

DISSERTATION

AFFINITY DEVELOPMENT IN UNDERGRADUATE STUDENTS
AT A LARGE RESEARCH INSTITUTION

Submitted by

Lori M. Berquam

School of Education

In partial fulfillment of the requirements

For the Degree of Doctor of Philosophy

Colorado State University

Fort Collins, Colorado

Spring 2013

Doctoral Committee:

Advisor: Nathalie Kees

James Banning

Aaron Brower

Joyce Berry

Copyright by Lori M. Berquam 2013

All Rights Reserved

ABSTRACT

AFFINITY DEVELOPMENT IN UNDERGRADUATE STUDENTS AT A LARGE RESEARCH INSTITUTION

Public institutions of higher education have faced repeated financial reductions over the past decade. The cumulative effect of reductions has necessitated public institutions re-examine funding models and funding alternatives that allow the institution to thrive. Alumni are the living endowment of the institution and are offered opportunities for involvement with their alma mater throughout their lives. The purpose of this study is to explore the association of specific university experiences that contribute to a strong sentiment of affinity of undergraduates for the institution. It further explores the experiences that appear to be most significant in developing *university affinity* at the undergraduate level. Current students enrolled at a public research extensive university in the Midwest were surveyed to determine if a relationship exists between university experiences and *university affinity*. This study also examined the differences in student characteristic information and *university affinity*. Using multiple regression to analyze the results, four university experience constructs were found significant. They include; student service opportunities, student service staff, initial impressions of the institution and extracurricular involvement. The analysis of student characteristics did not have significance in this study. Examining the experiences, perceptions and demographics of current students and what contributes to the concept of affinity is critical in the pursuit of alumni who want to be connected and committed to the institution.

Keywords: *affinity, satisfaction and alumni.*

ACKNOWLEDGEMENTS

“We are who we are, through other people.” Naomi Tutu

I am so grateful for all those who have assisted me on this journey. I am better for your mentorship, your insight and your wisdom! Specifically, my committee. Thank you, Dr. Nathalie Kees, my advisor for the many summertime lunches and for your patient calmness throughout the dissertation process reminding me countless times that it can be done. Dr. Aaron Brower who was my coffee turned tea drinking mentor, guiding me through all the statistical analyses and combing through the data to make sense of the results. I am so grateful for your encouragement and leadership throughout my career! Dr. Banning for your insightful quips and challenges about the topic and the encouragement to delve deeper. Dr. Berry for your expertise in this area and your willingness to take a chance on me as a student. You were a team extraordinaire and I am a better researcher because of each of you! Thank you.

To the 2009 cohort, thank you for the fun, frolic and commitment. We are going to change the world! The LOCO FOCO group – you are the best! Rachael, our organized leader, I appreciate your efforts challenging us to stay on task! Adam, you led the way by getting finished first and Dan, for your statistical expertise! Tyna, keep at it and persevere, you will finish! A special thanks to Anita for our Rockford rendezvous! You kept it real and for that, I thank you.

Thanks to my colleagues on campus; Kevin, Argyle, Sue, Diane, Becci, Eden, Kathy, Donna, Allison and Kelly for supporting me in this endeavor. You each took on additional responsibilities and kept the division moving forward when I was immersed in my dissertation. To Keith and Maggie, who coached me throughout our regular breakfast meetings! And to the women deans, who were inspirational in my effort to take on this challenge. Thank you.

To my parents and siblings, I appreciated your support, even when you were not exactly sure why I was doing this! I am so fortunate to have parents who allowed me to further my education. Thank you.

And finally, a very special thank you for Karen and Clancy. Clancy, you woke up with me every morning to write. You were my sleepy comrade and we did it! Karen, without you, this would not have happened. There was never a complaint, never a question in your mind that this was important, you supported me unconditionally. I appreciate how you reinforced the importance of dreams. And thanks for making mine come true. This is for both of us! I have a debt of gratitude for all you have done over the past four years to make this happen. Thank you.

DEDICATION

This is dedicated to Michael J. Baynes.

1957-2012

A man who had a strong sense of affinity for life and everything in it!

I miss you my friend.

