statistically non-significant chi-square. These non-statistically significant values indicate each model has an acceptable fit (Lomax & Hahs-Vaughn, 2012). This test concludes that the predicted model is not statistically

significantly different than the observed model and from this the researcher inferred the model adequately fits the data.

Table 11

Hosmer and Lemeshow Test for Each Dependent Variable

Variable	Chi-Square	df	Sig.
Intent to continue enrollment	3.132	7	0.873
Intent to graduate	10.734	7	0.151

Note. Significant at the $p < 0.05$ level.

To better understand how much variance is explained by each of these models, the Nagelkerke R Square statistic was utilized. This value provides a gauge, or what some scholars refer to as a pseudovariance (Field, 2009; Lomax & Hahs-Vaughn, 2012). While this value can provide effect size, it is not calculated in the same manner as a continuous variable that can be found in linear regression and as such merely mimics R^2 (Lomax & Hahs-Vaughn, 2012). However, using Nagelkerke R Square as a guide the value for intent to continue enrollment (.301) indicates that there is a 30% relationship between the predictors and predictions. In other words, the SERVQUAL dimensions can account for approximately 30% of the variability of students' intent to continue to enroll. The Nagelkerke R Square value for intent to graduate model is .286, suggesting that 29% of the variance in intent to graduate was accounted for by some linear combination of the SERVQUAL dimension gap scores. Again, this Nagelkerke R Square provides only a

sense of a relationship between the predictors and predictions, this statistic more or less is used to support model fit.

The classification table (Table 12) indicates how well the model predicts group membership. When the model only includes the constant meaning the behavioral intent variables, the model correctly classified 83.0% of students' intent to continue enrollment, but with the inclusion of the SERVQUAL dimensions, the predicted capacity improved to 85.7%. Likewise, when examining the intent to graduate model, including only the constant, it correctly classified 82.9%. Adding the five SERVQUAL dimensions the percentage rose to 85.6%. In both models, the addition of predictor variables improved the prediction, supporting these models for continuing analysis. However, it should be noted the improvement with the inclusion of the SERVQUAL dimensions is not very substantial and likely this could be the case because of the skewness that is found in the data for both dependent variables.

Table 12

Classification Table of Outcome Variables

	Predicted				Predicted		
	Intent to Enroll		Percentage Correct		Intent to Graduate		Percentage Correct
Unlikely	10	28	26.3	Unlikely	10	28	26.3
Likely	4	181	97.8	Likely	4	180	87.8
Overall percentage			85.7	Overall percentage			85.6

The last stage of the analysis was to review the variables in the equation to determine which, if any, of the independent variables (SERVQUAL dimensions), are statistically significant and whether they offer predictive capability of the behavioral intent variables (as shown in Table 12 and 13). Reviewing each variable, only one SERVQUAL dimension is statistically significant, reliability as indicated by the p-value value. Looking at the reliability dimension for the intent to continue enrollment model the p-value is .031 and the intent to graduate regression model the significance value of .052 and is slightly above the cutoff of p-value value of .05. Nevertheless, this alpha value is considered borderline and was included as a predictor. Based on the reliability dimension providing predictive capability this suggests students are more likely to continue their intention of enrollment as well as their intention to graduate based on their perception of the institution providing accurate and dependable service. As the gap score increases by one unit, the odds for intent to continue enrollment are 1.16 or a .16 increase. Further, as the gap score increases by one unit, the odds for intent to graduate are 1.14 or a .14 increase. The following table presents the results for each model, intent to continue enrollment (Table 13) and intent to graduate (Table 14) including the regression coefficients, Wald statistics, odds ratios, and 95% CIs for the odds ratios.

Table 13

Variables in the Equation for Students Intent to Continue Enrollment

Variables	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for <u>EXP(B)</u>	
							Lower	Upper
TanGap	0.076	0.046	2.764	1	0.096	1.79	0.987	1.180
RelGap	0.151	0.07	4.661	1	0.031	1.169	1.014	1.335
ResGap		0.096	0.170	1	0.680	0.961	0.796	1.160
EmpGap	0.142	0.128	1.220	1	0.269	1.152	0.896	1.481
Constant	1.949	0.235	68.630	1	0.000	7.019		

Note: Significant at $p < 0.05$ level.

Table 14

Variables in the Equation for Intent of Graduate

Variables	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for <u>EXP(B)</u>	
							Lower	Upper
TanGap	0.07	0.048	2.109	1	0.146	1.072	0.976	1.178
RelGap	0.132	0.068	3.781	1	0.052	1.141	0.999	1.304
ResGap	-0.055	0.092	0.365	1	0.546	0.946	0.791	1.132
EmpGap	0.011	0.13	0.007	1	0.933	1.011	0.783	1.306
Constant	1.882	0.226	69.510	1	0.000	6.569		

Note: Significant at $p < 0.05$ level.

It is helpful to be aware of the predictability of the reliability dimension however, prediction alone does not fully provide all the necessary information to understand the relationship this dimension has to each of the behavioral variables. The gap total for each dimension is created from student responses based on their perception of each item followed by their expectation. As a reminder, these are rated on a Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The gap score is computed by subtracting the expectation score from the perception score. In doing so, the gap does not provide the detail needed to understand more fully how this relates to the individual perceptions and expectations.

The following bar graph (as shown in Figure 19) enhances the understanding of the perception and expectation score related to the reliability dimension. Students who are more likely to continue their enrollment have slightly stronger perceptions ($m= 6.24$) over and above their expectations ($m= 5.97$). Although it appears that all the respondents have similar expectations of the institution to provide accurate and dependable services (likely, $m=5.97$; unlikely, $m=5.97$). Students who are less likely to continue their enrollment, however, have lower perceptions that are not in keeping with their expectations ($m=5.11$). The descriptive information including mean, median and standard deviation is outlined in Table 15.

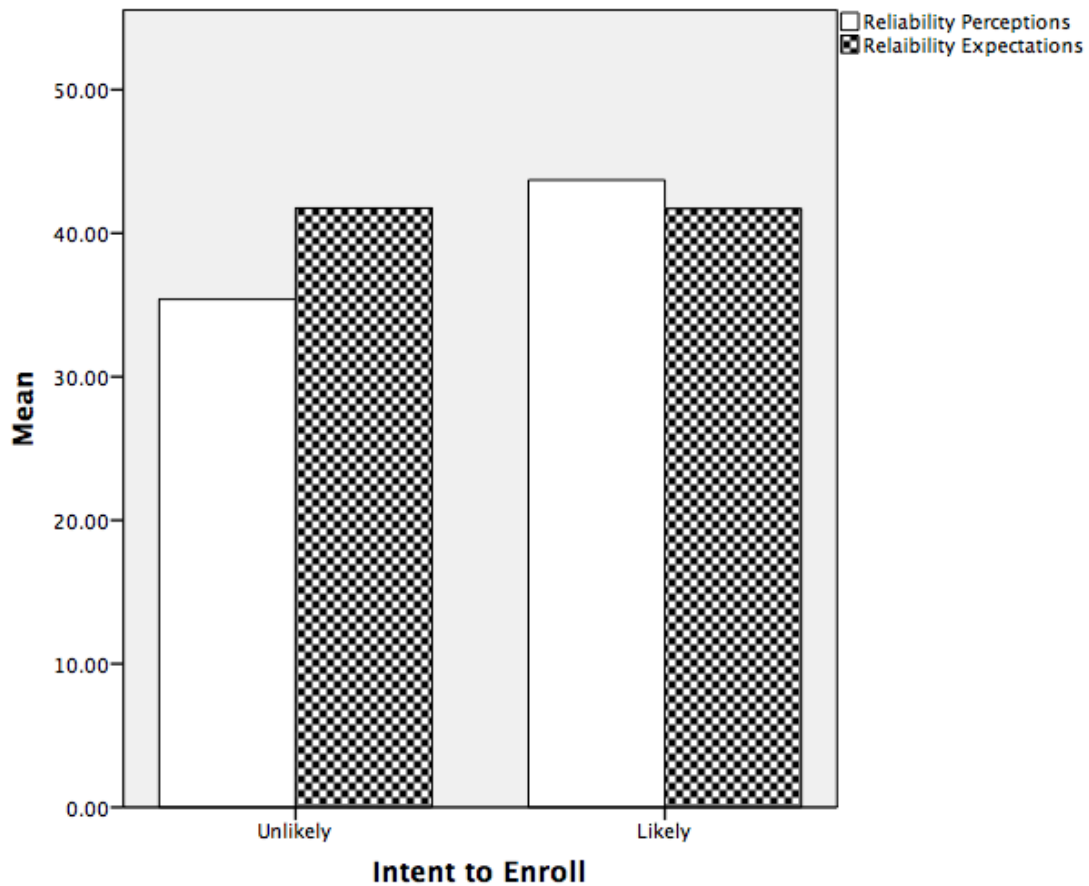


Figure 19. Bar graph of the reliability dimension in intent to enroll. This figure illustrates the mean score of expectation (pattern) and perception (white) for the reliability dimension and the association to the intent to continue enrollment.

Table 15

Intent to Continue Enrollment- Reliability Dimension Descriptive

		<u>Perception- Reliability</u>				
Intent to Enroll	N	Minimum	Maximum	Mean	Standard Deviation	Median
Unlikely	47	1	7	5.11	1.43	5.43
Likely	225	1	7	6.24	0.92	6.57
		<u>Expectation- Reliability</u>				
Intent to Enroll	N	Minimum	Maximum	Mean	Standard Deviation	Median
Unlikely	47	1	7	5.97	1.10	6.00
Likely	225	1	7	5.96	1.12	6.00

Similar findings were concluded when examining student intent to graduate.

Figure 20 illustrates the reliability dimension of student's expectations and perceptions arranged by students whose intent is to likely to graduate and students whose intent is unlikely to graduate. Again student's expectations are similar regardless of their intent to graduate (likely, $m=5.96$; unlikely, $m=5.91$). However, for those students who are less likely to graduate, their expectations ($m=5.91$) exceed their perceptions ($m=5.06$); whereas, the perception ($m=6.25$) of students who intend to graduate exceed their expectations ($m=5.96$) in relationship to the institution providing accurate and dependable services. The descriptive information including mean, median and standard deviation is outlined in Table 16.

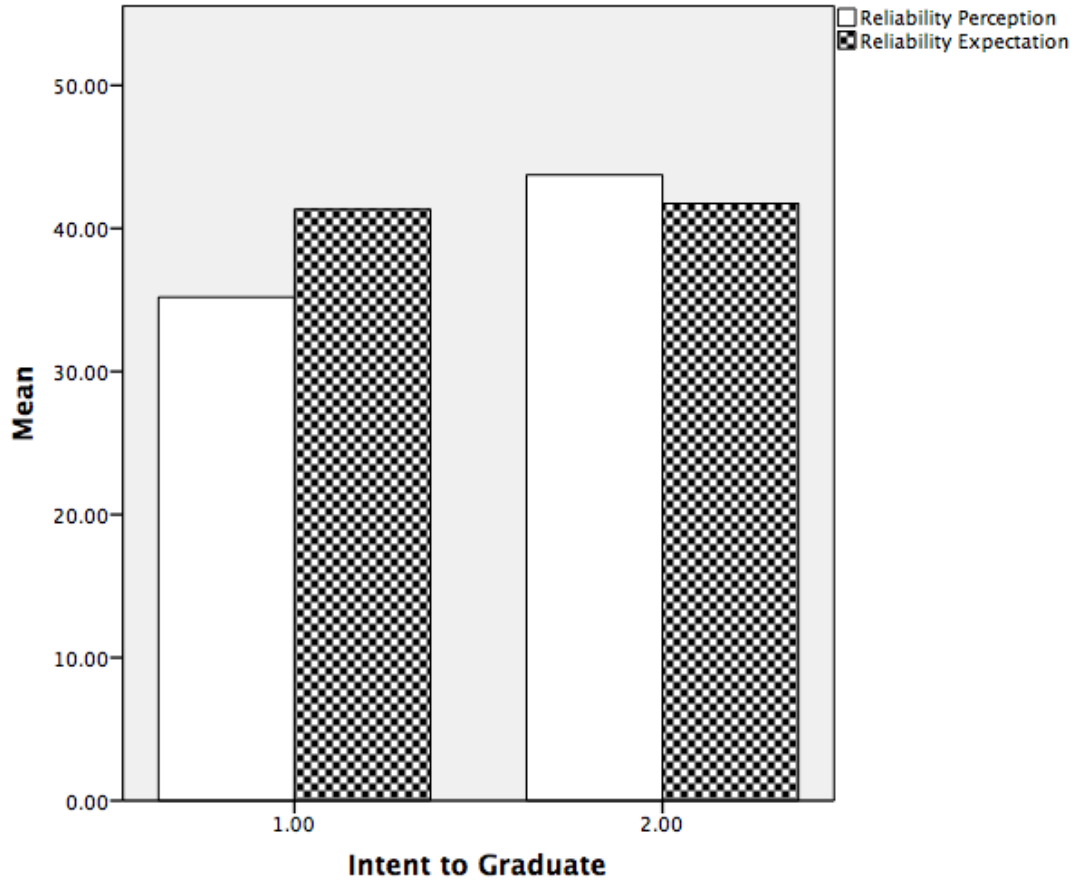


Figure 20. Bar graph of reliability dimension and intent to graduate. This figures illustrates the mean score expectation (pattern) and perception (white) for the reliability dimension and the association to the intent to graduate.

Table 16

Intent to Graduate- Reliability Dimension Descriptive

		<u>Perception- Reliability</u>				
Intent to Graduate	N	Minimum	Maximum	Mean	Standard Deviation	Median
Unlikely	48	1	7	5.06	1.49	5.43
Likely	221	1	7	6.25	0.89	6.50

		<u>Expectation- Reliability</u>				
Intent to Graduate	N	Minimum	Maximum	Mean	Standard Deviation	Median
Unlikely	48	1	7	5.91	1.11	6.00
Likely	221	1	7	5.96	1.12	6.00

The remaining SERVQUAL dimensions (tangibles, responsiveness, and empathy) are not statistically significant, nor are they predictive of student's intent to continue enrollment or graduate. The mean and standard deviation are provided for each of the remaining dimensions separated by perception and expectation are shown in Table 17. Upon review of the descriptive information, the dimension tangible and responsiveness, student's perceptions exceeded their expectations. Empathy was the one dimension where student's expectations exceeded their perceptions. Although this information may not be predictive it still can provide a contribution to understanding students intentions at Mile High University for more practical implications.

Table 17

SERVQUAL Perceptions and Expectations by Dimension: Means and Standard Deviation

Dimension	N	Minimum	Maximum	Mean	SD
Tangible Perceptions	261	1.00	7.00	6.18	1.00
Tangible Expectations	260	1.00	7.00	6.09	0.98
Responsive Perceptions	264	1.00	7.00	6.01	1.19
Responsive Expectations	257	1.00	7.00	5.94	1.11
Empathy Perceptions	264	1.00	7.00	5.98	1.29
Empathy Expectations	258	1.00	7.00	6.06	1.13

Additionally, separate from the item questions by dimensions students were also asked about to rate the overall degree of quality by dimension (as shown in Table 18). This section of the survey students rated service using the Likert scale of 1 (*poor*) to 7 (*excellent*). Reviewing these responses may assist in making more sense of student's perspective related to their satisfaction with the institutions services. Further using students overall ratings in coordination with their gap totals for dimensions can offer insight to the consistency of student satisfaction. Further comparison and discussion will be presented more fully in chapter 5.

Table 18

Overall Rating by Dimension

Question	N	Minimum	Maximum	M	SD
The overall appearance of MHU, technology, educational materials, curriculum, faculty, staff and supporting materials? (Tangibles)	275	1.00	7.00	6.01	1.30
The ability of MHU to perform the promised services dependably and accurately? (Reliability)	277	1.00	7.00	6.09	1.27
The willingness of MHU faculty and staff to help students and provide prompt service? (Responsiveness)	278	1.00	7.00	6.01	1.45
The knowledge and courtesy of MHU faculty and staff and their ability to convey trust and confidence? (Assurance)	277	1.00	7.00	6.09	1.32
The caring, individualized attention MHU provides to its students? (Empathy)	277	1.00	7.00	5.98	1.47
How do you rate the overall performance of MHU? (Overall)	272	1.00	7.00	6.21	1.21

Demographic Variables Examined

There are various demographic variables that could have been included in this research study. Per earlier discussion in Chapter 2, characteristics such as gender, age, enrollment status (part-time or full-time), and ethnicity (as shown in Table 19) are well studied in the literature in relationship to student persistence and graduation (Habley et al., 2012). In this study, a logistic regression model was developed to examine the relationship between SERVQUAL dimensions over and above the demographic characteristics as to the intent to continue enrollment and the intent to graduate.

Table 19

Demographic Predictor Variables

Variable	Label	Coding
Predictor Variable	Age	0= 24 and under 1= 25 and older
Predictor Variable	Enrollment Classification	0= Part-time student 1= Full-time student
Predictor Variable	Gender	0= Male 1= Female
Predictor Variable	Ethnicity	1= African American 2= Hispanic/Latino 3= White 4= Other 5= Multi-ethnic

The initial examination of this model included all demographic variables as well as the gap totals for each dimension. The statistical significance of the individual

demographic variables was suspect, as the model examined very small subgroups. The total number of respondents whose intent was unlikely to continue enrollment was 14.4% and whose intent was unlikely to graduate was 14.7%. As such, the number of students who say their intention was to not continue was too small to support multiple subgroups risking a type II error. A type II error is wrongly retaining a false null hypothesis. A type II error would occur if the researcher accepted that no relationship existed between the gap scores and student intent to continue/graduate, over and above the demographic variables, for each of the four SERVQUAL scales, but in fact a relationship did exist. Rather than pursuing a regression model, the demographic variables were analyzed using descriptive statistics (as shown in Table 20).

Table 20

Characteristics separated by Intent to Enroll or Graduate

Variable	Intent to Enroll		Intent to Graduate	
	Freq	%	Freq	%
Gender				
Male	70/86	81.4	70/85	82.3
Female	152/182	83.5	148/180	82.2
Ethnicity				
African American	75/86	87.2	72/84	85.7
Hispanic/ Latino	23/35	65.7	16/35	45.7
White	91/107	85.0	98/107	91.5
Other	16/19	84.2	14/18	77.7
Multiethnic	14/19	73.6	15/19	78.9
Age				
24 and under	15/27	55.5	13/27	48.1
25 and older	209/244	85.6	207/241	85.8
Classification				
Part-time Student	70/93	75.2	67/93	72.0
Full-time Student	153/177	86.4	152/174	87.4

Age

Many scholars categorize students into two groups when considering the effect age has in relationship to persistence and graduation. Traditional age is generally defined as 24 and younger and non-traditional is 25 and older (Deming et al., 2011; Tinto, 1993).

This study employs the same convention to categorize age to examine the descriptive

information. Of the total number of non-traditional students who participated in this survey, 85.6% had intention to continue their enrollment. Further, a slight majority of students who are traditional age (55.5% of traditional age respondents) also indicated their intention to continue enrollment (as shown in figure 21). Overall, less than 20% of respondents indicate their intent to not continue their enrollment. Of that, 29.2% are 24 or under and 70.8% are 25 or older.