TABLE OF CONTENTS

ABSTRACT	ii
ACKNOWLEDGEMENTS	iii
DEDICATION	v
PROLOGUE	1
CHAPTER 1: INTRODUCTION	3
Background of the Study	4
Statement of the Problem	6
Purpose of the Study	8
Research Questions	8
Definition of Key Terms	9
Delimitations of the Study	9
Importance of the Study	9
Summary	10
CHAPTER 2: LITERATURE REVIEW	11
Higher Education Funding	12
Factors Influencing the Undergraduate Experience	14
Alumni Loyalty	16
Student Loyalty	21
Summary	23

CHAPTER 3: METHODOLOGY	25
Research Questions	25
Research Design.....	27
Analysis Model	27
Instrumentation	29
Population, Sample, and Sampling Method.....	30
Power Analysis	31
Operationalization of Variables	32
Pilot Study.....	35
Validity	36
Ethical Considerations	36
Data Collection	36
Data Analysis	37
Limitations	39
Summary	39
CHAPTER 4: RESULTS	41
Research Questions.....	41
Descriptive Analysis	41
Preliminary Analysis.....	46
Primary Analysis.....	58

Summary	61
CHAPTER 5: DISCUSSION.....	63
Research Questions.....	63
Findings.....	63
Discussion.....	64
Findings Without Significance	69
Affinity.....	71
Implications for Practice.....	72
Limitations	75
Recommendations for Future Research	76
Summary	77
Conclusion	77
EPILOGUE.....	80
REFERENCES	83
APPENDIX A.....	93
APPENDIX B	94
APPENDIX C	100
APPENDIX D.....	101
APPENDIX E	102
APPENDIX F.....	103

APPENDIX G.....	104
APPENDIX H.....	105

PROLOGUE

Three women, representing three generations, are in attendance at an alumni event that was scheduled as part of the annual Homecoming weekend. The oldest, Christine graduated in 1953 with a degree in Education. She was a member of the Home Economics Club, the dormitory association and she was a cheerleader. Christine met her husband at a local soda fountain while both were students. She recounts stories of living in the dorm, where there were specific visiting hours and male guests had to sign in. All room doors needed to be open, and should the housemother happen by, all students needed to have both feet on the floor. Christine also shared that throughout the years, she has been a guest lecturer and often hosted student teachers from the campus. She and her husband have been regular contributors to their alma mater for the past fifty years. The amount of giving was small at first. As the family farm prospered and their family grew, they continued to make frequent trips to the campus. They brought their young children, and later, their grandchildren to witness the pride of their youth. She gushes with excitement as she introduces her daughter.

Cheryl is Christine's oldest daughter. She graduated from the campus in 1975, almost 25 years after her mother. Cheryl was involved in the student government, wrote for one of the school newspapers, and was in a sorority. She offered many memories of her time on campus, specifically, the unrest that existed on campus during the tail end of the Vietnam War. The campus was politically charged with discourse and protests. A building was bombed on campus and a researcher died in the blast. Like her mother, Cheryl also met her husband on campus. Cheryl vividly remembered the transition from single-sex to coeducational residence halls and the controversy that surrounded the change on campus. She and her husband regularly travel from a nearby state to attend football games and gather with friends from their era. She also

reported giving to the university annually. Cheryl then turns to a young woman about 20 years old and introduces her daughter, Cassandra.

Cassie is a sophomore on campus. She is an avid “tweeter” and loves the mascot and the beauty of the campus. Cassie just started as a tour guide for the campus and can be found walking small groups of visitors around the grounds. She was quick to say how she is also a writer for the school newspaper (although it is the rival paper to the one her mother wrote for as a student). The highlight in Cassie’s student experience was a visit from the sitting President. “It was moving and incredible.” Cassie plans to study international relations and hopes to become an ambassador to another country. She was quick to say that thus far, her undergraduate experience has been remarkable and better than she had hoped.

CHAPTER 1: INTRODUCTION

The undergraduate experience can have a major impact on one's life and bring lifelong connections, both to people and the university. Developing bonds to the people at the institution, the location of the institution, and the values the institution espouses have the potential to impact interest in institutional success. This interest could translate into financial gifts, legacy attendance, scholarship awards, and even large endowments. Similarly, public institutions need to consider how to build the level of support from alumni (Volkwein & Parmley, 1999).

Historically, fundraising for higher education was primarily the responsibility of private colleges and universities (Worth & Smith, 1993). By 1970, however, most public institutions had a formal fundraising program in place (Lawley, 2008). They began seeking development strategies to augment the loss of support from the government. Over the past 15 years, public higher education has faced enormous reductions in financial support. Development officers and higher education administrators have had to focus their efforts on filling financial gaps and supplementing support extended by the state and federal government. Options for public higher education funding include tuition, federal and state monies, research grants, invention royalties and gifts.

The intensity and impact of the public higher education funding debate is evident at both state and federal levels. With declining financial support from state and federal sources, fundraising has become a top priority for colleges and universities across the nation (Mann, 2007). Increasingly, development efforts have focused on the "living endowment" of the institution; in other words, the students and alumni of the institution (Langley, 2010). With an increasing life expectancy and more students than ever graduating, the number of living alumni

is growing, as is the need for their help (Melchiori, 1988). And the assistance alumni can provide takes multiple forms. Alumni can offer send-off socials for incoming students or they can guest lecture. They can fund a scholarship or judge a dance competition, of course, alumni can also become financial donors to the institution. Maintaining a lifetime connection with alumni can offer support to the institution in the form of time, talent and treasure.

In response to the decline in public funding, university administrators and development officers are formulating major gift campaigns to offset the loss of state and federal funds. Nationally, private donations to higher education, including those from alumni have increased by 25 percent over the past decade (Wolverton, 2008). Alumni associations, which have often been the cultivators of good will and institutional loyalty, are now relied upon for financial contributions (Langley, 2010).

Background of the Study

As public funding for higher education dwindles, the role of alumni takes on greater importance. Studies have shown that alumni are more likely to contribute to the institution, when able, if they reported having a rewarding undergraduate experience, believed the institution contributed to their success, and they continued to feel connected to their alma mater (Johnson & Eckel, 1997; Vanderbout, 2010). Alumni can also contribute in less obvious ways. They can offer internship locations or graduates, mentorship opportunities for current students or lobbying for the institution at the state capitol. Undergraduate students who have a positive and satisfying experience while enrolled tend to develop lifelong relationships as alumni with the institution (Johnson & Eckel, 1997). A positive experience includes enjoying classes, developing friendships and obtaining a useful degree. Being satisfied with the undergraduate

experience could mean obtaining a job upon graduation or getting connected to worthwhile efforts that offer challenge for the graduate.

With these past results in mind, the theoretical framework applied in this study is Astin's Student Involvement Theory. Involvement theory has been one of the benchmarks of student success, and many studies have identified it as a factor contributing to student retention in the learning environment. Other researchers have replicated Astin and confirmed and re-emphasized the value and impact of involvement and the collegiate student experience (Astin, 1999a; Pike & Kuh, 2005; Pike, Smart, Kuh, & Hayek, 2006).

Student retention is an imperative topic for higher education administrators. From a financial standpoint, it is less costly to retain a student until graduation than it is to recruit new students to backfill for those who left early (Bean, 1982; Schneider, 2010; Schuh & Gansemer-Topf, 2005). Graduation of students is a laudable goal, but retention should reach beyond the diploma as well. Ensuring alumni have a lifelong connection to the institution is a goal that could prove even more valuable.

This relationship with the institution begins with the very first contact made by the admissions office and should be never-ending (Vanderbout, 2010). Administrative offices should work together to forge affinity. For example, a natural alliance exists between student affairs and alumni affairs. Student affairs administrators are interested in student success and work endlessly to further develop students' positive experiences. A parallel track exists for alumni relations administrators; they want alumni to be successful and to continue having positive experiences with the institution.

Beyond financially, alumni are valuable assets to an institution. According to Whitaker (1999):

Alumni support is more than purely financial. Alumni give lectures, argue legislative issues, offer constructive criticism, serve on volunteer boards, recruit new students and more broadly help their alma mater each time they say something positive about the campus to others. (p. 23)

Whether they are lobbying at the capitol for additional resources, volunteering as a guest lecturer, preparing new students as they head off to college or contributing financially, they are important ambassadors for the institution (Weerts, Cabrera, & Sanford, 2010). In addition, many alumni are honored for the success they herald after leaving the institution, and in turn, their success brings a spotlight to their alma mater.