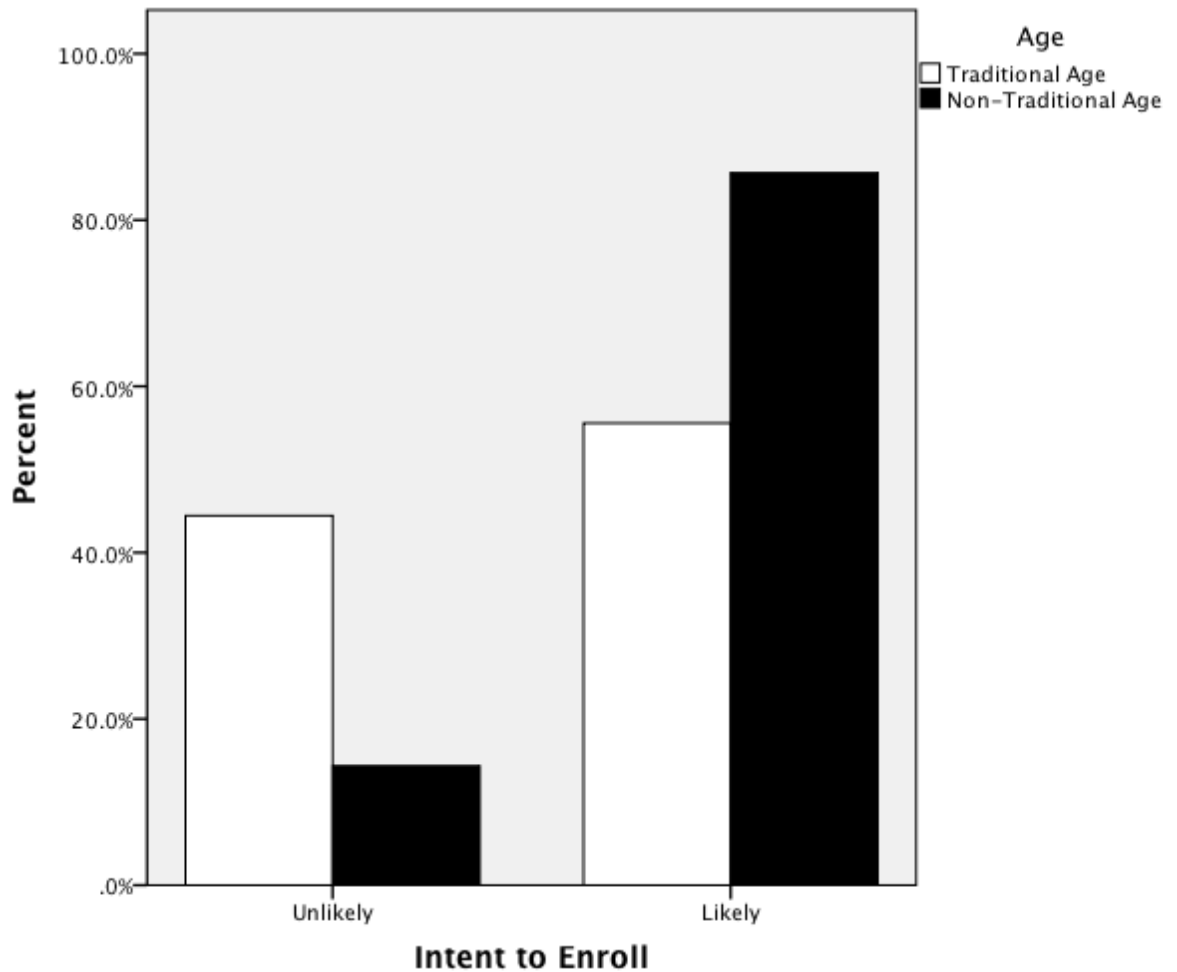


Figure 21. Bar graph of age and intent to continue enrollment. This figure illustrates traditional age (white) and non-traditional age (black) and the association to intention to continue enrollment.

Similar outcomes were determined when examining students' intent to graduate. Of the 268 students who responded, the intent of 241 (82.0%) of these students' was to graduate. As such, 85.8% of the non-traditional students and 48.1% of the traditional age students responded with positive intentions of graduating. The bar graph below outlines the breakdown of student intent to graduate by age category (as shown in figure 22).

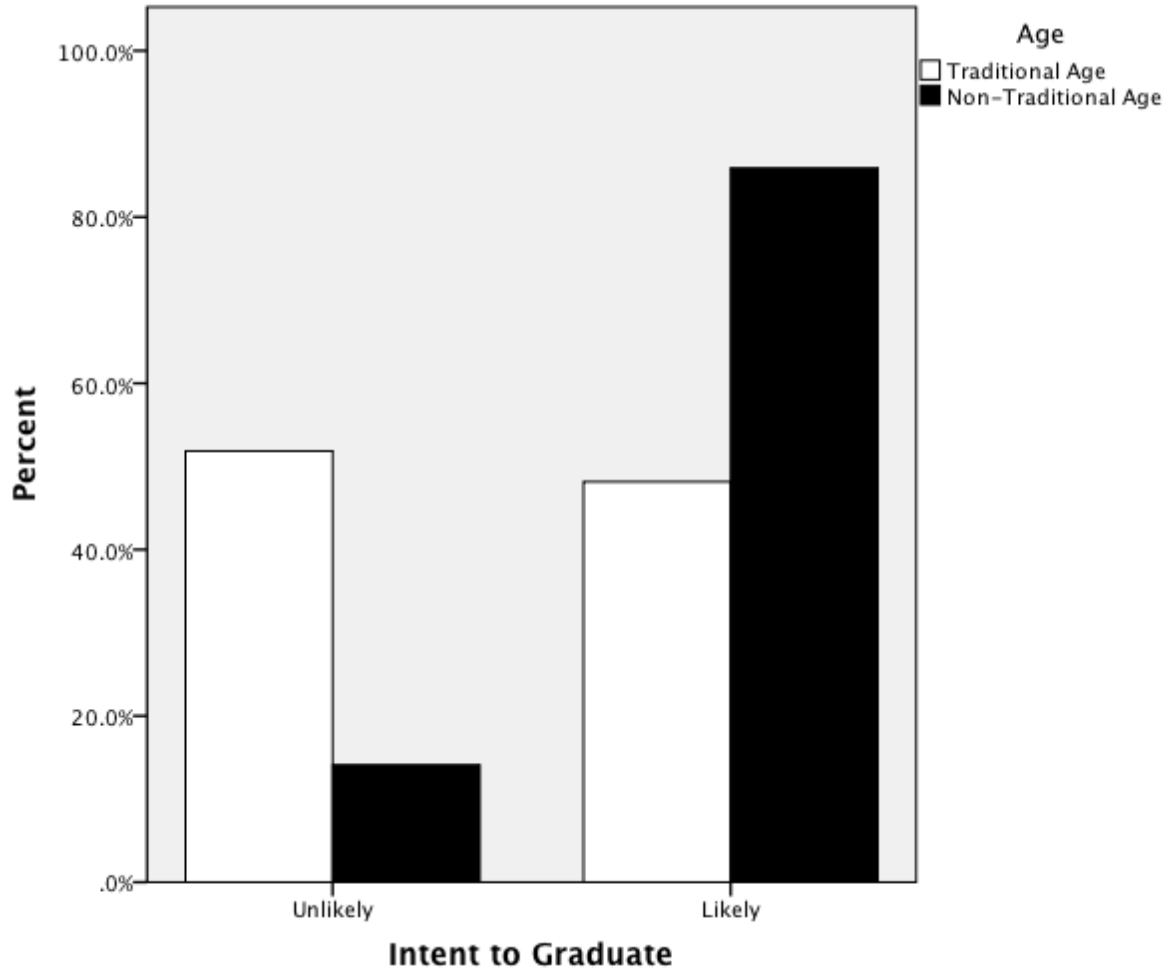


Figure 22. Bar graph of age and intent to graduate. This figure illustrates traditional age (white) and non-traditional age (black) and the association to intention to graduate from Mile High University.

Enrollment

A total of 270 students shared their enrollment status. Of the full-time enrolled students, 153 (86.4%) indicated their intention to continue enrollment at Mile High University (as shown in figure 23). Also, 70 (75.2 %) of the part-time students who responded to the survey intend on continuing. The 17.4% whose intention is to not to continue, 48.9% are part-time students, and 51.1% are enrolled full-time.

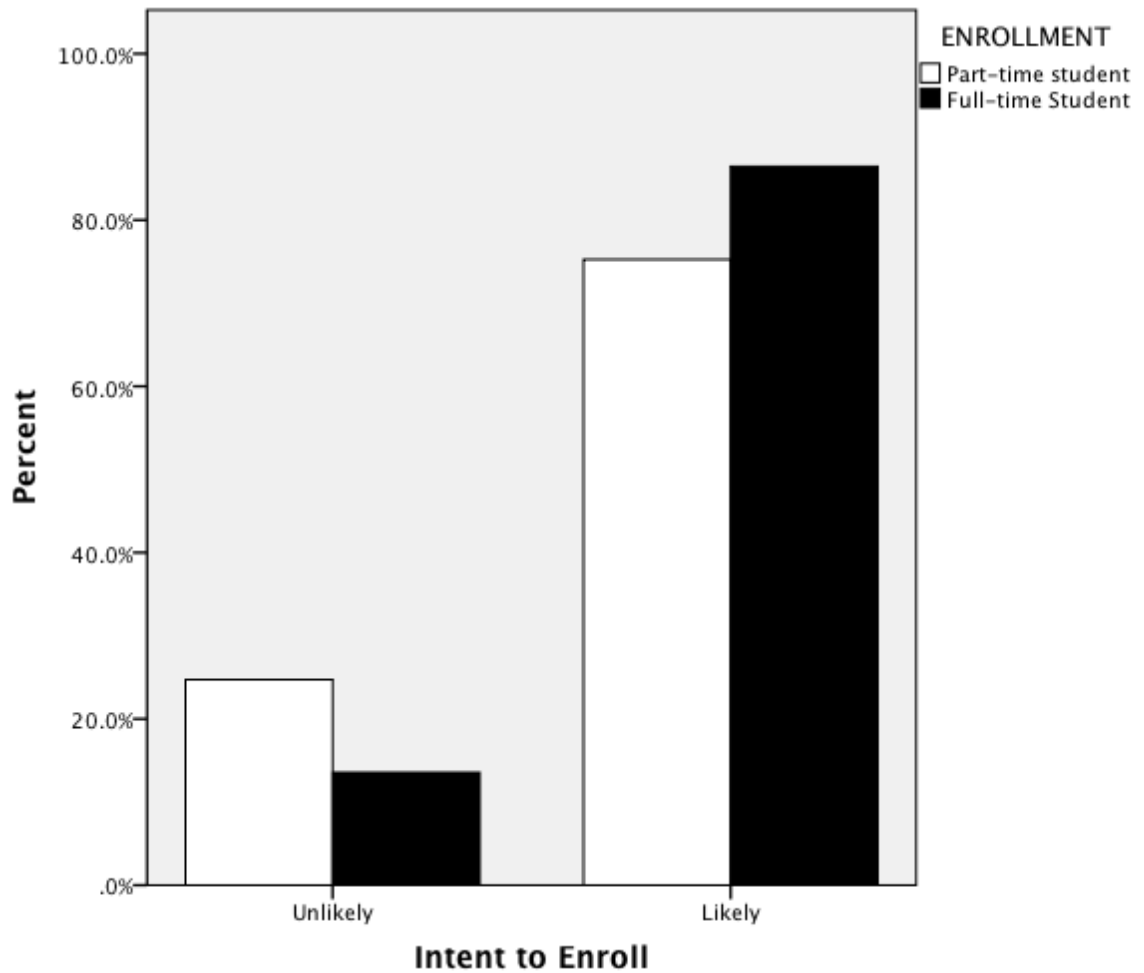


Figure 23. Bar graph of enrollment classification and intent to continue enrollment. This figure illustrates part-time students (white) and full time students (black) and the association to intention to continue enrollment.

The skew in the data of high intent to continue and graduate continues to be represented in the demographic characteristics and presents itself again when examining

students' intent to graduate. Similar to the outcomes related to intent to continue, 72.0% of students who were enrolled as part-time and 87.4% who were full-time intend on graduating, as shown in figure 24. In total there were 48 (17.9%) students who indicated their intent was to not graduate from Mile High University, 54.2% were part-time students and the remaining 45.8% were enrolled full-time.

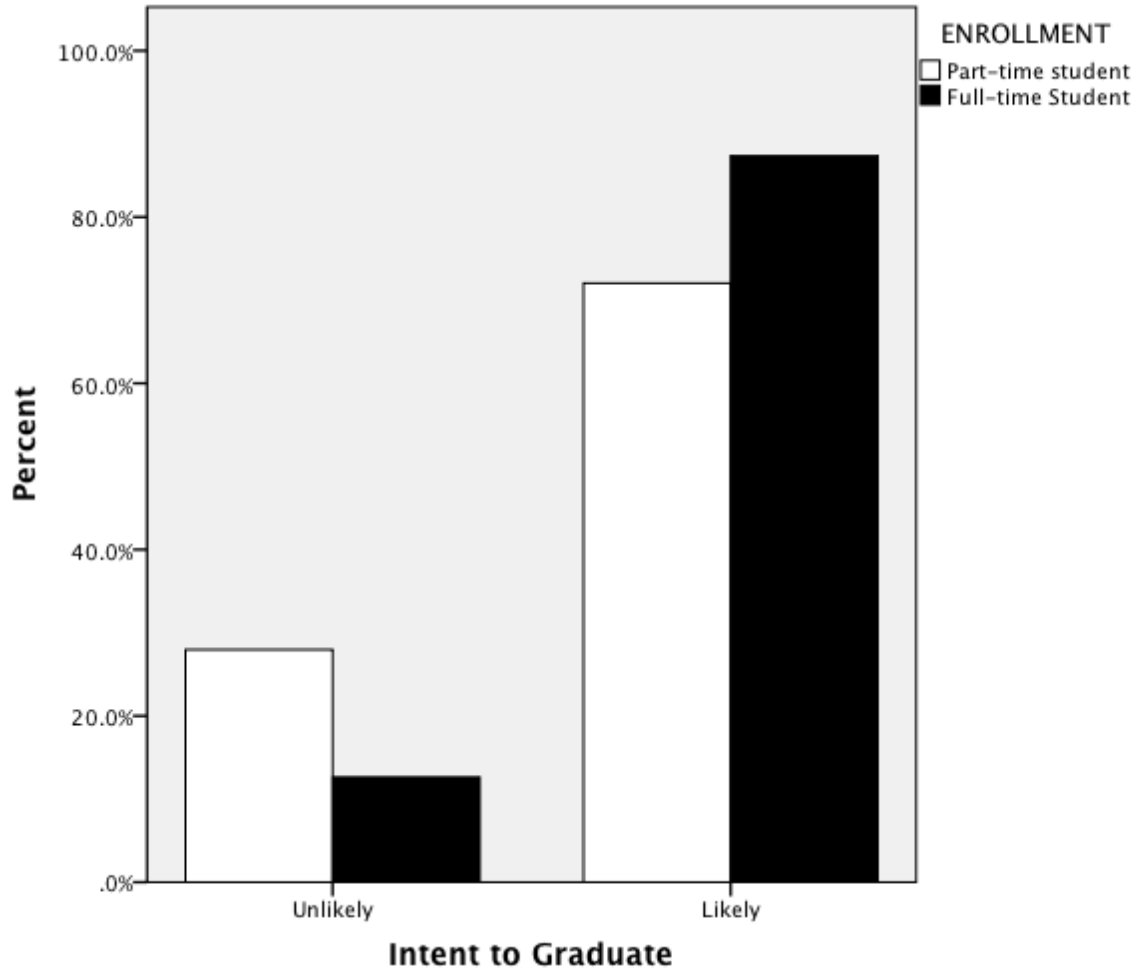


Figure 24. Bar graph of enrollment classification and intent to graduate. This figure illustrates part-time students (white) and full time students (black) and the association to intention to graduate from Mile High University.

Gender

The majority of students indicated their intention to continue enrollment or graduate, and relatively low number signified they were unlikely to enroll or graduate. The majority of female students (83.5%) and the majority of male students (81.4%) intend on continuing their enrollment (as shown in figure 25). The small number of students who are unlikely to continue their enrollment was 17.2% that 34.8% represent male students, and 65.5% were female students.

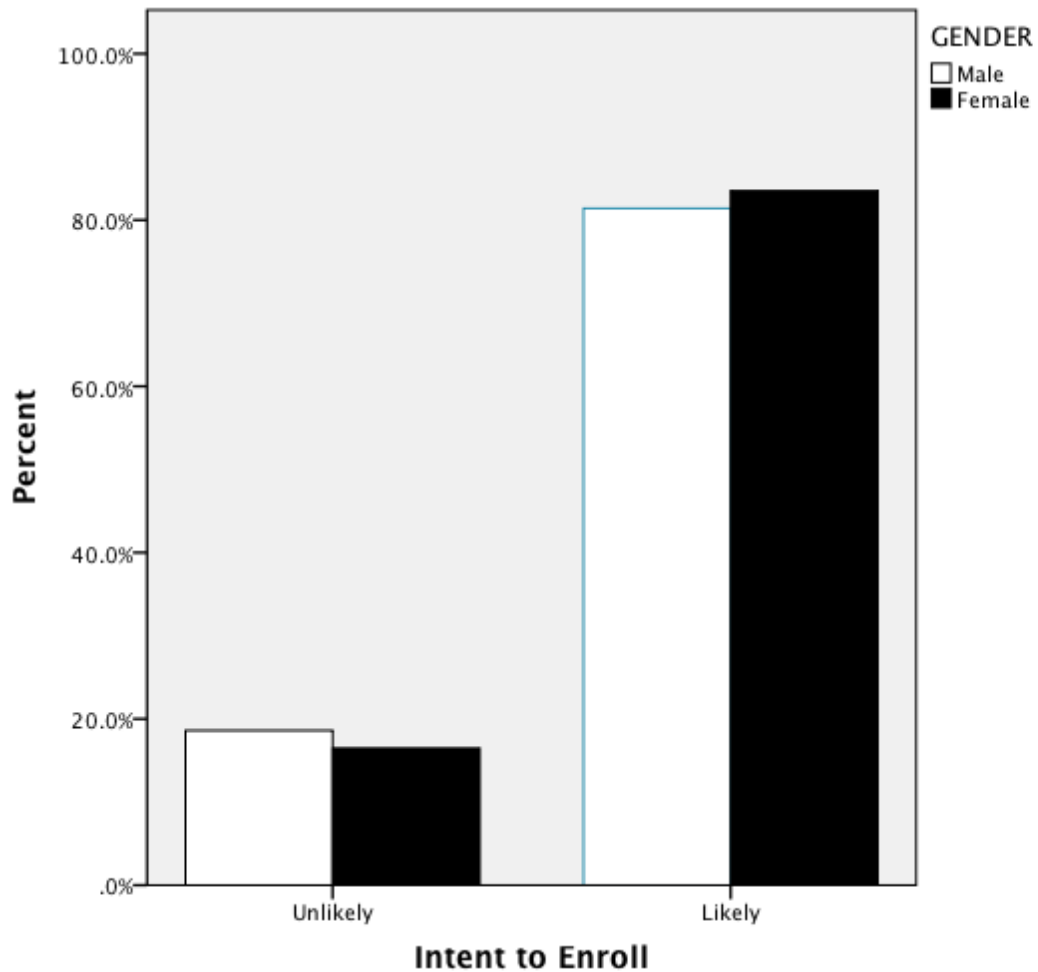


Figure 25. Bar graph of gender and intent to enroll. This figure illustrates male students (white) and female students (black) and the association to intention to continue enrollment.

Similar results were found when examining student intent to graduate. Of the 265 respondents, 82.2% of female students who responded to the survey intend on graduating and 82.3% of the male students who also responded plan on graduating (as shown in figure 26). Once again, a small number of students indicated their intent to not graduate (17.7%) and of those 31.9% are males, and 68.1% are females.