To cultivate a culture of giving by alumni, it is important to identify factors that influenced the development of affinity for the institution while enrolled as an undergraduate student (Whitaker, 1999). Knowing the influencing factors can allow university administrators to focus on what contributes to those experiences, and thereby, increase the number of students and future alumni who have affinity for the institution. The challenge for higher education is identifying factors contributing to concepts of affinity and loyalty, and in turn, enhancing those factors to yield more institutional financial support (Cates, 2011; Chung-Hoon, Hite, & Hite, 2007).

Statement of the Problem

The funding model of public higher education is not working and needs to change. Federal and state funding has progressively declined over the past 25 years for public institutions (Immerwahr, Johnson, Gasbarra, Ott, & Rochkind, 2009). This has forced administrations of public colleges and universities to increasingly spend more time raising funds for their academy. The funds raised are directed to support multiple initiatives. Updating old buildings, revitalizing athletic facilities, building scholarship funds, subsidizing faculty, and

securing financial aid packages are examples of reasons for recent fund raising efforts by campus leaders (Immerwahr, Johnson, & Gasbarra, 2008).

As stated earlier, alumni have the potential to be a major resource for their alma mater. Giving back of time, talent, or money are possibilities for almost all alumni (Lawley, 2008; Mercatoris, 2006; Pumerantz, 2004). Past studies have shown alumni are more involved, when they had a positive experience in school and develop loyalty or affinity for the institution. Many alumni possess these qualities, but further exploration is needed to identify what experiences or events, while enrolled as an undergraduate student, contributed to an emotional attachment and greater levels of affinity for the institution. If administrators can understand these factors, then affinity levels might be raised, thereby, increasing resources for the university. Thus, an exploration of what factors contribute to the sentiment of affinity will be the focus of this study.

Clearly, identifying variables that contribute to undergraduates developing a sense of affinity for the institution is important information for university administrators (Gaier, 2005; Johnson & Eckel, 1997; Mulugetta, Nash, & Murphy, 1999). Researchers at Cornell University asked a powerful question that is at the center of this study, “What, if anything, can institutions do to nurture or reinforce the values that will encourage undergraduates to support their institution either financially or through volunteer efforts after graduation?” (Mulugetta et al., 1999, p. 62).

Obtaining specific student characteristic data is also helpful for institutions to make informed and evidence-based decisions about where to focus energy and time. Therefore, in addition to examining undergraduate experiences, it is also valuable to analyze specific student characteristic data to fully understand the impact that classification level, resident status, sex and GPA may have on overall affinity levels. This study will gather and review characteristic

information along with university experiences and *university affinity* to formulate a framework for administrators.

Purpose of the Study

Developing alumni who possess affinity for their alma mater is important for public higher education institutions to thrive. Even more important, however, is identifying experiences that influence high affinity levels while the student is currently enrolled at the institution. The purpose of this study is to identify the university experiences and student characteristics that may contribute to the development of *university affinity*.

Research Questions

The research questions were designed to explore the factors influencing institutional affinity. The following questions were the basis for the study:

1. What is the association between *university affinity* and each of the following: *teaching quality, student services opportunities, the quality of student services staff, the quality of facilities, student impressions, and extracurricular involvement?*
2. What is the association between *university affinity* and student characteristics of *classification level, resident status, sex or grade point average (GPA)?*

These research questions have been developed after a thorough review of the current literature related to the themes of the research topic. This study will focus on university experiences and student characteristics and how these constructs may or may not affect *university affinity*.

Definition of Key Terms

This section describes the intended meaning of several terms consistently used throughout this study.

Alumni. An individual who successfully completed the degree requirements and graduated from the institution.

Loyalty. See university affinity.

Student Involvement. Student interactions in inter and extra-curricular activities such as internships, student organizations, clubs and other out of classroom opportunities.

University Affinity. One's level of commitment and pride for the institution.

Delimitations of the Study

This study was delimited to a single, large, research-extensive public institution in the Midwest. The study was also delimited to enrolled undergraduates students between 18 and 25 years of age. Further, only full-time undergraduate students taking at least 12 credits at the institution were included in the study. Graduate students, professional degree-seeking students and special students were excluded from this study.

Importance of the Study

This study is important for two reasons. First, the information gathered can shed light on the undergraduate experiences that contribute to the development of affinity. Identifying the experiences that undergraduate students have for their alma mater will assist administrators to sharpen the focus paid to developing those opportunities. Undergraduate students who have affinity for the institution are likely to become interested and engaged alumni of the institution. Alumni who continue to have a relationship with the institution are more likely to support it. Supporting the institution could certainly be in the form of donor dollars, it could also be

volunteering at the institution or sharing expertise gained while enrolled as a student on the campus. Alumni are in the unique position to offer the wisdom of their experiences and the emotional connection to the institution.

Second, gathering information from current students is a unique and valuable approach to better understand students' perspectives about their alma mater. Having this information could help institutions intentionally influence affinity development in students. Knowing if there are specific demographic characteristics that lend greater weight to the development of affinity would also be helpful for institutional decision-making purposes. Both reasons assist institutional faculty and administrators in focusing their efforts towards developing a campus culture of giving. The study will also offer evidence regarding the importance of the student experience and the influence it has on creating a lifelong connection to the institution

Summary

Studying the concept of affinity and what experiences contribute to its development will help institutions focus their efforts with undergraduate students. As public institutions of higher education are facing budget reductions and greater scrutiny for the greater good, alumni are needed as a source of support for the institution. Chapter 2 will outline literature found on the subjects of higher education funding, student involvement and alumni loyalty. Chapter 3 will delineate the methodology and research design chosen for this study. This includes the instrument used, the procedures followed and the sample selected for the study. Chapter 4 will include an analysis of the data collected and Chapter 5 includes a discussion of the findings, implications for practice, recommendations for further study and a summary of the research. The study concludes with references and appendices.

CHAPTER 2: LITERATURE REVIEW

Understanding the relationship between university experiences and *university affinity* can have implications for future advancement efforts of an institution. Such insights can assist student affairs administrators to create programs and opportunities for more students to partake in the affinity enhancing events. Additionally, identifying specific demographic populations to target helps to narrow the focus and effort of out-of-classroom programming, which may influence the overall affinity level of undergraduate students.

This chapter provides a detailed review of the literature that explores the relationship between attitudes about university experiences and *university affinity*, as well as how student characteristics are related to *university affinity*. It is important to note that little to no research was found that specifically focused on the concept of affinity. Rather, references to affinity in research were about loyalty and satisfaction. Loyalty was defined in other studies as “the relationship to the institution that is defined through the students’ undergraduate experiences that result in the betterment of the university” (Mercatoris, 2006, p. 10). Loyal alumni are individuals who are deeply and happily involved in the life of the institution, they have affinity for the campus (Mueller, 1980). For the purpose of this study, the concept of affinity is unique and is defined as commitment and pride for the institution.

The review will begin with an overview of the literature highlighting the perils of funding public higher education over the past 15 years. Next, the review moves to an analysis of the literature relating student involvement to the undergraduate student experience. Particular emphasis will be placed on Astin’s theory of student involvement and the Input-Environment-Outcome Model, as it will be the theoretical framework used in this study (Astin, 1993).

Following the overview, an exploration of factors affecting alumni loyalty is presented, focusing on the specific factors that build positive alma mater relationships. Given a framework of the relationships of student involvement and the factors related to alumni loyalty, further examination will then be made into demographic factors affecting loyalty beyond the realm of higher education. As the present study is aimed at assessing the relationship between student characteristics and experiences with *university affinity*, examining factors related to affinity in other industries may also provide insight into general characteristics associated with loyalty. The chapter concludes with a review of the major findings from the literature, and a synthesis that reveals the gap in the existing research into which this study will fill.

Higher Education Funding

Public higher education is at a crossroads. Government funding has been dramatically reduced for public colleges and universities, which have faced numerous budget reductions in the past fifteen years (Ehrenberg, 2002; McLendon, Hearn, & Mokher, 2009). Federal and state support has been redirected to other community services as a result of economic downturn. Higher education has been hit particularly hard since the 2008 recession (McLendon et al., 2009). State governments around the country made mid-year budget cuts or imposed a freeze on non-critical expenditures. In an Association of Public and Land-grant Universities (APLU) conducted survey in 2009, state governments in 85 percent of the member institutions cut funding to higher education. Many institutions increased tuition or increased their enrollment to address the budget shortfall. Some institutions did both (Lederman, 2010).