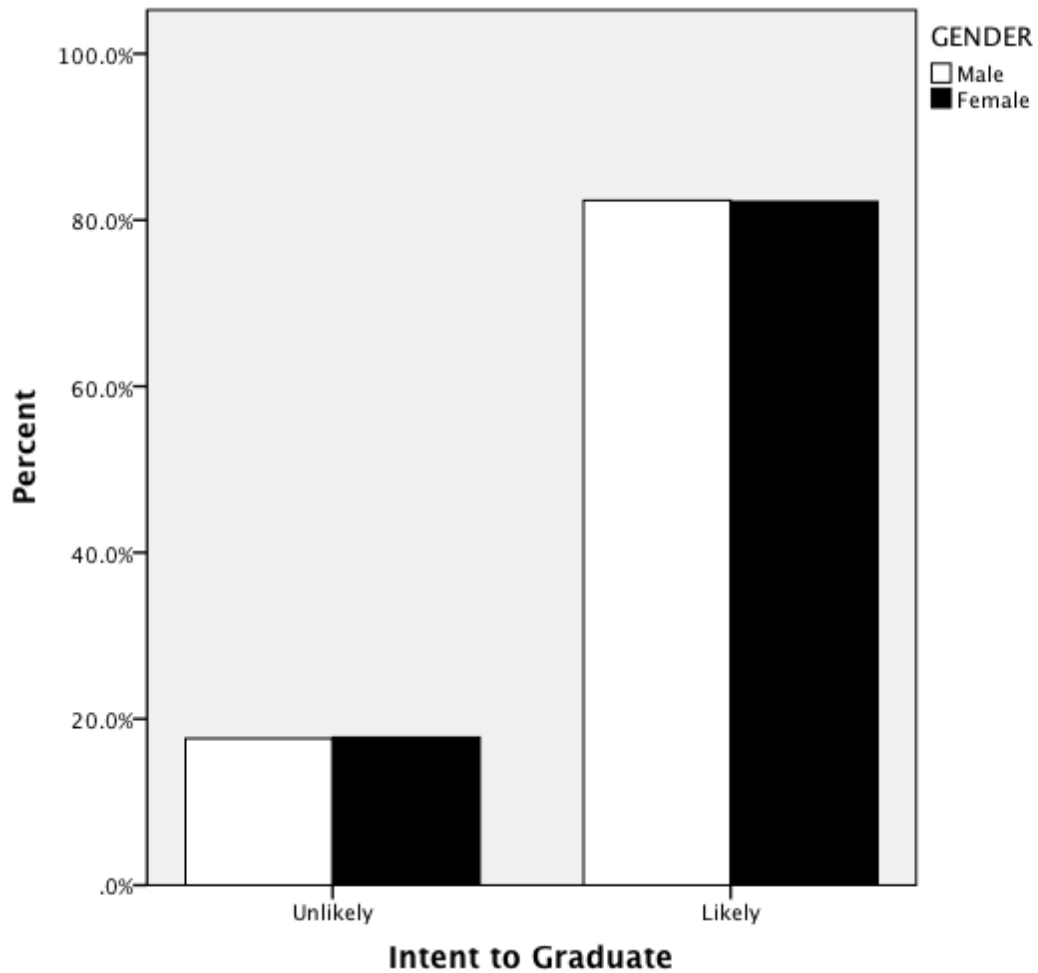


Figure 26. Bar graph of age and intent to graduate. This figure illustrates male students (white) and female students (black) and the association to intention to graduate from Mile High University.

Ethnicity

The ethnicities were sorted into five classifications (African American, Hispanic/Latino, White, multi-ethnic and other, non-multi-ethnic). Within each ethnicity, the majority of students indicated they were likely to continue their enrollment and graduate with the exception of one (as shown in Figures 27 & 28). Among Hispanic students, 54.3% indicated they were less likely to graduate, yet 65.7% Hispanic students also specified they were likely to continue to enroll the following semester. As was found in each of the demographics, a low percentage of students had no intention of continuing and graduating. There were 17.7% of students who had no intent of continuing and 18.3% of students who had no intent on graduating represented by the various ethnicities.

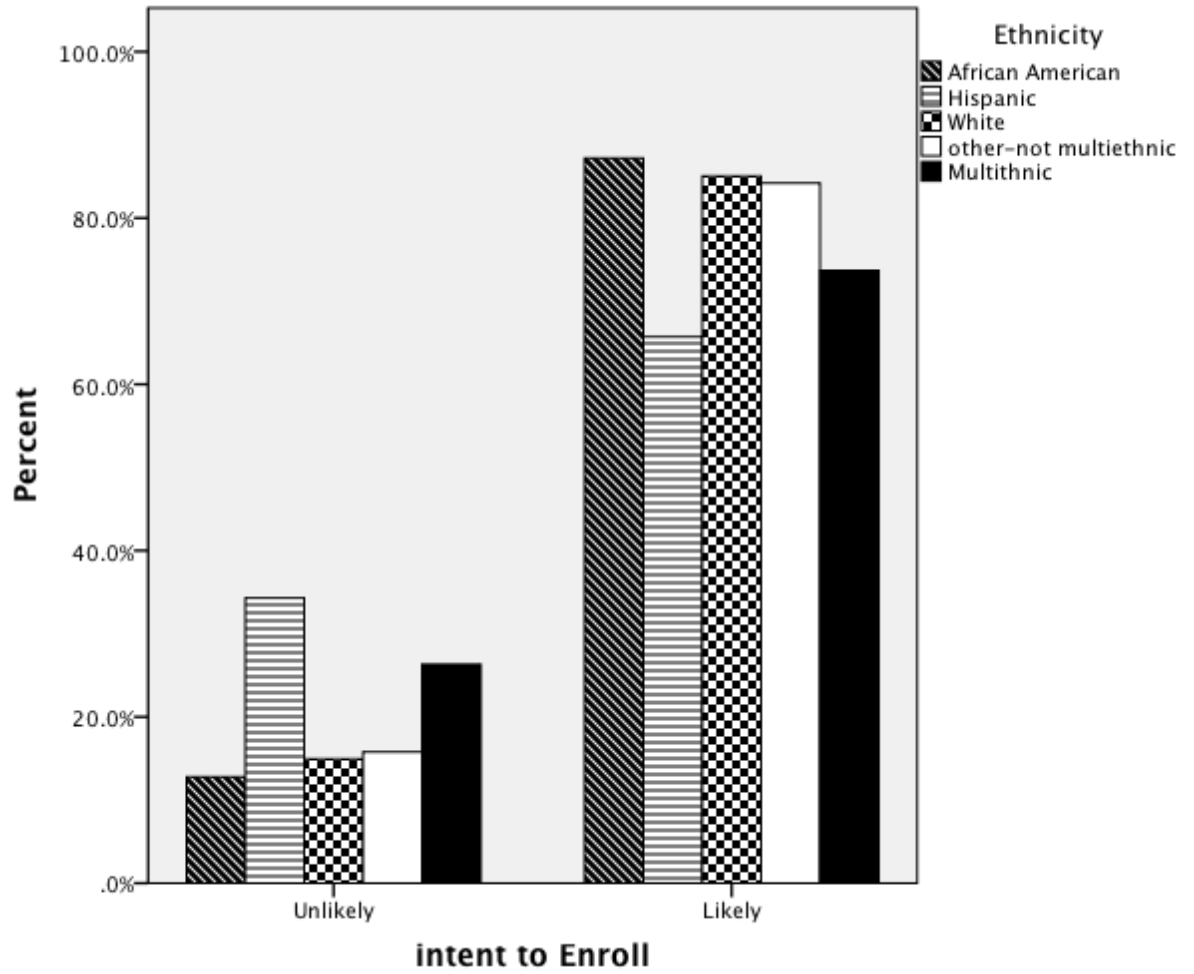


Figure 27. Bar graph of ethnicity and continuing enrollment. This figure illustrates five ethnicities and the association to intention to continue enrollment.

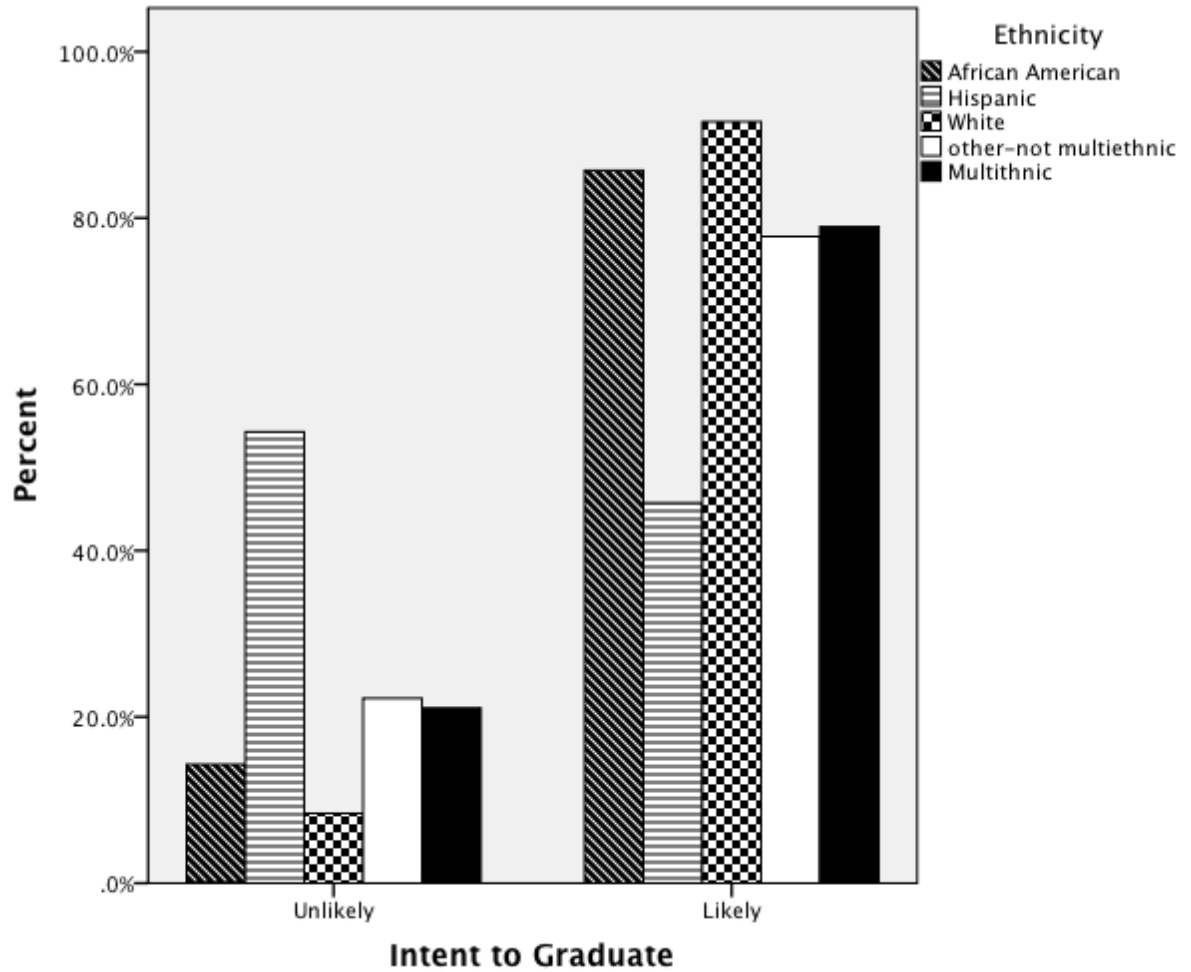


Figure 28. Bar graph of ethnicity and intent to graduate. This figure illustrates five ethnicities and the association to intention to graduate.

The four characteristics under examination included age, gender, ethnicity, and enrollment status. In this study, the regression analysis that included the demographic variables yielded questionable outcomes as a result of the small number of students whose intent was to not continue their enrollment or graduate. When these behavioral intents were further subdivided into the various characteristics, the individual survey results were as small as 12 or 13 students who for example, indicated a lack of intent to

continue enrollment or graduate by individual characteristic. As such, the best way to yield insightful demographic information was to look at the descriptive information.

Students demonstrated high intent to continue and graduate from Mile High University. This was consistent across demographic categories, irrespective of the individual characteristic under examination. For example, the majority of students who were either traditional age or non-traditional indicated “very likely” or “likely” to continue their enrollment and very few indicated “unlikely” or “very unlikely.” This common response trend was found in the analysis based on age, gender, enrollment status and ethnicity. Similarly, this outcome was present when considering intent to graduate. The majority of students in each category intend on graduating.

Disparity Between Intentions and Actual Graduation

Participants who responded to this survey have clearly indicated a high intention of continuing their enrollment and graduating from Mile High University. Examination of the demographic variables reaffirmed the broad stroke of positive intentions. This was very good feedback for Mile High University; however, may not provide the institution insight to understand the needs of students whose intention is to not continue or graduate. The misalignment may suggest either that intention is a poor predictor for actual performance or existence of response bias.

Response bias, in general, consists of a wide range of possible biases that influence participant responses. Two questions provided additional insight in examining this mismatch between intention of graduation and actual graduation: year in school, and the number of credit hours completed. 67.6% of students with high intent to graduate who indicated they were in their first year or third year and above at Mile High University.

Secondly, 73.2% of students had completed either less than 30 or more than 75 credit hours. These percentages indicate that participants are either just starting at Mile High University or are more than half-way through their program of study. It is reasonable to assume that students who are just starting their program would likely intend on continuing to graduation. Furthermore, those who are nearing completion would also have a higher likelihood of graduating. While neither of these intentions may translate to an actual outcome, these suppositions could explain this misalignment.

Summary of Findings

For-profit colleges are struggling with low persistence and graduation rate. In effort to explore this problem this research study used the SERVQUAL instrument (Parasuraman et al., 1985) to examine the relationship between students' perceptions and expectations and students' intent to persist and graduate from Mile High University. The SERVQUAL instrument is a survey tool designed to gauge customers, or in this scenario, students' evaluation of performance. The instrument includes 27 questions to assess students' perceptions and expectations of service quality using a Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The survey questions are subdivided into five categories or dimensions (tangibles, reliability, responsiveness, assurance, and empathy). The data was analyzed using the gap score that was computed by subtracting perception score minus expectation score in each student response. These scores were totaled and divided by the number of questions designated per dimension. This created the institution's gap score in each of the five SERVQUAL dimensions. The dimensions assurance was not retain in this study as it lacked internal consistency. The remaining dimensions included, Tangibles ($m= 1.1294$, $SD= 10.21361$, range=-43.00 to 66.00);

Reliability (m= 0.6589, SD= 8.58784, range= -42.00 to 42.00); Responsiveness (m= 0.315, SD= 6.06708, range= -30.00 to 30.00); and Empathy (m= -0.1719, SD= 2.80786, range= -12.00 to 12.00). The gap scores were used to predict the two behavioral variables of interest; student's intent to continue enrollment and intent to graduate.

In total 1700 students were sent an e-mail link to the SERVQUAL survey in which 327 students submitted responses. Over half the responses were from female students (57.8%). The majority of responses were from white students (35.6%) with a sizeable number from African American students (27.2%). Full-time students represented 56.9% of the responses, and an overwhelming majority of submitted surveys reflect students who are older than 24 (78.3%).

Upon completion of logistic regression analysis, of the four SERVQUAL dimensions reliability was the only statistically significant predictor of the two behavioral intent variables, continuing enrollment and graduation. The reliability dimension measures students' perceptions and expectations in regards to the institution's provision of accurate and dependable service. Based on this analysis students whose perceptions exceed their expectations of the institution providing accurate and dependable service were more likely to continue their enrollment and graduate from the institution. The odds of a student with a higher reliability gap score continuing enrollment was 1.16 times more likely than those students with lower reliability gap scores. Further, the odds of a student with a higher reliability gap score graduating was 1.14 times more likely than those students with lower reliability gap scores. The remaining three SERVQUAL dimensions were not statistically significant predictors (tangibles, responsiveness, and empathy).

When examining the data with the inclusion of four demographic variables (gender, age, enrollment status, and ethnicity) over and above the SERVQUAL dimensions the analysis became questionable. The number of respondents unlikely to continue enrollment represented 14.4%, and those unlikely to graduate was 14.7%. When this was distributed into the demographic variables, statistical significance was suspect, and examination of the descriptive statistics was more productive.

Certainly the purpose of this study was to examine the relationship between students' expectations and perceptions of service quality and students' intent to persist and graduate. The driver for this research was to understand students in attendance at a for-profit college in a more meaningful way to make some sense of the low graduation rate that is experienced within the for-profit industry. The results of this survey indicated strong student intent to continue (82.7%) as well as intent to graduate (82.2%) that resulted in very skewed data. Mile High University full-time, first-time degree- or certificate-seeking students pursuing a bachelor's degree who graduate within six years is 20% (National Center for Educational Statistics, n.d). The following chapter will provide a more in-depth analysis of persistence outcomes and explore disparity between students' intent and actual outcomes.

CHAPTER V

DISCUSSION

This chapter will fully discuss the findings of this study and the implications for proprietary institutions based on Tinto's Model of Student Integration (1993). The behavioral intent outcomes and the SERVQUAL predictor variables will provide a guide to understanding the findings, followed by implications and recommendations for research, theory and practice. A review of possible limitations and closing remarks will conclude this chapter.

Research Design

Student retention is not a new topic of discussion in higher education but a continuing conversation among educators, scholars and government officials. Scholars have written numerous books, articles, and dissertations dedicated to understanding student persistence and graduation rates. Educators have made great strides to comprehend the process of departure, yet institutions continue to struggle to retain and graduate students. The average completion rate of students seeking bachelor's degrees is 65% at private non-profit colleges, 55% at public institutions and dwindling to 22% at for-profit colleges and universities (Lynch et al., 2010). For-profit colleges offer an array of opportunities including online courses, flexible meeting times, and accelerated programs as well as virtually open access admittance. However poor retention rates are a

lingering concern among many, including the Department of Education. Tinto (2006-2007) would contend it is one thing to recognize why students leave, but it is not always clear how institutions can support students to stay and graduate. Tinto's Model of Student Integration (1993) focuses on the nature of students' academic and social integration into the institutional community. This theoretical framework provided the foundation to understand the process of student connection to the institution in such a way that supports persistence leading to graduation. To gain a greater insight into student connection or lack thereof, this study examined the relationship between expectations and perceptions of service quality held by students at Mile High University, and these students' intent to persist and graduate at for-profit college. Assessing student expectations assists in identifying ways institutions can improve the quality of service to better match student needs to support integration into the social and academic aspects of the university (Tinto, 1993; 2012).

Research Questions

The five research questions that guided this study began with an examination of the inter-correlations among the gap scores (perception minus expectation) for each of the five SERVQUAL scales. The remaining four questions focused on determining the relationship between the SERVQUAL gap scores for each dimension and the two behavioral intent variables: students' intent to re-enroll and intent to graduate. This study also examined the unique contributions of the demographic variables (age, gender, enrollment status and ethnicity) to the relationship between the gap scores and intent variables.

Review of Methodology

In this quantitative study, a survey was employed to understand students' perceptions and expectations of service quality. Although the survey contained four parts, the primary section of interest was the SERVQUAL instrument (Parasuraman et al., 1985) adapted for use in this particular study. The original SERVQUAL instrument was designed to be a skeleton format easily adapted through minor modifications of the wording of individual items and the inclusion of additional questions to meet the needs of various industry types (Parasuraman, Zeithaml & Berry, 1991). As such, the instrument used in this study was an adaptation, designed for students in attendance in a distance education program (Parks, 1997). Minimal modifications to the basic SERVQUAL instrument were necessary. These included eliminating three questions and a slight change of wording to match the audience of this study; students attending a for-profit college.