Keller (2009) reported similar findings for the 2009-2010-budget year, “Sixty institutions representing 32 states reported a decrease in state appropriations. Seven institutions indicated their appropriations would remain the same, and six institutions stated their state

appropriations would increase” (p. 8). The picture is bleak for public funding for higher education. Tighter budgets have resulted in the exploration of ways to increase revenues (McAlexander & Koenig, 2001).

One potential funding source is funding from individuals, namely, current students and alumni. According to the APLU, almost 12 million undergraduate students attend state-funded, public universities in the United States. At many public institutions, out-of-state students subsidize in-state students through significantly higher tuition. Charging the research enterprise a higher percentage for overhead costs also has been a means to offset declining state support.

Another mechanism has been to increase private donations, including corporate contributions, to the institution (Strickland, 2007). Corporate sponsorships are evident across public university campuses. They can be seen in collegiate sports arenas and research laboratories (Giroux, 2003). Kezar (2004) asserted the cost of corporate sponsorships and contributions compromise the foundation of public higher education in America, the costs outweigh the existing known benefits. It is important to note corporate support is not always negative. If the partnership is forged thoughtfully, it can be mutually beneficial. This practice, although not new, is a shift for public higher education according to Speck (2010), who wrote, “Increased use of private funds to support public higher education is essential but private fundraising undoubtedly shapes the university in ways that challenge academic traditions, creating a new paradigm for financing the modern university” (p. 7). Fundraising is no longer optional for public higher education. It has become a necessity.

Historically, fundraising for higher education institutions was reserved for private schools and colleges who needed the support to survive. Harvard College was the first institution in the United States to begin fostering the involvement of alumni in graduation

exercises and as potential donors (Clotfelter, 2003). Soon after, other campuses, including Williams College, formed alumni associations whose primary purpose was to create good will and foster memories of the alma mater (Brittingham & Pezzullo, 1990). Most, if not all, institutions want to build good will, create positive memories and give students the educational tools to be a successful citizen. However, the question is: how can an institution be intentional about the experiences that develop affinity?

As the literature reflects, institutions of higher education must explore additional funding sources for campus. A constant flow of students generates a consistent alumni base. Fostering a consistent and committed alumni base is a potential source for institutional financial support. The challenge is to develop alumni who are committed to the institution, who understand the financial needs of the institution, and also possess a desire to contribute to their alma mater (Chung-Hoon et al., 2007; Whitaker, 1999). Addressing this challenge could yield more financial stability to the institution while creating a committed base of support for many years.

Factors Influencing the Undergraduate Experience

Astin's theory of student involvement. As a professor emeritus at the University of California at Los Angeles, Astin is renowned for his impact on the student experience. He is the author of numerous articles and books about students and the value of engaged, purposeful student-faculty interactions. Astin's theory has been one successful framework applied to understand the student experience. The theory is grounded in decades of research on college students and indicates that a student's involvement in his or her environment equals the output with regard to the students' development (Astin, 1984, 1993, 1999b).

Astin described his I-E-O model as:

Inputs refer to the characteristics of the student at the time of initial entry into the institution; *environment* refers to the various programs, policies, faculty, peers and

educational experiences to which the students is exposed; and *outcome* refers to the student's characteristics after exposure to the environment. (1993, p. 7)
Cornell University applied Astin's I-E-O model when it developed the Cornell

Traditions Program. The program is scholarship-based; where the students receive a substantial stipend, provided the recipients are engaged in a variety of activities and events. Participation is scored and to keep the scholarship a certain level is required. Researchers at Cornell conducted a study on the classes of 1990 and 1992, where Traditions alumni were surveyed at the same time as non-Traditions alumni. With the overall total of 416 usable surveys, analysis revealed statistically significant differences between the Traditions and non-Traditions participants with regard to institutional commitment. Involvement in student groups and community service were both variables studied, and both were found significant at the .074 and .000 levels, respectively. Additional questions were asked about the interest in donating time, talent or treasure to the institution. The odds of a Traditions program participant becoming a donor to the campus, was one and a half times more likely than a non-Traditions participants.