All undergraduates attending Mile High University, a small for-profit college that provides coursework exclusively using on-line methods, received the questionnaire. Of the 1700 students, 327 participated, yielding a 19% response rate. The survey entailed four parts: one section was designed to solicit student characteristics such as, age, gender, enrollment status, and ethnicity. The second part contained SERVQUAL items to measure service quality gaps. This section consisted of 27 items using a Likert scale ranging from 1-(*strongly disagree*) to 7-(*strongly agree*) to measure students' expectations and perceptions related to the five dimensions (tangibles, reliability, responsiveness, assurance, and empathy). The level of service quality is defined by the gap between students' actual/perceived and expected service for each of the five

SERVQUAL dimensions. The third section rated the overall performance of service separated by the individual dimensions. The fourth and final section included a series of questions about the overall performance of the institution. The survey also provided an opportunity for two open-ended responses:

1. Based on your response to intention to enroll in courses at Mile High University, would you share your reason(s) for continuing, not continuing, or being undecided about enrolling in courses next semester.
2. Please share any additional information about your experience at Mile High University.

The program SPSS, version 22.0 was used to analyze the data, obtaining statistical information about the relationships between SERVQUAL gap scores and students' behavioral intentions regarding their intent to re-enroll and intent to graduate. The various analyses included descriptive statistics (frequency, mean and standard deviation), Pearson Correlations Coefficients as well as Linear and Logistic Regression.

Discussion of Findings

This research study examined the relationship between students' expectations and perceptions of service quality and intent to continue enrollment the following semester and intent to graduate at Mile High University. The level of service quality is identified by the gap score between perceived and expected service for each of the SERVQUAL dimensions: tangibles, reliability, responsiveness, and empathy. The dimension of assurance was not included in the analysis because the internal consistency of the gap score for the assurance scale was below the minimally accepted level.

Dependable and Accurate Service

Using the remaining four dimensions, the study found that reliability was the only dimension that was statistically significant related to intent to continue enrollment and intent to graduate. This implies that reliability has predictive capability to understand student intent to continue as well as intent to graduate. Additionally, based on student responses, their perceptions of whether the institution maintained dependable and accurate service exceeded their expectations that the institution and/or its representatives did so. Therefore, one could conclude that as students' regard for the dependable and accurate quality of the institution's service increases, the likelihood of those students intending to continue their enrollment and graduate also improves.

An examination of the individual questions related to the reliability dimension revealed the top three expectations are: "Colleges/Universities will have faculty or staff with whom students are comfortable communicating," "Colleges/Universities will provide return of course assignments timely," and "Colleges/Universities will have faculty and staff who instill confidence in students." Based on these responses it would be advantageous for Mile High University to focus their attention on the ability of faculty and staff to communicate effectively with students. This extends beyond just verbal communication but also to the handling of student assignments. As such, it may be important to enhance further the communication skills and knowledge base of faculty members to support retention efforts (Tinto, 2012). This would include identifying institutional expectations and encouraging faculty development opportunities that promote developing more effective communication skills. The one place where all students converge is in the classroom. It is essential the classroom experience be at the

center of retention initiatives (Tinto, 2012).

The findings suggest that not only does dependable and accurate communication assist with student satisfaction it also triggers students' intent to persist and graduate. This high level of satisfaction combined with the predictive quality of the reliability dimension is helpful for Mile High University to understand the significance of encouraging and maintaining dependable and accurate service. The remaining three dimensions (tangibles, responsiveness, and empathy) were not statistically significant and did not, as such, provide information to predict student intent to continue or intent to graduate. However, these dimensions offer additional insight with respect to understanding student outlook.

Appearance and Information

Each SERVQUAL dimension offers different insights about satisfaction (Parasuraman et al., 1985) that can be useful in recognizing students' expectations and perceptions related to the quality of service provided by Mile High University. The tangibles dimension focuses on student perceptions and expectations of the appearance of the brochures, website, course offerings and educational materials. The participants perceived the quality related to tangibles to be higher than expected. This suggests that students generally were satisfied with the appearance of things they can touch or see at Mile High University. More specifically, of the questions asked, participants' highest-ranking expectations included: offer courses that apply to career goals, clearly defined lesson objectives and assignments, and information about additional opportunities for scholarships and financial aid.

Overall, the gap score for the tangibles dimension indicated that students' perceived the quality of service slightly higher than expected, although when examining the individual questions one, in particular, stood out. Mile High University is not meeting expectations of providing information and offering scholarships and financial aid. In general, financial pressure can be a negative influence on student persistence and low-income students are less likely to graduate than other students (Tinto, 1993, 2012). Furthermore, 70% of Mile High University students participate in the Pell Grant program. As such, Mile High University should examine the steps that are taken to provide needed information about college affordability and consider ongoing contact to monitor students' and their ability to afford their college education. Though the tangibles dimension does not predict continued enrollment or graduation, it is still helpful information for Mile High University to use in combination with the other outcomes to see a more complete picture of students' perceptions and expectations.

Willing and Prompt Service

The responsiveness dimension evaluates the perceived willingness of the institution to help students and provide prompt service. As in the evaluation of both the reliability and tangibles dimensions, this dimension student continued to maintain a higher perception than their expectation. Further students maintain high expectations of Mile High University, their perceived quality of service related to willingness to help students promptly is slightly higher. Students indicated first and foremost they expected that colleges/universities told students exactly which services are provided, followed by expecting colleges to have regular contact between students and faculty, either written, verbal, or electronic. These expectations are similar to what was found in the reliability

dimension. Students of Mile High University expect clear and comfortable lines of communication. Students use a variety of formats including text chatting, e-mail, discussion forums, and video conferencing to interact online with faculty and staff. The level of interaction with faculty members, both formal and informal, is an important aspect of student academic and social integration (Tinto, 1993; 2012). Faculty and staff should be conscientious about creating meaningful opportunities to reach out to students, as interaction with members of the institution is critical to persistence (Terenzini & Pascarella, 1977; Tinto, 1993). Mile High University students are exhibiting satisfaction with faculty and staff members' responsiveness to their needs, and monitoring students' perceptions can only further support student satisfaction.

Care and Individualized Attention

The one dimension where student expectations were greater than their perceptions is empathy. This dimension focuses on how the institutional environment shows care and individualized attention to students. In general, students demonstrated satisfaction based on their survey results, yet their expectations slightly exceed their perceptions of empathic approaches. Tinto (2012) would argue that support matters. Institutions need to examine carefully academic and social interventions. Faculty and staff should develop the ability to bridge various academic and social gaps for student success (Tinto, 2012). For example, faculty may need to examine how the acquisition of knowledge occurs and further how this translates for Mile High University students in an on-line classroom experience.

Connecting to peers may be difficult in an on-line environment. As such, faculty may need to directly encourage peer networks. Scholars suggest peer interaction assists

students in several manners, including the acquisition of knowledge, academic development, and individual self-esteem (Kuh et al., 2007). Peer interaction further leads to social integration that Tinto (1975) argues supports student persistence. Mile High University can take comfort in students demonstrating a high level of satisfaction, yet Mile High University students also are expecting more empathic care and concern.

Age, Gender, Ethnicity and Enrollment Status

Overall, student perceptions of the institution's provision of service are high. The ratings for most dimensions appear to indicate that students are "strongly agreeing" or "agreeing," thus creating positive gap scores. A positive gap score implies that student perceptions exceed their expectations. Only one of the four dimensions (reliability) is predictive of continued enrollment and graduation. However, not only are students exhibiting satisfaction about service quality, over 80% of the students also indicated their intent to continue their enrollment and graduate from Mile High University.

Furthermore, this study considered demographic characteristics such as age, ethnicity, enrollment status and gender. Scholars have suggested that each of these characteristics play a role in student persistence (Habley et al., 2012). When these characteristics were included in the regression analysis along with the SERVQUAL dimensions, the results created very small subgroups leading to questionable statistical outcomes. Accordingly, the descriptive statistics were analyzed, and it was determined that the participants demonstrated high intent to continue and graduate from Mile High University irrespective of the characteristic under examination.

Positive intentions were consistent across each of the demographic categories. For example, the majority of female students (83.5%) and the majority of male students

(81.4%) intend on continuing their enrollment. This was the same for each of the remaining characteristics: age, enrollment status and ethnicities. In the end, the characteristics examined for this study did not provide additional insight beyond reaffirming students' intent is to continue at and graduate from Mile High University.

Disconnection to Actual Graduation Rate

Positive responses are, of course, very good news for Mile High University. They demonstrate student perceptions of the efficacy of policies and practices of administrators and faculty members. Participants appear committed to the pursuit of their education and show satisfaction with their experience related to the quality of service provided by Mile High University. Yet most recent data from Mile High University indicates that the percentage of full-time, first-time degree- or certificate-seeking students who graduate for with a bachelor's degree within six years is 20% (National Center for Educational Statistics, n.d), signaling a discrepancy between students' intent to persist and graduate and the actual graduation rate at Mile High University.

This finding provokes more questions than answers. The incongruence suggests possible response bias or that intention is a poor predictor for actual performance, in this case, graduation. This study was unable to conclude the cause for this disparity. Nevertheless, Tinto (1993) would argue that student commitment to the goal of graduating is integral to students' likelihood of persisting, though it is unclear if intention would be considered the same as commitment to graduate. Nevertheless these positive indications are susceptible to external forces (outside responsibilities) and a lack of academic preparation that have been found to influence students' goal of graduation (Tinto, 1993). Further, as the findings suggest, the participants of this study were either

in their first year or more than halfway through their program of study. It is reasonable to suggest that these students would be more likely to feel optimistic about graduating.

Participants' satisfaction was also consistently high related to the quality of service of tangibles, reliability, and responsiveness dimensions. However, this was not the case for empathy, as expectations appear to remain unmet. Based on participants' responses students expect a high level of service. For example, students expect that college/universities' brochures, websites and educational materials be attractive. Also, students expected that institutional offices' and departments' would provide accurate and dependable services with a willingness to help promptly students. These students also indicated that institutions should demonstrate care and show empathy to students as reflected by policies and procedures. Although these high expectations, for the most part, were met, what was not determined is if some of these features are more important than others. This question was asked on the survey for students to rank the importance of these features. Unfortunately most students did not fully respond, making the data unusable.

The inability to understand how students would assign importance to each of these expectations makes it difficult to determine what is the most useful information to prompt change or continue to value as an institution. Tinto (1993, 2012) argues that institutions need to understand the students they serve and to routinely assess student experiences. Satisfaction is important and provides Mile High University with useful and actionable data (Astin, 1993). However, if this information also ranked importance of expectations the institution may have better able to assess what appears to be misalignment between the survey results and actual institutional reality.

This study revealed two overarching themes. The first theme was student satisfaction, or dissatisfaction, as it relates to the quality of service, and, for the most part, was not a predictor of intent to enroll and intent to graduate. Although satisfaction can be a powerful indicator for Mile High University to gauge their effectiveness of providing service, the satisfaction indicator does not prove to encourage or dissuade persistence leading to graduation. Secondly, participants shared a high intent to continue and graduate from Mile High University. There may be variety of reasons for this disparity as the actual graduation rate at Mile High University was significantly different than survey respondents' intentions. A simplistic reason could be that the students who like this institution are also the students who participated in the survey--ranging to the most complex discussion of response bias. In any case, this misalignment has implications for this study and thus prompts recommendations.

Implications and Recommendations

This study examined the expectations and perceptions of students who attend a for-profit institution and the relationship of these factors to their intent to continue and graduate. Expectations, in this sense, reflected the quality of the experience students anticipated that they would have in their interaction with a University; the perceptions was interpreted as reflective of their actual experience/interaction with Mile High University. The results of this study for the most part are applicable to Mile High University, but a few can be generalized to for-profit institutions. The following will review implications and recommendations for research, theory, and practice.

Implications for Research

Issues of student persistence/departure encompass a complex set of factors. Many institutions use several approaches to understand student needs and intentions and often find surveys to be helpful tools. This study employed a cross-sectional survey design that was an appropriate method for this initial research. It offered insight into students' expectations and perceptions of service quality at Mile High University. This was only reflective of students satisfaction based on one point and time and was limited to students' intentions and not reflective of students' actual outcomes of enrolling the following semester or graduating. The recommended steps to improve retention are identifying the specific needs of students the institution serves and developing a framework of action that includes those findings (Tinto, 2012).

Longitudinal study. Engaging in a longitudinal study may provide further insights into understanding student expectations and perceptions over a period of time and to gauge changes that could occur. This type of study has the added benefit of administering a survey at different points in the semester that may also be found to influence student responses. Inviting students to share their expectations and perceptions is a starting point, but enhancing this information with repeated observations allows the ability to detect change and perhaps create a picture of events as they unfold over time.

Qualitative data collection methods. It cannot be ignored that student intentions were not in alignment with the actual graduation rate. Incorporating other types of data collection methods such as focus groups or individual interviews might yield more in-depth understanding of student expectations and perceptions leading to a richer analysis. These methods may also assist in determining if the survey responses are a true reflection

of student experiences. They also allow for unstructured dialog that could lead to sharing of specific examples that students attribute to their satisfaction or dissatisfaction. The inclusion of these qualitative approaches could lead to a heightened discernment of how students feel, what they think and why they make certain choices.

Academic indicators. Future research might also consider the inclusion of academic indicators such as grade point average. Many colleges and universities admit academically underprepared students. This is an especially true statement regarding for-profit institutions (Douglass, 2012). Grades provide both students and the institution with clear indicators of academic performance, and many scholars agree that grade point average is a strong predictor of persistence (Murtaugh et al., 1999). Examining grades in relationship to student expectations and perceptions can assist in providing a fuller picture of students' needs and abilities. College completion requires effort, and the inclusion of grades can further provide a sense of students energy allotted towards the goal of completion (Habley et al., 2012; Tinto, 1993). A student may indicate a strong intent of continuing and graduating however grade point average may suggest that the intention is not reflective of actual energy and time devoted towards their education. The addition of academic gauges may provide additional understanding of the relationship between students' intent to continue to graduation and student perceptions and expectations.

Cohort classification. Future research might benefit from either classifying the data by cohort or following a specific cohort in a longitudinal study. The development of retention programs may be advanced by the inclusion of student satisfaction of service quality examined through the lens of the year in school. Students may exhibit different

needs depending upon their program progress or needs may change overtime that could be identified if the cohort was followed. As such, including enrollment classification of number of credit hours completed could more narrowly focus the feedback and direct action.

Implications for Theory

Tinto's Interactionist theory (1993; 2012) provided the theoretical framework used to understand student integration as it relates to institutional actions. This theory provided an understanding of the interaction between the institution and the student as it relates to college completion. Tinto (1993) outlined four factors (adjustment, difficulty, incongruence, and isolation) that work in conjunction with one another and influence students' decisions to persist or depart. Institutional actions of colleges/universities need to mitigate these factors to assist in encouraging integration (Tinto, 2012) and, as a result of that integration, student persistence. Tinto enhanced this theory by outlining four conditions that need to be present in order to encourage integration and support student success. These include communication, support, assessment, and involvement. The alignment between these factors that influence persistence, and institutional conditions have been shown to work effectively in traditional college settings (Braxton, 2000) but this theoretical framework may not completely appreciate the for-profit college environment. In general, students who attend for-profit colleges tend to have less academic preparation, are over the age of 24, and maintain a variety of personal/professional responsibilities in addition to pursuing their education (Hentschke et al., 2010). These may include child rearing, single parenting, and balancing their schoolwork with a full-time job. Hence, Tinto's theory may fall short of understanding

the demands of students who attend for-profit colleges and how these additional strains influence a student's ability to persist to graduation. The four factors defined by Tinto (1993) that influence a decision to persist or depart may need to expand to include a deeper understanding of non-traditional age students and the multiple factors impacting their educational experience. Further exploring the interaction that occurs at a for-profit college environment and the role the institution needs to play to support retention to graduation will be additional important research that would benefit both students attending for-profit institutions and the institutions themselves.

Implications for Practice

The results of this study indicated that the overall quality of service rated in the various dimensions either met or slightly exceeded student expectations with the exception of empathy. These outcomes provide Mile High University an understanding of how they are serving their students related to SERVQUAL dimensions.

Diagnostic tool. The SERVQUAL instrument has the capability to serve as a diagnostic tool for administrators and faculty members to reveal student expectations and perceptions related to service quality. The outcomes of the gap scores indicate a level of satisfaction or dissatisfaction that can be used to understand students' reflections of service quality. There are many student success measures; satisfaction is one that can be used as a barometer (Astin, 1993). Many scholars find students indicating satisfaction with their experience to be an antecedent to persisting to graduation (Kuh et al., 2007; Tinto, 1993). Greater insight into the global understanding of each dimension can be uncovered by examining individual questions to understand better student responses. Using this more detailed and, specific information can provide Mile High University with

a good sense of what students expect and further how the university is meeting, exceeding or identifying the need for improvement in these areas. The knowledge gained may pinpoint key areas requiring Mile High University administrator or faculty attention.

Gauging satisfaction. Of the four dimensions under examination, the reliability dimension provided predictive capability. Students not only indicated their satisfaction with receiving dependable and accurate service, but also, based on their experience these students were more likely to continue enrollment until graduation. In general, as for-profit colleges/universities struggle with student persistence, the ability to gauge student intentions would further aid in enhancing services designed to encourage student retention. Certainly a greater benefit is achieved as the SERVQUAL gap scores also maintain a relationship to intent to continue or intent to graduate.

Being able to connect specific areas of student satisfaction with intent to persist and graduate can be very helpful for Mile High University to assess and modify its retention approaches. Understanding the expectation students place on Mile High University being reliable can be incorporated in several respects from how information is conveyed in various forms such as the website, brochures, and syllabi as well as the interactions with faculty and staff members.

Comprehensive framework. Tinto (2012) would caution using information in such a way that does not include several constituencies of the institution (faculty and staff) when developing a strategic retention plan. Too many institutions retention policies and programs are merely a collection of varying initiatives that may or may not be in alignment with the specific needs of the students they serve (Tinto, 2012).

Practical application of programs and policies that encourage persistence is complex and needs to be fortified with a comprehensive framework that is sustainable for the institution (Tinto, 2012). Further, Tinto recommends the following four conditions that need to be present to support student success. These conditions include: communication, support, assessment, and involvement.

Communication is the ability of the institution to convey expectations for successful completion using various formats such as, websites, brochures, course syllabus and formal and informal dialog. Support involves attending to students' academic, social, and financial needs. The third condition is assessment. Institutions should seek student feedback as well as assess student progress towards college completion. Acquiring this information can be helpful to develop proactive interventions. The final condition is involvement, which includes connecting students to the fabric of the institution. Students are more likely to persist if all four of these conditions exist and are entwined in retention policies and procedures (Tinto, 2012). Nevertheless, there is always more to learn about student needs and desires, and additional research can only aid Mile High University to further support student success.

Limitations

While this study has made contributions to understanding the difference that may exist between students' expectations and perceptions at a for-profit, online institution there were also a few limitations. These included the length of the questionnaire, distinctions between each SERVQUAL dimension and a lack of actual institutional data.

There are many considerations in the development of a survey instrument. They include identifying the appropriate number of questions to solicit needed information

while not having too many that might negatively influence survey completion (Dillman, 2014). Of the 1700 students surveyed, the response rate was 19%. The removal of incomplete surveys from the dataset reduced this response rate to 13.2% of the population that completed the SERVQUAL questions. Participants often skip questions for a variety of reasons such as fatigue, disinterest, or the length of the questionnaire (Ornstein, 2013). This survey contained several parts and the average duration for submitted responses was 19 minutes. There were several questions that were included that were unnecessary for the purposes of this study. If those questions had been removed, a slight change in organization would have resulted in fewer sections with a smaller number of questions. Furthermore, examining the existing survey response times to individual questions that may have required more time from the participant than any others could lead to additional insights. Consideration could be given to redesigning the survey instrument giving added attention to length and time to complete the questionnaire in hopes of improving the response rate.

A second limitation relates to the original SERVQUAL instrument itself. Based on these findings it is difficult to surmise if the five dimensions provided unique discernment into the individual dimension. Student responses were overwhelmingly positive across all five dimensions. It is unclear if students made any distinction between each of these dimensions as the responses were skewed. However, this issue has also been an argument presented by other scholars. The contention revolves around the lack of difference between the five dimensions and suggesting that the inter-dimensional overlap may fail to produce independent information (Buttle, 1996). Further, the disconfirmation

measurement (gap score) does not provide information specific to individual expectations versus perceptions.

The gap score can assist in gaining understanding as to whether the perception or expectation exceeds the other but does not descriptively identify some items as more important than others. Also, if a zero gap score occurs, there is no indication of satisfaction in either direction. For example, it could be very high or very low. The question of dimension distinction and gap score requires additional research related to its use for determining student satisfaction.

Third, the measurement of persistence and graduation only represents what the individual believes to be the case at this point and time, and was not reflective of actual college completion. Student intentions may change at some other point, and/or their performance may not align with their intentions. This study was not designed to follow the student to reveal these changes.

Closing Remarks

Participants in this study, attend Mile High University, a small for-profit college located in the Rocky Mountain region that provides coursework using exclusively on-line methods. For-profit colleges have been a part of the higher education system for over 300 years (Kinser, 2006) and they have grown in popularity within the past three decades resulting in a significant increase in enrollment (Lynch, Engle, & Cruz, 2010). However, government officials, scholars, and educators continue to scrutinize for-profit colleges poor retention and graduation rates (Beaver, 2009; Belfield, 2012; Honick, 1992; Sridharan, 2012). Recently the for-profit college industry has been under investigation by the U.S. Senate committee on Health, Education, Labor and Pensions and has received

considerable attention from the Department of Education (DoEd) (U.S. Senate HELP committee, 2012). DoEd's interest has translated into several federal regulations designed to hold this industry more accountable to ensure student success.

For the purposes of this study, student success was translated into college completion. It is not only important to attend college, but it is also necessary to persist to graduation to yield any advantage for future job opportunities and financial benefits (Habley et al., 2012; Tinto, 1993; 2012). Many factors influence student departure, yet scholars such as Tinto (2012) would suggest that departure decisions may be the result of institutional actions, practices and policies that are misaligned for supporting persistence and retention of students in the college environment. As such, the two theoretical frameworks drawn upon to guide this study were Tinto's Interactionalist Theory of College Persistence and Parasuraman, Zeithaml, and Berry's Service Quality paradigm. Tinto (1993) argues that adjustment, difficulty, incongruence, and isolation influence the student's level of integration. These factors identify the interaction between the student and the university environment. Using this theory highlighted a sense of the complexity revolving around student's decision to persist or depart as well as the role of the institution in this process. The quality of the service the University provides is integral to whether the service offers a benefit to the college environment and further influences students' social and academic integration within the community (Tinto, 1993). This concept of determining the quality of service led to the service quality paradigm. Service quality is a gap model approach based the discrepancies between expectation and perception formed by the individual (Parasuraman et al., 1985). In an effort to understand

how students perceive the services provided to support student success this study utilized the SERVQUAL instrument.

This instrument is designed to seek students' expectations and perceptions of the quality of service provided by Mile High University along five distinct dimensions (tangibles, reliability, responsiveness, assurance, and empathy). Each dimension aligns with a different aspect of service to measure Mile High University's performance. This method supported the purpose of this study that examined the relationship between students' expectations and perceptions of service quality at Mile High University and those same students' intent to persist and graduate from their college.

Of the four dimensions examined (tangibles, reliability, responsiveness, and empathy), reliability offered predictive capability for intent to continue enrollment as well as intent to graduate. Students appeared to experience higher quality of dependable service than they expected and based on that experience were more likely to continue their enrollment until graduation. The remaining three dimensions (tangibles, responsiveness, and empathy), although not predictive of intent to continue enrollment or graduate, did denote positive reflections of their experiences. Students were satisfied with the appearance of brochures, websites, and educational materials and perceived a willingness of Mile High University faculty and staff to provide prompt assistance. These students indicated, on the other hand, that they expected a more empathetic environment that shows care and individualized attention to students than they perceived as receiving.

There is little argument that many colleges and universities are seeking practical applications to improve student persistence leading to graduation, but the question is how

to implement mechanisms that are effective (Tinto, 2012). The culmination of these student responses offers insights that can lead to more deliberate institutional actions that encourage and support student satisfaction and student persistence.

Why students depart institutions is a troubling issue for higher education as a whole. There is a growing awareness that higher education is the bridge to increase employment opportunities, as well as income and overall quality of life (Hentschke et al., 2010). However, more than three-fourths of the students in attendance at for-profit colleges exit prior to completing a degree (Lynch et al., 2010; U.S. Senate HELP Committee, 2012). Consequently, continued attention is needed regarding the disparity in completion rates.

The predictions and outcomes of this study may, however, be challenged by the contrast between participants' overwhelming high intent to persist and intent to graduate and the actual graduation rate at Mile High University. Follow-up studies using quantitative or qualitative methods may guide Mile High University more fully in understanding this misalignment. Nevertheless, taking steps to enhance integration and satisfaction are key components to staging retention initiatives that encourage student success.

These responses to the SERVQUAL instrument provided awareness of student needs and desires that can assist Mile High University in shaping its retention policies and programs. However, it should be noted that as of March 31, 2015, Mile High University announced its impending closure. This announcement was unforeseen and occurred prior to sharing the results of this study with officials of Mile High University. It is unfortunate news for this institution and the students who attend. Nonetheless, the

findings, recommendations and implications of this study are useful for other for-profit institutions. The next step for any proprietary college is to define a course of action that includes seeking additional student feedback and design retention initiatives based on what actions matter most (Tinto, 2012). This process requires not only pooling information to guide institutions, but also time to see if these initiatives impact student decisions to persist or depart.

REFERENCES

- Abdullah, F. (2006). Measuring service quality in higher education: Three instruments compared. *International Journal of Research & Method in Education*, 29(1), 71-89.
- Acock, A. C. (2005). Working with missing values. *Journal of Marriage and Family*, 67(4), 1012-1028.
- Allen, M.J. & Yen, W. M. (1979). *Introduction to measurement theory*. Monterey, CA: Brooks Cole.
- Allison, P. D. (1999). Multiple imputation for missing data: A cautionary tale. *Philadelphia, PA: University of Pennsylvania*. Retrieved January 8, 2015, from http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCUQFjAA&url=http%3A%2F%2Fwww.ssc.upenn.edu%2F~allison%2FMultInt99.pdf&ei=k7bKVOe0KcP9yQTF1IHYCA&usg=AFQjCNF1Rg6SbFPwLv5n3jYIVNA_iTMPCg&sig2=N2dRiGV0psCCAq9JPh5cMQ&bvm=bv.84607526,d.aWw
- Anonymous survey link. (2014). Retrieved April 1, 2014, from <http://www.qualtrics.com/university/researchsuite/distributing/basic-distribution/anonymous-survey-link/>
- Arambewela, R., & Hall, J. (2006, July). A comparative analysis of international education satisfaction using Servqual. *Journal of Services Research*, 6, 141-163.

- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of college student personnel*, 25(4), 297-308.
- Astin, A. (1993). *What matters in college? Four critical years revisited*. San Francisco: Jossey-Bass.
- Astin, A., & Oseguera, L. (2005). Pre-college and institutional influences on degree attainment. In A. Seidman (Ed.), *College student retention: Formula for student success*, (pp. 245-276). American Council on Higher Education/Praeger Series on Higher Education.
- Aycock, G. L. (2003). *Support needed by adult learners to accomplish educational goals in higher education* (Doctoral dissertation). Retrieved from <http://search.proquest.com.ezproxy.osu-tulsa.okstate.edu/pqdtft/docview/305313205/5D4309985FFA4D78PQ/1?accountid=3320>
- Bailey, T., Badway, N., & Gumport, P. (2001). *For-profit higher education and community colleges*. Paper prepared for National Center for Postsecondary Improvement. Stanford, CA: Stanford University. Retrieved from <http://www.stanford.edu/group/ncpi/documents/pdfs/forprofitandcc.pdf>
- Balfanz, R. (2009). Can the American high school become an avenue of advancement for all? *The Future of Children*, 19(1), 17-38.
- Bean, J. P. (1980). Dropouts and turnover: The synthesis and test of a causal model of student attrition. *Research in Higher Education*, 12(2), 155-187.

- Bean, J. P. (1985). Interaction effects based on class level in an explanatory model of college student dropout syndrome. *American Educational Research Journal*, 22(1), 35-64.
- Beaver, W. (2009). For-profit higher education: A social and historical analysis. *Sociological Viewpoints*, 25, 53-73.
- Belfield, C. (2013). Student loans and repayment rates. The role of for-profit colleges. *Research In Higher Education*, 54(1), 1-29.
- Berger, J. B., & Lyon, S., C. (2005). Past to present: A historical look at retention. In A. Seidman (Ed.), *College student retention: Formula for student success*. (pp. 1-30). American Council on Higher Education/Praeger Series on Higher Education.
- Blumenstyk, G. (2005, January 7). For-profit education: Online courses fuel growth. *The Chronicle of Higher Education*, Retrieved from <http://chronicle.com/article/ForProfit-Education-Online/16607>
- Boulding, W. K., Staeling, A. R. & Zeithaml, V. A. (1993). A dynamic process model of service quality: from expectation to behavioral intentions. *Journal of Marketing Research*, 30(1), 7-27.
- Bowen, W. G., Chingos, M. M., & McPherson, M. S. (2009). *Crossing the finish line: Completing college at America's public universities*. Princeton, N.J.: Princeton University Press.
- Braxton, J. M. (2000). *Reworking the student departure puzzle*. Nashville, TN: Vanderbilt University Press.
- Braxton, J. M., Hirschy, A. S., & McClendon, S. A. (2004). *Understanding and reducing college student departure*, 30(3) 1-105. San Francisco, CA: Jossey-Bass.

- Braxton, J. M., & Hirschy, A. S. (2005). Theoretical developments in the study of college student departure. In A. Seidman (Ed.), *College student retention: Formula for student success* (pp. 61-87). American Council on Higher Education/Praeger Series on Higher Education.
- Braxton, J. M., & Lee, S. D. (2005). Toward reliable knowledge about college student departure. In A. Seidman (Ed.), *College student retention: Formula for student success* (pp. 107-127). American Council on Higher Education/Praeger Series on Higher Education.
- Bryant, J. L. (2006). Assessing expectations and perceptions of the campus experience: The Noel-Levitz student satisfaction inventory. *New Directions for Community Colleges*, 134, 25-35.
- Buttle, F. (1996). SERVQUAL: Review, critique, research agenda. *European Journal of Marketing*, 30(1), 8-32.
- Cabrera, A. F., Nora, A., & Castaneda, M. B. (1993). College persistence: Structural equations modeling test of an integrated model of student retention. *Journal of Higher Education*, 64(2), 123-139.
- Canel, C., & Fletcher, E. A. A. (2001). An analysis of service quality at a student health center. *International Journal of Health Care Quality Assurance*, 14(6), 260-267.
- Carrillat, F. A., Jaramillo, F., & Mulki, J. P. (2007). The validity of the SERVQUAL and SERVPERF scales: A meta-analytic view of 17 years of research across five continents. *International Journal of Service Industry Management*, 18(5), 472-490.

- Chung, A. S. (2012). Choice of for-profit college. *Economics of Education Review*, 31(6), 1084-1101.
- Clemes, M. D., Ozanne, L. K., & Tram, L. (2001). An examination of students' perceptions of service quality in higher education, *Journal of Marketing for Higher Education*, 10(3), 1-20.
- Clewes, D. (2003). A student-centered conceptual model of service quality in higher education. *Quality in Higher Education*, 9(1), 69-85.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Cronin, J. J., Jr. and Taylor, S. A. (1992). Measuring service quality: A reexamination and extension. *Journal of Marketing*, 56(3), 55-68.
- Croninger, R. G., & Douglas, K. M. (2005). Missing data and institutional research. *New Directions For Institutional Research*, 2005(127), 33-49.
- Davidson, W. B., Beck, H. P., & Milligan, M. (2009). The college persistence questionnaire: Development and validation of an instrument that predicts student attrition. *Journal of College Student Development*, 50(4), 373-390.
- Deming, D. J., Goldin, C., & Katz, L. F. (2011). *The for-profit postsecondary school sector: Nimble critters or agile predators?* Working paper for the National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w17710>
- DeWitz, J. S., Woolsey, L. M., & Walsh, B. W. (2009). College student retention: An exploration of the relationship between self-efficacy beliefs and purpose in life among college students. *Journal of College Student Development*, 50(1), 19-34.

- Dillman, D. A. (1991). The design and administration of mail surveys. *Annual review of Sociology*, 17, 225-249.
- Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method* (Vol. 2). New York, NY: John Wiley.
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2009). *Internet, mail, and mixed mode surveys: The tailored design method* (3rd ed). Hoboken, NJ: John Wiley.
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail, and mixed-mode surveys: The tailored design method* (4th ed.). Hoboken, NJ: John Wiley & Sons.
- Dillman, D. A., Tortora, R. D., & Bowker, D. (2001). Principles for constructing web surveys. Proceedings at the Annual Meeting of the Statistical Association, Dallas, Texas.
- Dolence, M. G. (1998). Strategic enrollment management. In C. C. Swann, & S. E. Henderson (Eds.), *Handbook for the college admissions profession* (pp. 71-91). Washington, DC: American Association of College Registrars and Admissions.
- Douglass, J. A. (2012). The Rise of the For-Profit Sector in US Higher Education and the Brazilian Effect. *European Journal of Education*, 47(2), 242-259.
- Eagle, L., & Brennan, R. (2007). Are students customers? TQM and marketing perspectives. *Quality Assurance in Education*, 15(1), 44-60.
- Elkins, S. A., Braxton, J. M., & James, G. W. (2000). Tinto's separation stage and its influence on first-semester college student persistence. *Research in Higher Education*, 41(2), 251-268.

- Field, A. (2000). *Discovering statistics using SPSS for windows*. Thousand Oaks, CA: Sage Publications.
- Field, A. (2009). *Discovering statistics using SPSS*. Thousand Oaks, CA: Sage Publications.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. Thousand Oaks, CA: Sage Publications.
- Floyd, C. (2007, Winter). Know your competitor: Impact of for-profit colleges on the higher education landscape. *New Directions For Higher Education*, 140, 121-129.
- Fried, V. H., & Hill, A. D. (2009). The future of for-profit higher education. *The Journal of Private Equity*, 12(4), 35-43.
- Gay, L. R., Mills, G. E., & Airasian, P. (2009). *Educational research: Competencies for analysis and applications (9th ed.)*. Upper Saddle River, NJ: Person Education, Inc.
- Gilbreath, B., Kim, T., & Nichols, B. (2011). Person-environment fit and its effects on university students: A response surface methodology study. *Research in Higher Education*, 52(1), 47-62.
- Grönroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing*, 18(4), 36-44.
- Habley, W. R., Bloom, J. L., Robbins, S. B., & Robbins, S. (2012). *Increasing persistence: Research-based strategies for college student success*. San Francisco, CA: John Wiley & Sons.

- Harper, S. R., & Quaye, S. J. (2009). Beyond sameness, with engagement and outcomes for all. In Harper, S. R., & Quaye, S. J. (Eds.), *Student engagement in higher education. Theoretical perspective and practical approaches for diverse population* (pp. 1-15). New York, NY: Routledge.
- Hentschke, G. C., Lechuga, V. M., & Tierney, W. G. (Eds.). (2010). *For-profit colleges and universities: Their markets, regulation, performance, and place in higher education*. Sterling, VA: Stylus Publishing, LLC.
- Hill, F. M. (1995). Managing service quality in higher education: The role of the student as primary consumer. *Quality Assurance in Education*, 3(3), 10–21.
- Hite, K. (2011). “Qualtrics security” (White paper). Qualtrics, LLC. Retrieved from www.qualtrics.com/docs/QualtricsSecurityWhitepaper.pdf
- Ho, R. (2006). *Handbook of univariate and multivariate data analysis and interpretation with SPSS*. CRC Press.
- Holmberg, B. (1985). *The feasibility of a theory of teaching for distance education and a proposed theory*. ZIFF Papiere 60. Hagen: Fern Universitat, ZIFF.
- Honick, C. (1992). *Chronic scandal in the American proprietary school sector: A historical perspective on why treatments have not provided a cure*. Retrieved from <http://files.eric.ed.gov/fulltext/ED354368.pdf>
- Howell, D. C. (2007). The treatment of missing data. In Outwaite, W. & Turner, S. P. *The SAGE handbook of social science methodology*, (pp 208-224). Thousand Oaks, CA: Sage Publications.
- Howell, J. S. (2011). What influences students' need for remediation in college?: Evidence from California. *The Journal of Higher Education*, 82(3), 292-318.

- Iloh, C., & Tierney, W. G. (2013). A comparison of for-profit and community colleges' admissions practices. *College and University*, 88(4), 2-12.
- Kalsbeek, D. H. (2013). Framing retention for institutional improvement: A 4 Ps framework. *New Directions for Higher Education*, 2013(161), 5-14.
- Kelly, K. F. (2001). *Meeting needs and making profits: The rise of for-profit degree-granting institutions*. Denver, CO: Education Commission of the States.
- Khodayari, F., & Khodayari, B. (2011). Service Quality in Higher Education. *Interdisciplinary Journal of Research in Business*, 1(9), 38-46.
- Kingkade, T. (2012, September 28). For-profit colleges collect \$32 billion, 3 lose federal aid eligibility for failing 90/10 rule. *Huffington Post*. Retrieved from http://www.huffingtonpost.com/2012/09/27/for-profit-colleges-lose-federal-aid-90-10_n_1920190.html
- Kinser, K. (2005). A profile of regionally accredited for-profit institutions of higher education. In B. Pusser (Ed.), *Arenas of entrepreneurship: Where nonprofit and for-profit institutions compete* (pp. 69-84). San Francisco, CA: Jossey-Bass.
- Kinser, K. (2006). *From main street to wall street: For-profit higher education*. *ASHE-ERIC Higher Education Report*, 31(3), 1-108.
- Kohl, K. J. (2010). Coping with change and fostering innovation: An agenda for professional and continuing education. *Continuing Higher Education Review*, 74, 9-22.
- Kuh, G. D. (2003). What we're learning about student engagement from NSSE: Benchmarks for effective educational practices. *Change: The Magazine of Higher Learning*, 35(2), 24-32.

- Kuh, G. D. (2009). What student affairs professionals need to know about student engagement. *Journal of College Student Development, 50*(6), 683-706.
- Kuh, G. D., Gonyea, R. M., & Williams, J. M. (2005). What students expect from college and what they get. In T. Miller, B. Bender, & J. Schuh, (Eds.), *Promoting reasonable expectations: Aligning student and institutional thinking about the college experience*. San Francisco, CA: Jossey-Bass.
- Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2007). Piecing together the student success puzzle: Research, propositions, and recommendations. *ASHE Higher Education Report, 32*(5), 1-182. San Francisco, CA: Jossey-Bass.
- Kutz, G. D. (2010). For-Profit Colleges: Undercover Testing Finds Colleges Encouraged Fraud and Engaged in Deceptive and Questionable Marketing Practices. Testimony before the Committee on Health, Education, Labor, and Pensions, U.S. Senate. GAO-10-948T. *U.S. Government Accountability Office*.
- Laird, T. F. N., & Cruce, T. M. (2009). Individual and environmental effects of part-time enrollment status on student-faculty interaction and self-reported gains. *Journal of Higher Education, 80*(3), 290-314.
- Lee, H., Lee, Y., & Yoo, D. (2000). The determinants of perceived service quality and its relationship with satisfaction. *Journal of Services Marketing, 14*(3), 217-231.
- Leppel, K. (2002). Similarities and differences in the college persistence of men and women. *The Review of Higher Education, 25*(4), 433-450.