Cornell intentionally adjusted the I-E-O model by including commitment, making it I-C-E-O. The commitment came from the involvement in the Cornell Traditions program. The results point to the value of creating a connection to the campus, and specifically, being involved in a recognized program holds promise to influence alumni giving (Mulugetta et al., 1999).

Student involvement is one way to create a sense of belonging to the campus community. Involvement takes multiple forms. It can be participating in a student organization, interaction with faculty or peers, receiving a scholarship or volunteering on behalf of the campus. Student involvement needs to be continuous and contain both qualitative and quantitative features (Astin, 1993). Involvement theory has implications for this study in terms

of the significance of student experiences and the connection those experiences may or may not have to the overall development of affinity.

Student engagement theory. Student engagement theory, also a product of Astin's work, further explored the factors contributing to positive student outcomes (Astin, 1999b; Kuh, Kinzie, Schuh, & Whitt, 2010). The theory identifies concepts supporting student success. To realize student success, institutions need to be intentional about engaging students in the learning process (Field, 2011). High impact practices - including learning communities, community service and freshman interest groups - deepens the individual student experience and heightens the overall student experience (Kuh et al., 2010). Student engagement theory is relevant to this study because it assists in framing the successful undergraduate student experience.

Finally, the literature is less clear when examining specific demographic data (Brittingham & Pezzullo, 1990; Kameen, 2006; Lackie, 2011; Whitaker, 1999). Alumni demographic characteristics have been researched extensively and the discussion about whether these variables are valuable predictors of alumni's giving will be elaborated on later in the chapter. Historically, men have been the primary and major contributors to higher education. The research on classification, resident status, and Sex have also been conflicting (Hoyt, 2004; Whitaker, 1999). Additional research collecting and analyzing demographic information would inform future practice.

Alumni Loyalty

Alumni are, and will continue to be, an important source of support for their alma mater. Virtually every institution of higher education is looking to augment their funding enterprise by fostering relationships with alumni (Speck, 2010). Since alumni have knowledge of the

institution, and many have a positive sentiment for the experiences at the alma mater, they are also in a position to support the institution. The literature on alumni giving and the factors identified for donors versus non-donors is plentiful (Pumerantz, 2004; Speck, 2010; Sun, Hoffman, & Grady, 2007; Taylor & Martin, 1995; Weerts & Ronca, 2007, 2009). The most prevalent factors include having an emotional connection to the institution and involvement in activities such as Greek organizations.

A significant amount of research has been conducted analyzing the potential factors building positive alum to alma mater relationships. Factors identified have included: developing an emotional attachment to the institution (Baade & Sundberg, 1996; Brittingham & Pezzullo, 1990; Conner, 2005; Gaier, 2005; Johnson & Eckel, 1997; Lackie, 2011; Lawley, 2008); active participation in out-of-classroom activities (Baade & Sundberg, 1996; Brower, 2006; Hartman & Schmidt, 1995; Hoyt, 2004); participation as alumni (Lawley, 2008; Okunade & Berl, 1997; Terry & Macy, 2007) and overall satisfaction with the undergraduate experience (Liu, 2006; McAlexander, Koenig, & Schouten, 2006; McDearmon & Shirley, 2009; Melchiori, 1988; Steeper, 2009; Taylor & Martin, 1995).

Lawley (2008) electronically administered the “Comprehensive Alumni Assessment Survey” to 12,000 alumni from Purdue University with a 28 percent response rate. The results indicated that involvement at the undergraduate level played a significant role in alumni financial contributions to the institution. Over 57 percent of respondents indicated involvement in student extracurricular activities had a positive impact on the sentiment held for the institution. Additionally, the probability of contributing financially to the institution was 62 percent if the alum had involvement in activities with the institution after graduation. Several other studies yielded similar results. Conley (1999), Haddad (1986), Keller (1982) and Miracle

(1977) found undergraduate involvement in extracurricular activities led alumni to be likely donors. The involvement factor seems to be one of the critical components of alumni development.

Vanderbout (2010) conducted a qualitative study interviewing thirty alumni from several decades at a mid-sized comprehensive institution in the Midwest. A group of 15 donors and a group of 15 non-donors were interviewed. The study is significant to this study because it elevates three themes to consider: (a) relationships for long-term connections; (b) cycle of life; and (c) transformational experience.