- Levitz, R. S., Noel, L., & Richter, B. J. (1999, Winter). Strategic moves for retention success. *New Directions for Higher Education*, 108, 31-49.
- <http://www.nytimes.com/2010/10/01/education/01education.html>
- Lewis, R. C., & Booms, B. H. (1983). The marketing aspects of service quality. In L. Berry, G. Shostack, & G. Upah (Eds.), *Emerging perspectives on services marketing* (pp. 99-107). Chicago, IL, American Marketing.
- Litwin, M. S. (1995). *How to measure survey reliability and validity (Vol. 7)*. Thousand Oaks, CA: Sage Publications.
- Liu, E., & Liu, R. (1999). An application of Tinto's model at a commuter campus. *Education*, 119(3), 537-541.
- Lomax, R. G., & Hahs-Vaughn, D. L. (2013). *An introduction to statistical concepts*. New York, NY: Routledge.
- Lynch, M., Engle, J., & Cruz, J. L. (2010). Subprime Opportunity: The Unfulfilled Promise of For-Profit Colleges and Universities. *Education Trust*.
- MacQueen, G. (2012). Closing doors: The gainful employment rule as over-regulation of for-profit higher education that will restrict access to higher education for America's poor. *Georgetown Journal on Poverty Law & Policy*, 19(2), 309-330.
- Mark, E. (2013). Student satisfaction and the customer focus in higher education. *Journal of Higher Education Policy and Management*, 35(1), 2-10.
- Melguizo, T. (2011). A review of the theories developed to describe the process of college persistence and attainment. In a J. C. Smart, & M. B. Paulsen (Eds.), *Higher education: Handbook of theory and research* (pp. 395-424). London, England: Springer.

- Meyers, L. S., Gamst, G., & Guarino, A. J. (2006). *Applied multivariate research: Design and interpretation*. Thousand Oaks, CA: Sage Publications.
- Morey, A. I. (2004). Globalization and the emergence of for-profit higher education. *Higher Education, 48*(1), 131-150.
- Muijs, D. (2004). *Doing quantitative research in education*. Thousand Oaks, CA: Sage Publications.
- Murtaugh, P. A., Burns, L. D., & Schuster, J. (1999). Predicting the retention of university students. *Research in Higher Education, 40*(3), 355-371.
- National Center for Educational Statistics. (n.d.). *College Navigator*. Retrieved February 1, 2015 from <http://nces.ed.gov/collegenavigator/>
- Nora, A., Barlow, L., & Crisp, G. (2005). Student persistence and degree attainment beyond the first year in college. In A. Seidman (Ed.), *College student retention: Formula for success*, (pp. 129-153). American Council on Higher Education/Praeger Series on Higher Education.
- Nunnally, J. C. Bernstein (1994). *Psychometric theory* (3rd ed). NY: McGraw-Hill.
- Pallant, J. (2007). *SPSS survival guide: A step-by-step guide to data analysis using SPSS version 15*. Maidenhead: Open University Press.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing, 49*(4), 41–50.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing, 64*(1), 12–40.

- Parasuraman, A., Zeithaml, V. A. , & Berry, L. L. (1991, Winter). Refinement and reassessment of the SERVQUAL scale. *Journal of Retailing*, 67(4), 420-450.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1994). A reassessment of expectations as a comparative standard in measuring service quality: Implications for future research. *Journal of Marketing*, 58(1), 111-24.
- Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of research*. San Francisco, CA: Jossey-Bass.
- Pascarella, E. T., Terenzini, P. T., & Wolfle, L. M. (1986). Orientation to college and freshman year persistence/withdrawal decisions. *The Journal of Higher Education*, 57(2), 155-175.
- Parks, S.C. (1997). *A study of the importance of customer satisfaction on students' intent to remain in a distance education degree program* (Doctoral dissertation). Retrieved from <http://search.proquest.com.ezproxy.osu-tulsa.okstate.edu/pqdtft/docview/304423495/fulltextPDF/517B9EEC7BBE4D63PQ/1?accountid=3320>
- Potts, M. (2005). The consumerist subversion of education. *Academic Questions*, 18(3), 54-64.
- Obama, B. H. (2009). State of the Union Address transcript. Retrieved from http://www.whitehouse.gov/the_press_office/Remarks-of-President-Barack-Obama-Address-to-Joint-Session-of-Congress
- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(4), 460-469.

- Onwuegbuzie, A. J., Johnson, R. B., & Collins, K. M. (2011). Assessing legitimation in mixed research: a new framework. *Quality & Quantity*, 45(6), 1253-1271.
- Ornstein, M. (2013). *A companion to survey research*. Thousand Oaks, CA: Sage Publications.
- Osborne, J & Waters, E. (2002). Four assumptions of multiple regression that researchers should always test. *Practical Assessment, Research & Evaluation*, 8(2). 1-9.
- Ransdell, S. (2001). Predicting college success: The importance of ability and non-cognitive variables. *International Journal of Educational Research*, 35(4), 357-364.
- Ramseook-Munhurrun, P., Lukea-Bhiwajee, S. D., & Naidoo, P. (2010). Service quality in the public service. *International Journal of Management & Marketing Research*, 3(1), 37-50.
- Rubin, D. B. (2004). *Multiple imputation for nonresponse in surveys*. Hoboken, New Jersey: John Wiley & Sons.
- Ruch, R. S. (2001). *Higher ed, inc.: The rise of the for-profit university*. Baltimore, MD: John Hopkins University Press.
- Sahney, S., Banwet, D. K., & Karunes, S. (2004). Conceptualizing total quality management in higher education. *The TQM magazine*, 16(2), 145-159.
- Schilling, J. (2013). What's money got to do with it? The appeal of the for-profit education model. *Community College Journal of Research and Practice*, 37(3), 153-159.
- Shank, P., & Sitze, A. (2004). *Making sense of online learning: A guide for beginners and the truly skeptical*. John Wiley & Sons.

- Shank, M. D., Walker, M., & Hayes, T. (1995). Understanding professional service expectations: Do we know what our students expect in a quality education? *Journal of Professional Services Marketing, 13*(1), 71.
- Shireman, R., Baum, S., & Steele, P. (2012). How people think about college prices, quality, and financial aid. *Change: The Magazine of Higher Learning, 44*(5), 43-48.
- Sissel, P. A., Hansman, C. A., & Kasworm, C. E. (2001). The politics of neglect: Adult learners in higher education. *New Directions for Adult and Continuing Education, 91*, 17-27.
- Sridharan, V. (2012). The debt crisis in for-profit education: How the industry has used federal dollars to send thousands of students into default. *Georgetown Journal on Poverty Law & Policy, 19*(2), 331-350.
- Strange, C. C., & Banning, J. H. (2001). *Educating by design: Creating campus learning environments that work*. San Francisco, CA: Jossey-Bass.
- Sterner, W. R. (2011). What Is Missing in Counseling Research? Reporting Missing Data. *Journal of Counseling & Development, 89*(1), 56-62.
- Sweet, R. (1986). Student dropout in distance education: An application of Tinto's model. *Distance education, 7*(2), 201-213.
- Teas, R. K. (1993). Expectations, performance evaluation, and consumers' perceptions of quality. *Journal of Marketing, 57*(4), 18-34.
- Teas, R. K. (1994). Expectations as a comparison standard in measuring service quality: An assessment of a reassessment. *The Journal of Marketing, 58*, 132-139.

- Tan, D. L. (1986). The assessment of quality in higher education: A critical review of the literature and research. *Research in Higher Education, 24*(3), 223-265.
- Terenzini, P. T., & Pascarella, E. T. (1977). Voluntary freshman attrition and patterns of social and academic integration in a university: A test of a conceptual model. *Research in Higher Education, 6*(1), 25-43.
- The White House Office of the Press Secretary (2013). Fact sheet on the President's plan to make college more affordable: A better bargain for the middle class [Press Release]. Retrieved from [http://www.whitehouse.gov/the-press-office/2013/08/22/fact-sheet-president-s-plan-make-college-more-affordable-better-bargain-](http://www.whitehouse.gov/the-press-office/2013/08/22/fact-sheet-president-s-plan-make-college-more-affordable-better-bargain)
- Tierney, W. G., & Hentschke, G. C. (2007). *New players, different game: Understanding the rise of for-profit colleges and universities*. Baltimore, Maryland: The John Hopkins University Press.
- Tierney, W. G. (2008). The impact of culture on organizational decision-making: Theory and practice in higher education. Sterling, VA: Stylus Publishing, LLC.
- Tierney, W. G. (2011). Too big to fail: The role of for-profit colleges and universities in American higher education. *Change: The Magazine of Higher Learning, 43*(6), 27-32.
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45*(1), 89-125.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed). Chicago, IL: The University of Chicago Press.

- Tinto, V. (2006-2007). Research and practice of student retention: What next? *Journal of College Student Retention: Research, Theory & Practice*, 8(1), 1-19.
- Tinto, V. (2009). How to help students stay and succeed. *Chronicle of Higher Education*, 55(22), A33. Retrieved from <https://chronicle.com/article/How-to-Help-Students-Stay-and/30691/>
- Tinto, V. (2012). *Completing college: Rethinking institutional action*. Chicago, IL: The University of Chicago Press.
- Titus, M. A. (2004). An examination of the influence of institutional context on student persistence at 4-year colleges and universities: A multilevel approach *Research in Higher Education*, 45(7), 673-699.
- United States Senate Health, Education, Labor, and Pensions Committee (2012, July 30). *For profit higher education: The failure to safeguard the federal investment and ensure student success*. Retrieved <http://www.harkin.senate.gov/documents/pdf/5012d1c5b817d.pdf>
- University Leadership Council. (2009). *Hardwiring student success building discipline for retention and timely graduation*. Washington, D.C.: The Advisory Board Company.
- Upcraft, M. L., Gardner, J. N., & Barefoot, B. O. (2005). *Challenging and supporting the first-year student: A handbook for improving the first year of college*. San Francisco: Jossey-Bass.
- Urman, L. E. (2007). What's in it for us? The senior project in the evolution of a for-profit university. *American Educational History Journal*, 34(1), 395-408.

- Wayman, J. C. (2003, April). *Multiple imputation for missing data: What is it and how can I use it*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
- Wicks, A. M., & Roethlein, C. J. (2009). A satisfaction based definition of quality. *Journal of Business and Economic Studies*, 15(1), 82–111.
- Wolf-Wendel, L. & Ward, K. & Kinzie, J. (2009). A Tangled Web of Terms: The overlap and unique contribution of involvement, engagement, and integration to understanding college student success. *Journal of College Student Development* 50(4), 407-428.
- Woo, K. S., & Ennew, C. T. (2005). Measuring business-to-business professional service quality and its consequences. *Journal of Business Research*, 58(9), 1178-1185.
- Wood, M. J. & Brink, P. J. (1998). Correlational Designs. In M. J. Wood (Ed.), *Advanced design in nursing research*. Thousand Oaks, CA: Sage Publications.
- Yeşilada, F., & Direktör, E. (2010). Health care service quality: A comparison of public and private hospitals. *African Journal of Business Management*, 4(6), 962-971.
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. *The Journal of Marketing*, 52, 2-22.
- Zeithaml, V. A., Parasuraman, A., & Berry, L. L. (1990). *Delivering quality service: Balancing customer perceptions and expectations*. New York, New York: The Free Press.

APPENDIX A

IRB Approval

Oklahoma State University Institutional Review Board

Date: Monday, October 06, 2014
IRB Application No ED14144
Proposal Title: Student's Expectations and Perceptions of Service Quality at For-Profit College
Reviewed and Processed as: Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 10/5/2017

Principal Investigator(s):
Melissa France Tami Moore
2821 E 8th St 2439 Main Hall
Tulsa, OK 74104 Tulsa, OK 74106

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

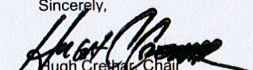
The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI advisor, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms
2. Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of the research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Dawnett Watkins 219 Cordell North (phone: 405-744-5700, dawnett.watkins@okstate.edu).

Sincerely,


Hugh Crevelle, Chair
Institutional Review Board

APPENDIX B

Survey

Qualtrics Survey Software

Demographics Part 1

Oklahoma State University supports the practice of protection for human subjects participating in research. The following information is provided for you to decide if you wish to participate in the present study. The purpose of this research study is to examine expectations and perceptions of undergraduate students attending [REDACTED]. You are being asked to participate in this research study because of your experience as an undergraduate student. You must be 18 years or older to participate. Participants are asked to complete an online survey that will take approximately 20 minutes to complete. There are no known risks associated with this project that are greater than those ordinarily encountered in daily life. The information obtained from this study will help in better understanding students' perceptions of effective clinical educator behaviors and in improving students' clinical experiences.

The records of this study will be kept private. Any written results will discuss group findings and will not include information that will identify you as an individual. Research records will be stored securely and only researchers and individuals responsible for research oversight will have access to the records. It is possible that the consent process and data collection will be observed by research oversight staff responsible for safeguarding the rights and well being of people who participate in research.

Your participation is solicited, although strictly voluntary. You will not receive monetary or other compensation for your participation. Participation is completely voluntary and there will be no penalty or loss of benefits if you choose to not participate in this research study or to withdraw from it.

Completion of the survey indicates your understanding of the project and your willingness to voluntarily participate. By completing the survey you are also confirming that you are age 18 or older.

Please print this page for your records

PARTICIPANT INFORMATION INFORMED CONSENT DOCUMENT

Investigator(s): Melissa France, Doctoral Candidate Oklahoma State University

Purpose: The purpose of this research study is to examine expectations and perceptions of Undergraduate Student attending [REDACTED]. You are being asked to participate in this research study because of your

1 of 20



experience as an undergraduate student. You must be 18 years or older to participate.

What to Expect: This research study is administered online. Participation in this research will involve completion of one questionnaire. The questionnaire will ask for basic demographic information, questions related to your expectation and actual experiences as an undergraduate student at [REDACTED]. You may skip any questions that you do not wish to answer. You are asked to complete the questionnaire only once. It should take you about 20 minutes to complete.

Risks: There are no known risks associated with this project that are greater than those ordinarily encountered in daily life. Participants who experience discomfort in responding to research questions may withdraw at any time. Withdraw or failure to submit the survey will result in deletion of data for that participant without analysis.

Benefits: There is no direct benefit to respondents. The indirect benefits to students may include better understanding expectations and actual experiences of students attending [REDACTED] and the relation to continued enrollment and ultimately completion of your program of study.

Compensation: Your participation is solicited, although strictly voluntary. You will not receive monetary or other compensation for your participation. Participation is completely voluntary and there will be no penalty or loss of benefits if you choose to not participate in this research study or to withdraw from it.

Confidentiality: Questionnaires and record forms will have identification numbers, rather than names, on them. You will not be identified individually; we will look at the collective total of all respondents as a whole. Research records will be stored securely and data will only be accessible to the researchers and individuals responsible for research oversight. The information derived from this study may be used for presentation or publication to broaden knowledge within the educational community of understanding expectations and perceptions of students in attendance of for-profit college that may influence retention. There are no foreseeable risks for maintaining confidentiality and anonymity.

Contacts: You may contact the Primary Investigator at the following addresses and phone numbers, should you desire to discuss your participation in the study and/or request information about the results of the study:

Mel France



Dr. Tami Moore, Associate Professor of Higher Education



If you have questions about your rights as a research volunteer, you may contact the Oklahoma State University Institutional Review Board (IRB) Chair, Dr. Hugh Crethar at 219 Cordell North, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu.

Participant Rights: The preceding information was provided to you to allow you to decide if you wish to participate in the present study. You should be aware that even if you decide to participate, you are free to withdraw at any time without penalty.

Signature: Completion of the survey indicates your understanding of the project and your willingness to voluntarily participate. By completing the survey you are also confirming that you are age 18 or older.

Please print this page for your records.





Section I- DEMOGRAPHIC DATA

DIRECTIONS: Please complete the following information about yourself.

Age?

- Under 24
- 25 to 35
- 36 to 45
- 46 or older

What is your racial/ethnic background? Select as many as apply?

- African American/Black
- Asian American & Pacific Islander
- Hispanic/Latino
- Middle Eastern
- Native American
- White
- Other

With which gender do you identify?

- Male
- Female

Select your enrollment status?

- Part-time student
- Full-time Student





Section II- PERFORMANCE OF SERVICE

Section II- PERFORMANCE OF SERVICE

DIRECTIONS: Listed below are five service features being offered by the [redacted]. Please indicate your opinion about the degree of quality of each feature offered by [redacted] by selecting a number on the scale following each statement.

The ability of [redacted] to perform the promised services dependably and accurately (Reliability).

Poor	2	3	4	5	6	Excellent
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The willingness of [redacted] faculty and staff to help students and provide prompt service (Responsiveness).

Poor	2	3	4	5	6	Excellent
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The knowledge and courtesy of [redacted] faculty and staff and their ability to convey trust and confidence (Assurance).

Poor	2	3	4	5	6	Excellent
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The caring, individualized attention [redacted] provides to its students (Empathy).

Poor	2	3	4	5	6	Excellent
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>





Section II- PERFORMANCE OF SERVICE

Section II- PERFORMANCE OF SERVICE

DIRECTIONS: Listed below are five service features being offered by the [redacted]. Please indicate your opinion about the degree of quality of each feature offered by [redacted] by selecting a number on the scale following each statement.

The ability of [redacted] to perform the promised services dependably and accurately (Reliability).

Poor	2	3	4	5	6	Excellent
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The willingness of [redacted] faculty and staff to help students and provide prompt service (Responsiveness).

Poor	2	3	4	5	6	Excellent
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The knowledge and courtesy of [redacted] faculty and staff and their ability to convey trust and confidence (Assurance).

Poor	2	3	4	5	6	Excellent
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The caring, individualized attention [redacted] provides to its students (Empathy).

Poor	2	3	4	5	6	Excellent
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>





The overall appearance of [redacted] technology, educational materials, curriculum, faculty, staff and supporting materials (Tangibles).

Poor 2 3 4 5 6 Excellent

Listed below are the five features pertaining to college/universities and the services they offer. Please allocate 100 points among the five features according to how important it is to you as a student.

- The appearance of college/universities technology, educational materials, faculty, staff and supporting materials.
College/Universities ability to perform the promised services dependably and accurately.
The willingness of college/universities faculty and staff to help students and provide prompt service.
The knowledge and courtesy of college/university faculty and staff and their ability to convey trust and confidence
The caring individualized attention college/university faculty and staff provides its students.

Please make sure the points add up to 100.

Section III- OVERALL PERFORMANCE

Section III- OVERALL PERFORMANCE

DIRECTIONS: Please indicate the number that best describes your opinion.

Overall, how satisfied are you with [redacted]

Very Unsatisfied Unsatisfied Somewhat Unsatisfied Neutral Somewhat Satisfied Satisfied Very Satisfied



[REDACTED]

Is it your intention to enroll in courses at [REDACTED] in the following semester?

Very Unlikely Unlikely Somewhat Unlikely Undecided Somewhat Likely Likely Very Likely

Based on your response to previous question would you share your reason(s) for continuing, not continuing or undecided about enrolling in courses next semester.

Do you intend to complete your degree at [REDACTED]

Very Unlikely Unlikely Somewhat Unlikely Undecided Somewhat Likely Likely Very Likely

Would you recommend [REDACTED] to others?

Very Unlikely Unlikely Somewhat Unlikely Undecided Somewhat Likely Likely Very Likely

How does [REDACTED] tuition compare to what you are willing to pay?

Very Dissatisfied Dissatisfied Somewhat Dissatisfied Neutral Somewhat Satisfied Satisfied Very Satisfied

[REDACTED]



Compared to the tuition you pay, how is the value you are getting from [redacted]

Very Dissatisfied Dissatisfied Somewhat Dissatisfied Neutral Somewhat Satisfied Satisfied Very Satisfied

How do you rate the overall performance of [redacted] ?

Very Dissatisfied Dissatisfied Somewhat Dissatisfied Neutral Somewhat Satisfied Satisfied Very Satisfied

Section IV- Expectations and Perceptions

Section IV- Expectations and Perceptions

DIRECTIONS: Each question has two statements that relate to your expectations of college/universities and your perceptions of your experiences at [redacted]

Using the scale for each EXPECTATION statement (part a), please show the extent to which you think college/universities should possess the features described by each statement. There are no right or wrong answers- this survey is designed to solicit responses that best indicate your expectation about the services that should be provided by a college/university.

Using the scale for each PERCEPTION statement (part b) to show the extent to which you believe [redacted] possesses the features described by each statement. There are not right or wrong answers- this survey is designed to solicit responses that best indicate your perceptions about the services that are provided by [redacted]

TANGIBLES





Question 1

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
a. Colleges/Universities will use interactive video/computer educational technology.	1.0	0.0	0.0	0.0	0.0	0.0	1.0
b. [REDACTED] uses interactive video/computer educational technology.	1.0	0.0	0.0	0.0	0.0	0.0	1.0

Question 2

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
a. Colleges/Universities will have clearly defined lesson objectives and assignments.	0.0	0.0	0.0	0.0	0.0	0.0	1.0
b. [REDACTED] has clearly defined lesson objectives and assignments	0.0	0.0	0.0	0.0	0.0	0.0	1.0

Question 3

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
a. Colleges/Universities will have courses that apply to career goals.	0.0	0.0	0.0	0.0	0.0	0.0	1.0
b. [REDACTED] has courses that apply to career goals.	0.0	0.0	0.0	0.0	0.0	0.0	1.0





Question 4

- a. Colleges/Universities will have enrollment forms that are easily completed.
- b. [REDACTED] has enrollment forms that are easily completed.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
-------------------	----------	-------------------	----------------------------	----------------	-------	----------------



TANGIBLES

Question 5

- a. Colleges/Universities will have orientation manuals that provide clear explanations of the institution.
- b. [REDACTED] uses orientation manuals that provide clear explanations of the institution.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
-------------------	----------	-------------------	----------------------------	----------------	-------	----------------



Question 6

- a. Colleges/Universities will have electronic (e-mail) systems to facilitate communication.
- b. [REDACTED] has electronic (e-mail) systems to facilitate communication.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
-------------------	----------	-------------------	----------------------------	----------------	-------	----------------





Question 7

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
a. Colleges/Universities will have faculty with experience with adult students.	1	2	3	4	5	6	7
b. [REDACTED] has faculty with experience with adult students.	1	2	3	4	5	6	7

Question 8

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
a. Colleges/Universities will have study guides for coursework that apply content to real-life experiences.	1	2	3	4	5	6	7
b. [REDACTED] has study guides for coursework that apply content to real-life experiences.	1	2	3	4	5	6	7

TANGIBLES





Question 9

a. Colleges/Universities will have promotional materials accurately describing the institutional components and services.

b. [Redacted] has promotional materials accurately describing the institutional components and services.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 10

a. Colleges/Universities will offer scholarships and financial aid.

b. [Redacted] offers scholarships and financial aid.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 11

a. Colleges/Universities will offer a course on study skills and time management.

b. [Redacted] offers a course on study skills and time management.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

RELIABILITY





Question 9

a. Colleges/Universities will have promotional materials accurately describing the institutional components and services.

b. [Redacted] has promotional materials accurately describing the institutional components and services.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 10

a. Colleges/Universities will offer scholarships and financial aid.

b. [Redacted] offers scholarships and financial aid.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 11

a. Colleges/Universities will offer a course on study skills and time management.

b. [Redacted] offers a course on study skills and time management.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

RELIABILITY





Question 9

a. Colleges/Universities will have promotional materials accurately describing the institutional components and services.

b. [Redacted] has promotional materials accurately describing the institutional components and services.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 10

a. Colleges/Universities will offer scholarships and financial aid.

b. [Redacted] offers scholarships and financial aid.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 11

a. Colleges/Universities will offer a course on study skills and time management.

b. [Redacted] offers a course on study skills and time management.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

RELIABILITY





Question 9

a. Colleges/Universities will have promotional materials accurately describing the institutional components and services.

b. [Redacted] has promotional materials accurately describing the institutional components and services.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 10

a. Colleges/Universities will offer scholarships and financial aid.

b. [Redacted] offers scholarships and financial aid.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 11

a. Colleges/Universities will offer a course on study skills and time management.

b. [Redacted] offers a course on study skills and time management.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

RELIABILITY





Question 12

a. Colleges/Universities will have faculty or staff with whom students are comfortable communicating.

b. [Redacted] has faculty or staff with whom students are comfortable communicating.

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree



Question 13

a. Colleges/Universities will have faculty outside the student's major willing to help with questions related to coursework.

b. [Redacted] has faculty outside the student's major willing to help with questions related to coursework.

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree



Question 14

a. Colleges/Universities will have helpful staff answering the telephone and responding to emails and in-person inquiries

b. [Redacted] has helpful staff answering the telephone and responding to emails and in-person inquiries.

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree





Question 12

a. Colleges/Universities will have faculty or staff with whom students are comfortable communicating.

b. [Redacted] has faculty or staff with whom students are comfortable communicating.

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree



Question 13

a. Colleges/Universities will have faculty outside the student's major willing to help with questions related to coursework.

b. [Redacted] has faculty outside the student's major willing to help with questions related to coursework.

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree



Question 14

a. Colleges/Universities will have helpful staff answering the telephone and responding to emails and in-person inquiries

b. [Redacted] has helpful staff answering the telephone and responding to emails and in-person inquiries.

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree





RELIABILITY

Question 15

a. Colleges/Universities will provide return of course assignments timely.

b. [Redacted] returns course assignments timely.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 16

a. Colleges/Universities will respond to individual learning needs by modifying course assignments where appropriate.

b. [Redacted] responds to individual learning needs by modifying course assignments where appropriate.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>





Question 17

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
a. Colleges/Universities will have faculty and staff who instill confidence in students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. [REDACTED] has faculty and staff who instill confidence in students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 18

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
a. Colleges/Universities will make students feel secure in discussing problems and decisions affecting them with faculty and staff.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. [REDACTED] makes students feel secure in discussing problems and decisions affecting them with faculty and staff.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

RESPONSIVENESS





Question 19

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
a. Colleges/Universities are responsive to the needs of special populations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. [Redacted] is responsive to the needs of special populations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 20

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
a. Colleges/Universities will have regular contact between students and faculty, either written, verbal, or electronic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. [Redacted] has regular contact between students and faculty, either written, verbal, or electronic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 21

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
a. Colleges/Universities will have faculty who promptly return telephone or e-mails.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. [Redacted] has faculty who promptly return telephone or e-mails.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>





Question 22

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
a. Colleges/Universities will deliver on-line course quality equal to classroom instruction.	100%	0%	0%	0%	0%	0%	0%
b. [Redacted] delivers on-line course quality equal to classroom instruction.	100%	0%	0%	0%	0%	0%	0%

Question 23

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
a. Colleges/Universities will tell students exactly which services are provided.	100%	0%	0%	0%	0%	0%	0%
b. [Redacted] tells students exactly which services are provided.	100%	0%	0%	0%	0%	0%	0%

ASSURANCE

Question 24

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
a. Colleges/Universities will not tolerate academic dishonesty.	100%	0%	0%	0%	0%	0%	0%
b. [Redacted] does not tolerate academic dishonesty.	100%	0%	0%	0%	0%	0%	0%





Question 25

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
a. Colleges/Universities will have faculty who give students individual attention.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. [REDACTED] has faculty who give students individual attention.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

EMPATHY

Question 26

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
a. Colleges/Universities will help students with career advice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. [REDACTED] helps students with career advice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 27

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
a. Colleges/Universities will make students feel part of the university.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. [REDACTED] makes students feel part of the university	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section V- DEMOGRAPHIC DATA





Section V- ADDITIONAL DEMOGRAPHIC DATA

DIRECTIONS: Please complete the following information about yourself.

Previous education experience? Check the highest that applies.

- GED
- High School Diploma
- Associate degree
- Bachelor degree

Number of credit hours completed at (not including classes currently enrolled)?

- 1-15
- 16-30
- 31-45
- 46-60
- 61-75
- 76-90
- 91-105
- more than 106

Number of years at

- Less than 1 year
- 1 to 2 years
- 3 to 4 years
- 5 years or more





Amount of time available each week for educational activities?

- None
- 10 hours or less
- 11 hours or more

Number of hours per week employed outside the home?

- 20 hours or less
- 21-30
- 31-40
- Over 40 hours

Primary reasons for enrolling at  Rank top three reasons (1 is most important).

- Program reputation
- Earn a higher salary
- Improve job knowledge
- Keep my current job
- Secure a promotion
- Earn a degree
- Other





We would like to know more about your current learning environment? Check all that apply.

- I have a private study place set aside at work
- I have a private study place set aside at home
- I study wherever I can find room
- I obtain a great amount of enjoyment in studying
- Family members adjust to my studying
- I have time to study during the workday
- My family is supportive of my educational goals
- I have a set time when I study

Please share any additional information about your experience at





APPENDIX C

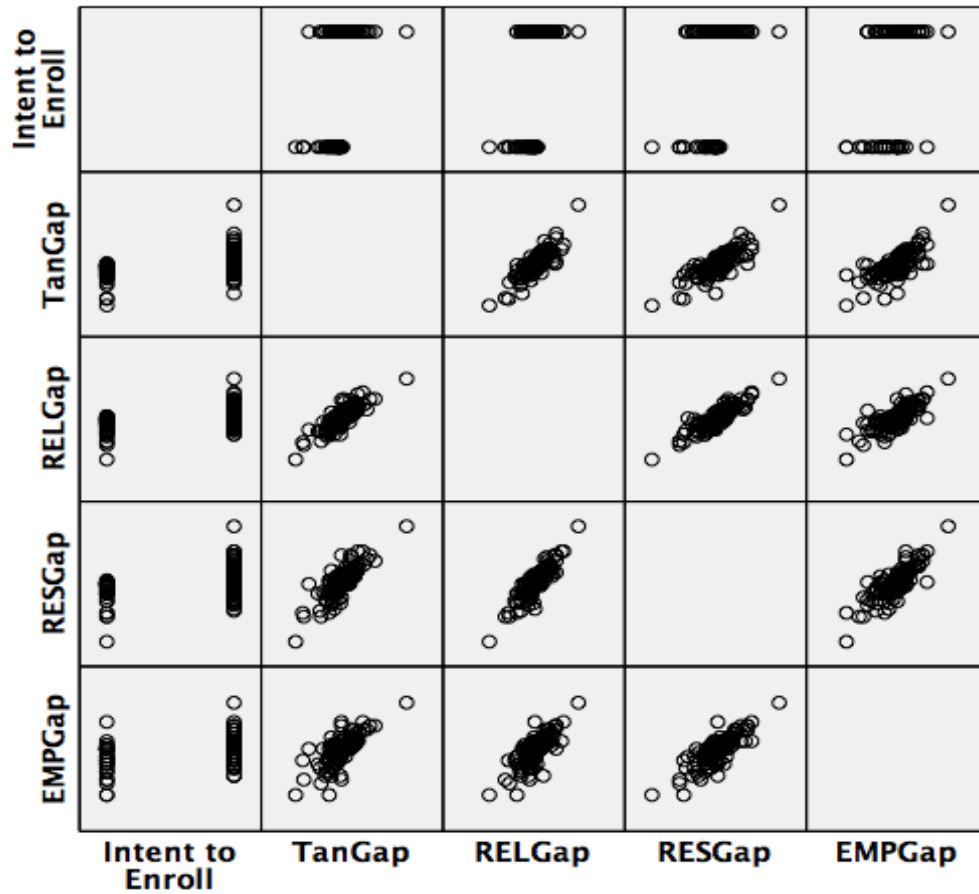
Frequency Distribution of Expectations and Perceptions

Item	Expectations							Perceptions							Gap Score P-E							
	1	2	3	4	5	6	7	N	Mean	SD	1	2	3	4		5	6	7	N	Mean	SD	
Tangibility																						
1	5	2	4	19	34	103	112	279	5.98	1.22	9	6	8	15	27	80	136	281	5.95	1.48	-0.03	
2	3	2	1	13	18	111	128	276	6.21	1.05	4	1	5	7	24	82	156	279	6.28	1.12	0.07	
3	4	2	0	12	17	106	134	275	6.24	1.07	5	2	8	9	9	90	155	278	6.26	1.22	0.02	
4	3	3	6	18	38	92	117	277	5.99	1.21	6	0	5	9	17	90	153	280	6.26	1.17	0.27	
5	3	1	2	25	29	102	114	276	6.04	1.31	4	0	4	16	22	85	148	279	6.22	1.13	0.18	
6	4	1	2	16	20	100	133	276	6.18	1.11	4	0	7	12	12	69	178	282	6.36	1.14	0.18	
7	3	2	1	26	23	100	120	275	6.07	1.15	6	5	2	14	18	74	160	279	6.21	1.30	0.14	
8	3	1	3	23	27	105	114	276	6.05	1.13	6	3	6	15	28	83	139	280	6.08	1.31	0.01	
9	4	1	3	25	32	104	103	272	5.96	1.18	5	2	3	20	29	89	129	277	6.06	1.24	0.10	
10	3	3	2	19	12	99	137	275	6.20	1.14	7	5	5	22	25	87	128	279	5.96	1.39	-0.24	
11	4	2	4	30	20	101	112	273	5.97	1.39	3	4	3	27	16	90	136	279	6.09	1.23	0.12	
Reliability																						
12	3	1	2	3	4	5	6	7	N	Mean	SD	1	2	3	4	5	6	7	N	Mean	SD	P-E
12	3	1	7	20	27	96	117	271	6.04	1.18	5	3	8	11	25	83	142	277	6.12	1.28	0.08	
13	3	3	3	42	23	91	105	270	5.86	1.28	5	4	4	40	27	78	117	275	5.84	1.38	-0.02	
14	4	3	8	23	24	100	108	270	5.93	1.28	6	4	5	13	24	84	140	276	6.11	1.31	0.18	
15	3	3	4	19	18	109	112	268	6.06	1.17	4	1	4	5	27	88	184	273	6.26	1.09	0.20	
16	3	6	8	38	24	92	93	264	5.73	1.55	7	7	15	32	25	80	108	274	5.68	1.55	-0.05	
17	3	4	3	25	23	104	106	268	5.97	1.22	5	3	9	11	17	87	141	273	6.14	1.29	0.17	
18	3	4	3	29	23	96	110	268	5.96	1.25	7	5	8	17	19	90	128	274	5.99	1.41	0.03	
Responsiveness																						
19	3	1	7	47	20	95	91	264	5.76	1.29	3	4	4	52	18	80	110	271	5.80	1.361	0.04	
20	4	3	2	25	24	99	107	264	5.98	1.228	8	4	8	12	20	79	139	270	6.06	1.42	0.08	
21	4	3	4	27	26	97	102	263	5.92	1.263	9	3	15	8	31	87	118	271	5.89	1.473	-0.03	
22	3	2	6	28	15	104	104	263	5.97	1.224	5	2	7	12	14	88	142	270	6.19	1.242	0.22	
23	3	2	4	22	21	98	114	264	6.05	1.178	4	2	6	11	17	97	135	272	6.18	1.173	0.13	
Assurance																						
24	3	0	2	14	8	76	161	264	6.39	1.026	2	1	1	10	1	68	187	270	6.55	1.249	0.16	
25	5	1	3	28	25	96	106	264	5.95	1.249	10	5	7	22	18	82	124	268	5.89	1.524	-0.06	
Empathy																						
26	3	3	2	20	25	100	107	260	6.03	1.167	5	5	8	25	26	79	117	265	5.89	1.399	-0.14	
27	3	3	1	20	19	102	111	259	6.08	1.148	5	5	6	14	24	83	130	267	6.06	1.327	-0.02	

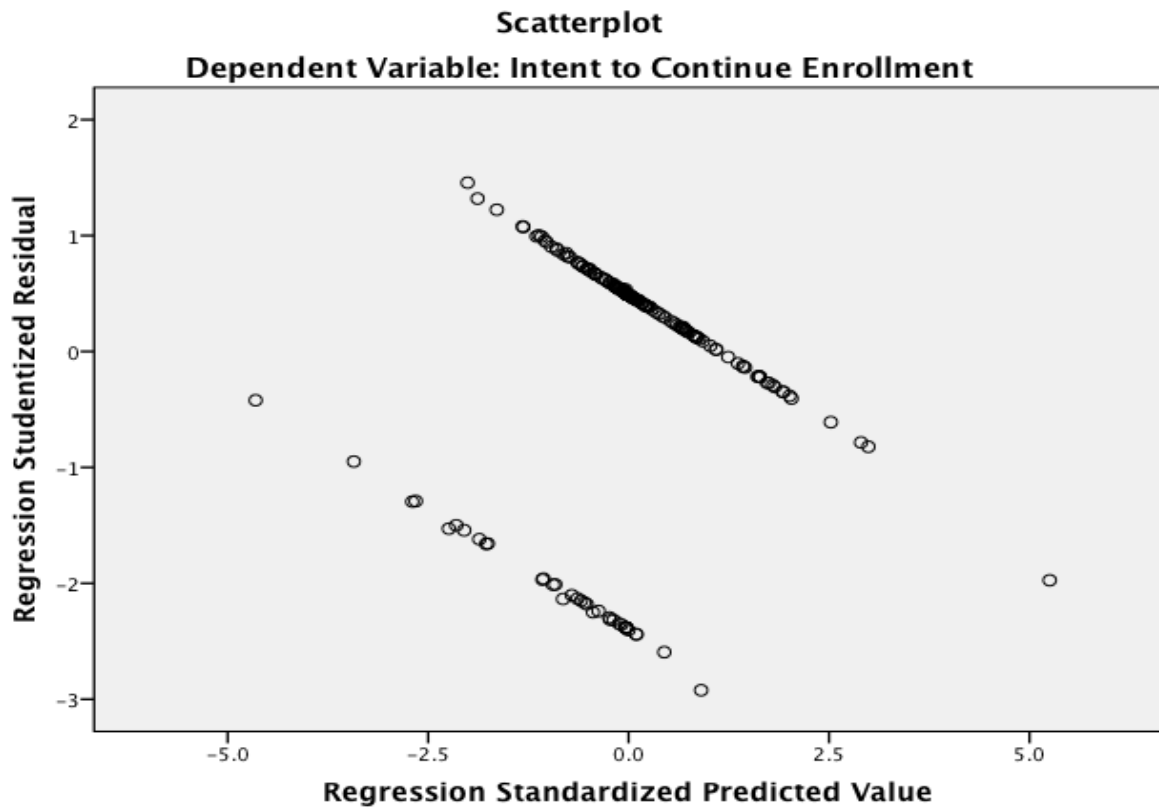
Frequency distribution of expectations and perceptions

APPENDIX D

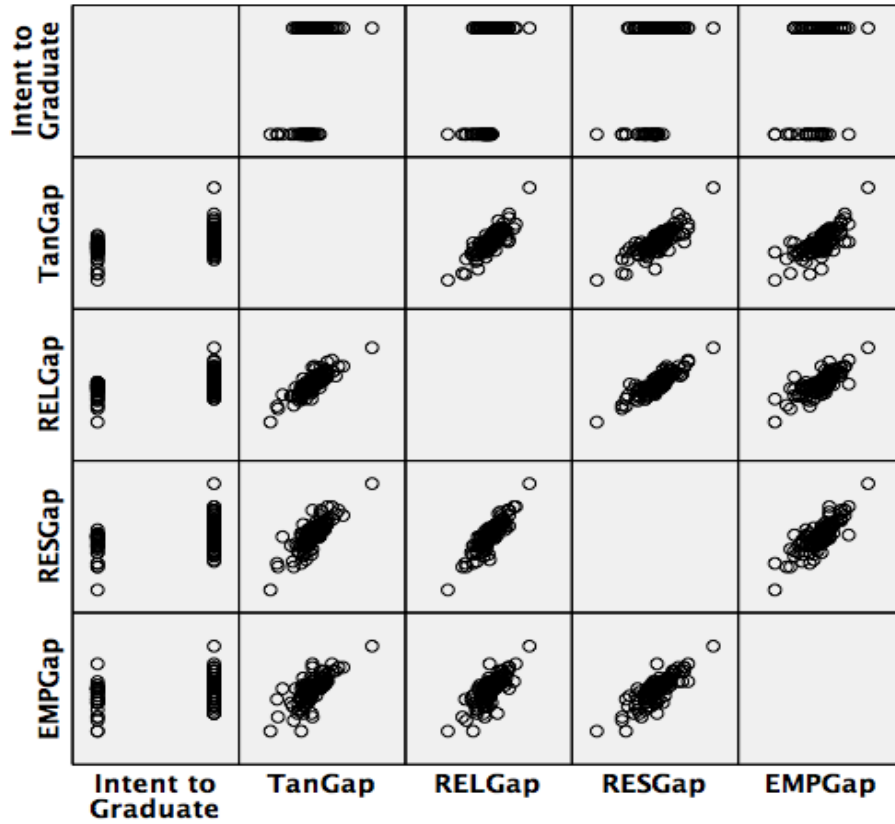
Assumption: Linear Regression



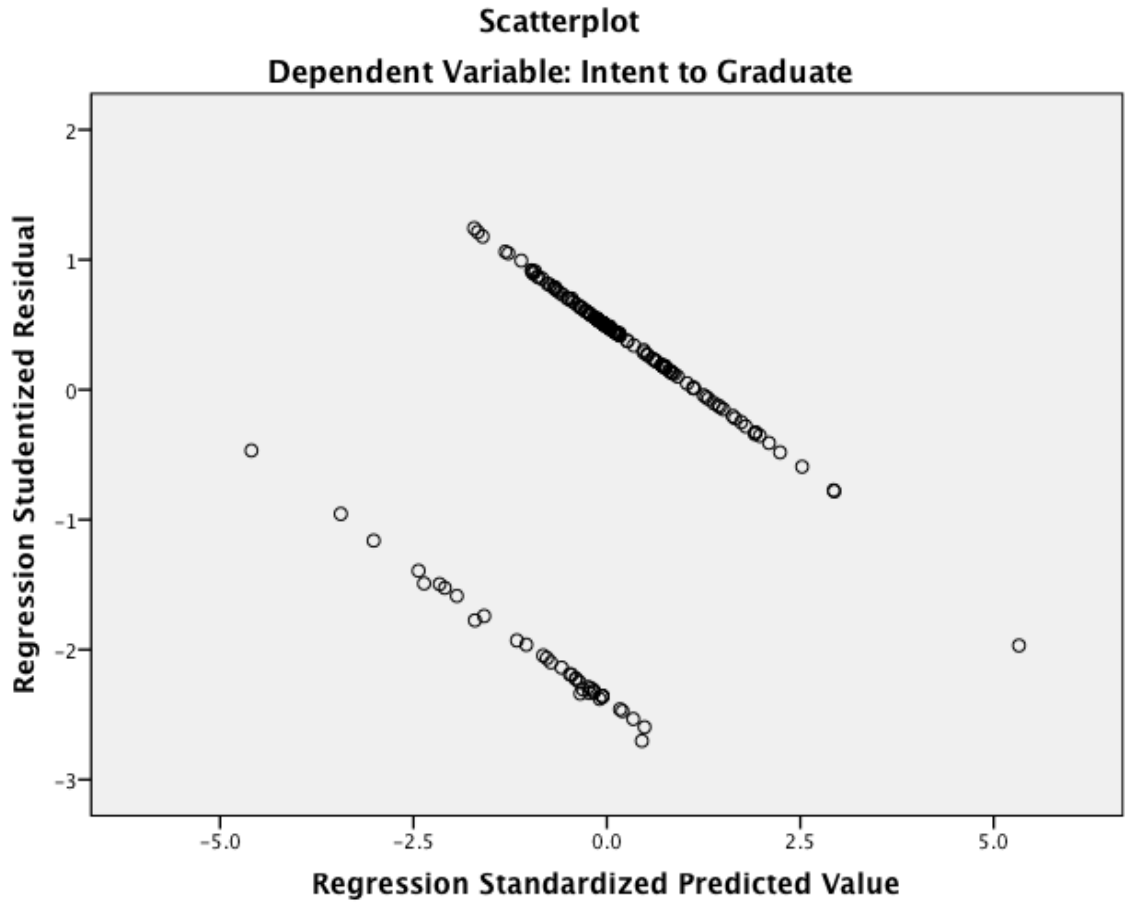
Matrix scatter of intent to enroll associated with the SERVQUAL predictor variables (tangibles, reliability, responsiveness, and empathy) gap score by dimension. Based on the examination of the scatterplots, these outcomes suggest the assumption is not met for dependent variable intent to continue enrollment.



Scatterplot of intent to continue enrollment associated with the SERVQUAL predictor variables gap score by dimension. Based on the examination of the scatterplots, these outcomes suggest the assumption is not met for the dependent variable intent to continue enrollment.



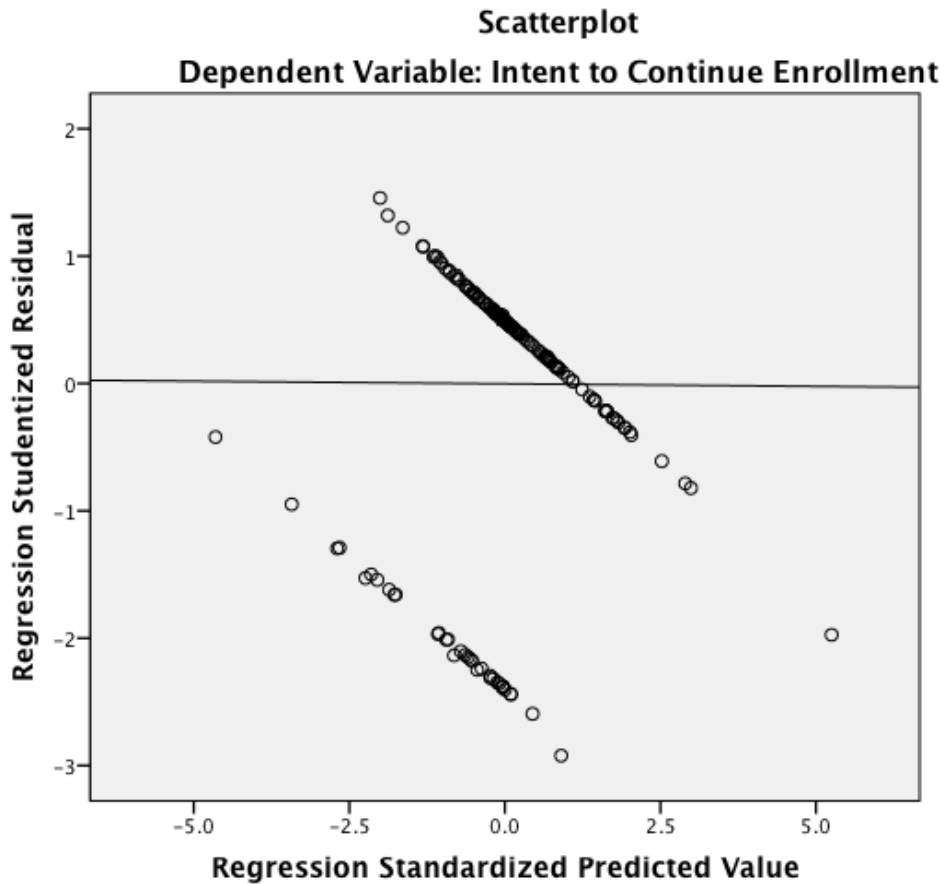
Matrix scatter of intent to graduate associated with the SERVQUAL predictor variables gap score by dimension. Based on the examination of the scatterplots, these outcomes suggest the assumption is not met for the dependent variable intent to graduate.



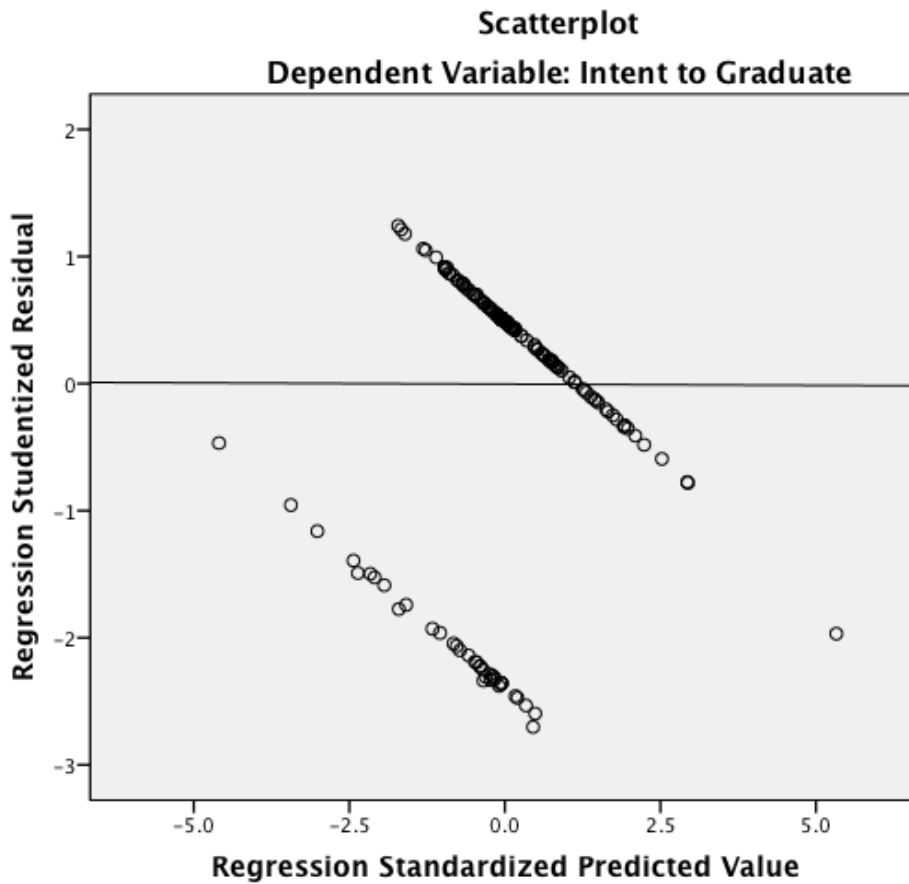
Scatterplot of intent to graduate associated with the SERVQUAL predictor variables (tangibles, reliability, responsiveness, and empathy) gap score by dimension. Based on the examination of the scatterplots, these outcomes suggest the assumption is not met for the dependent variable intent to graduate.

APPENDIX E

Assumption: Homoscedasticity



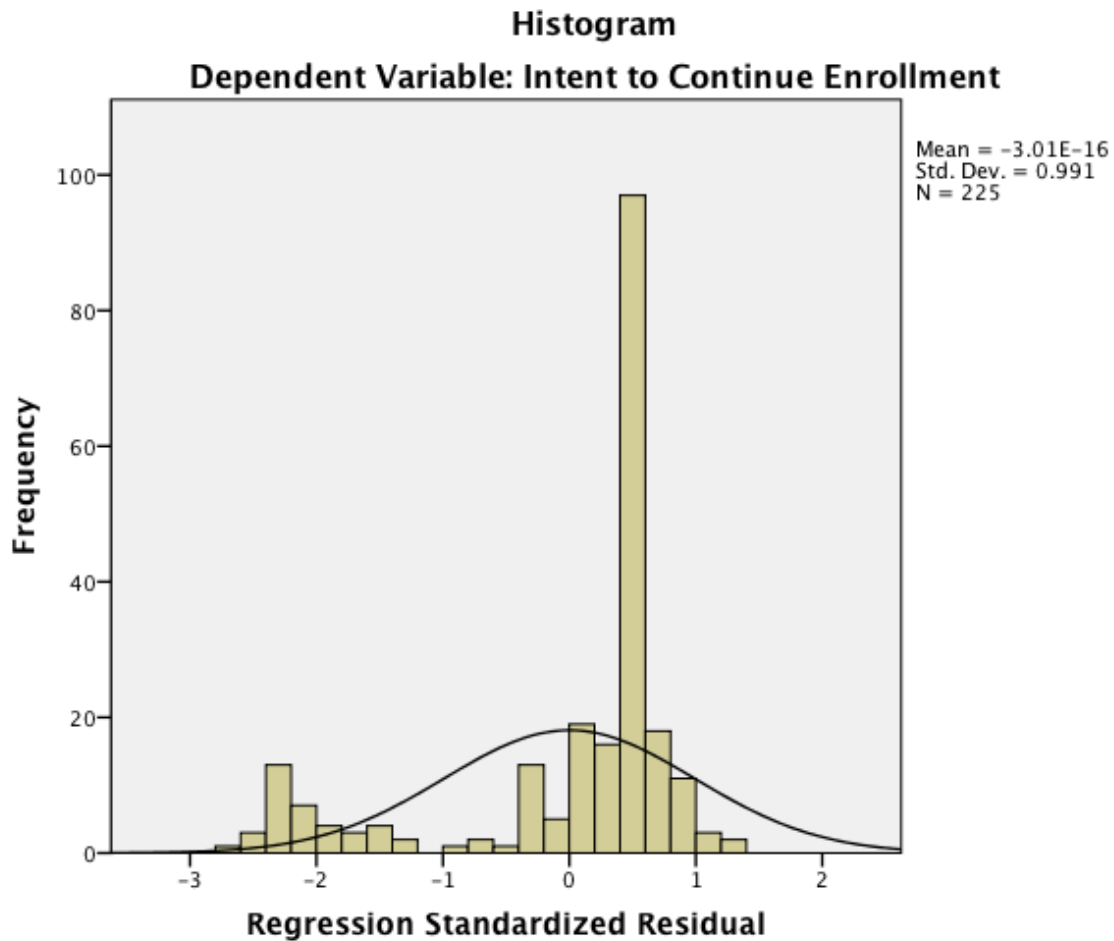
Scatterplot of intent to continue enrollment associated with the SERVQUAL predictor variables (tangibles, reliability, responsiveness, and empathy) gap score by dimension. There is a negative relationship between the predictor variable and the residual, where the prediction is underestimating the intent to continue enrollment.



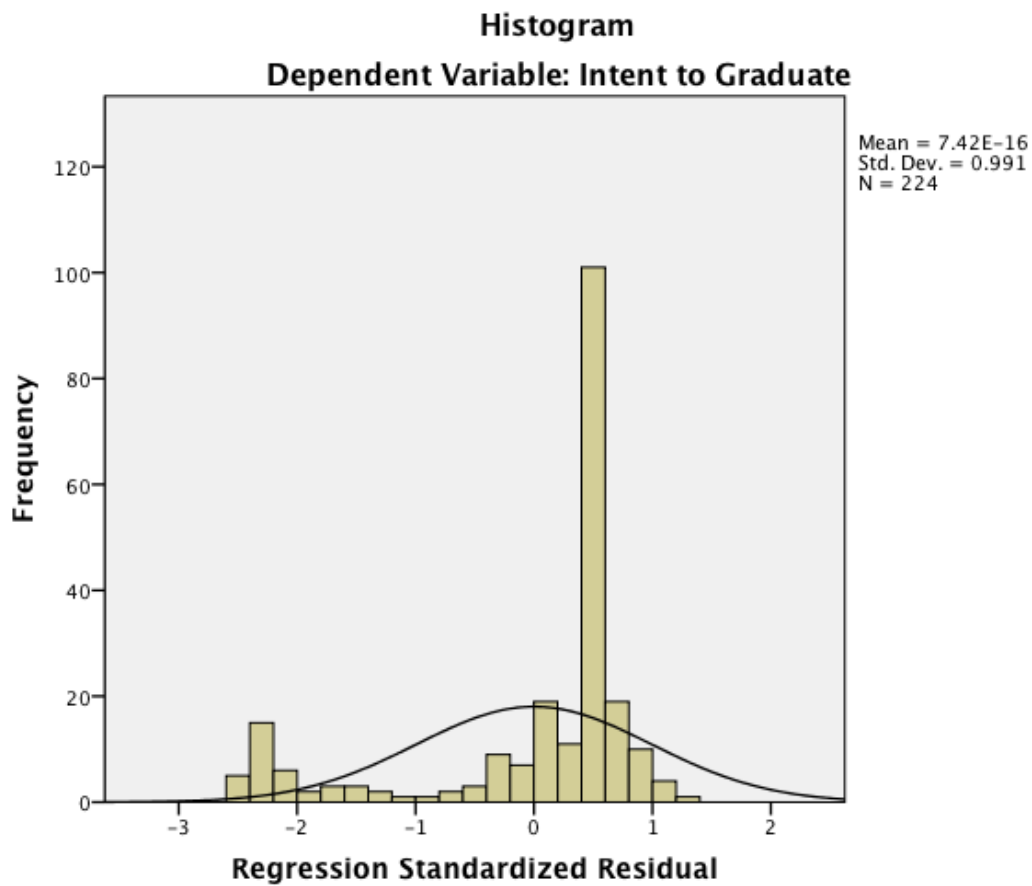
Scatterplot of Intent to Graduate associated with the SERVQUAL Predictor Variables (tangibles, reliability, responsiveness, and empathy) gap score by dimension. There is a negative relationship between the predictor variable and the residual, where the prediction is underestimating the intent to graduate.

APPENDIX F

Assumption: Normality



Histogram of intent to continue enrollment associated with the SERVQUAL predictor variables gap score by dimension. Ideally the data should follow a symmetric bell-shaped curve, however, these data have a significant spike creating a positive skew. This indicates a lack of symmetry where most of the data falls right of the median suggesting that students responses to intent to continue is highly likely.



Histogram of intent to graduate associated with the SERVQUAL predictor variables gap score by dimension. Ideally the data should follow a symmetric bell-shaped curve, however, these data have a significant spike creating a positive skew. This indicates a lack of symmetry where most of the data falls right of the median suggesting that students responses to intent to graduate and intent to graduate is highly likely.

VITA

Melissa Hanks France

Candidate for the Degree of

Doctor of Philosophy

Thesis: STUDENT EXPECTATIONS AND PERCEPTIONS OF SERVICE QUALITY

AT A FOR-PROFIT COLLEGE

Major Field: Educational Leadership and Policy Studies

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy/Education in Educational Leadership and Policy Studies at Oklahoma State University, Stillwater, Oklahoma in May, 2015.

Completed the requirements for the Master of Education in Higher Education at State University of New York at Buffalo, New York in 1992.

Completed the requirements for the Bachelor of Arts in Political Science at State University of New York at Buffalo, New York in 1990.

Experience:

July, 2010 – Present: Associate Vice President for Enrollment and Student Services, The University of Tulsa

January, 2007 – July 2010 Director of Housing and Dining Services, The University of Tulsa

August, 2000 – January, 2007 Director of Residence Life, The University of Tulsa

Professional Memberships:

Association of College and University Housing Officers-International
National Association of Student Personnel Administrators
American College Personnel Association