Relationship development was considered “pivotal” in creating long-term connections to the institution. The emotional sentiment for the institution was formed through the relationships forged with friends, faculty and staff while enrolled as an undergraduate. Those who maintained deep meaningful relationships with other students remained more connected to the institution (Vanderbout, 2010).

The cycle of life refers to the different transitions that occur over a lifetime and how those impact relationships and involvement with the undergraduate institution. The cycle begins as a student and evolves throughout life. Recent alumni are initially more likely to maintain many of the friendships held as an undergraduate. As the alumnus ages, the connections are replaced by other life events. Many alumni reported that raising young children and establishing a career took precedence, and the relationship with the institution was put on hold. As children grew older, there was more interest in re-establishing a connection to the institution. Those interviewed indicated the location where they lived in proximity to the campus also influenced their connection to the institution (Vanderbout, 2010). Overall, recent alumni were thinking

about the institution, but did not feel they had time or resources to donate. However, in time, many wanted to re-establish the relationship and considered contributions to the campus.

Alumni who reported having a transformative experience while an undergraduate believed they felt connected to their alma mater. A transformative experience was usually deeply personal and often reflected a major milestone for the individual. Transformative experiences included winning a major award, being a part of a discovery, or the personal reflection of acknowledging one's racial and ethnic difference. The impact of a transformational experience is significant and felt for many years (Vanderbout, 2010). The study is useful because it identifies primary factors in the development of loyalty in alumni, specifically, the role of a student's relationship connections and significant transformative experiences.

Shabbir and Palihawadana (2007) asserted that developing enduring relationships built on "service quality, trust, commitment and satisfaction" were the key qualities in the relationship that donors' sought with the charity they supported (p. 271). Similarly, Monks (2003) found, in a quantitative study of young alumni from 28 different institutions, that respondents who reported they were "very satisfied" with their undergraduate experience financially donated over 2.6 times as much as those who identified themselves as "ambivalent" about their collegiate experience. Being ambivalent means the emotional connection is minimal toward the institution. Both studies highlight the focus on relationships and satisfaction as key components in the development of affinity. The compelling issue for institutions is the development of an undergraduate experience that builds affinity to the alma mater (Monks, 2003).

The issue surrounding young alumni and their interest, or lack thereof, in giving back to their alma mater is one worth further investigation. Weerts and Ronco (2009) surveyed 300 alumni at the University of Wisconsin about their giving pattern to the institution. Their research found that alumni who remained engaged with the institution were more likely to be donors. Young alumni may not be significant donors early in their careers, but may have the potential for larger donations later in life. Therefore, the focus on maintaining regular communication and invitations for involvement are crucial for the cultivation of young alumni, even if they are not yet donating (Johnson & Eckel, 1997; Langley, 2010; Mercatoris, 2006; Monks, 2003; Mulugetta et al., 1999; Pumerantz, 2004).

Research has also explored why alumni choose not to give to their alma mater. Wastyn (2009) reported non-donors perceived college was already too expensive for their children and other charities needed their money more. Additional research by (Weerts et al., 2010) revealed that being a recipient of financial aid in the form of loans, specifically need-based loans, reduced the probability of giving, at least in the first ten years following graduation (Dugan, Mullin, & Siegfried, 2000; Marr, Mullin, & Siegfried, 2005; Wastyn, 2009). While older research conducted by Koole (1981) at a time when school was much less expensive found the method a student used to finance their education was not a predictor of future giving. Other research demonstrated that receiving a scholarship, even if it is paired with a loan, substantially increased the likelihood of an alumni gift in the future (Diehl, 2007; Marr et al., 2005).

Sun, Hoffman, and Grady (2007) conducted a quantitative study at a comprehensive public institution in the Midwest. Over a two-year span, 1,724 alumni completed a survey inquiring about interest in financially giving to the institution. Applying a multivariate causal model, five factors emerged through the analysis including: alumni experience, alumni

motivation, student experience, student experience –relationships, and student experience – extracurricular activities. The research is compelling because it emphasizes the value of student engagement. Specifically, it focused on student involvement in extracurricular activities and developing meaningful relationships as undergraduate students. Both were crucial factors for the promise of future giving from alumni. The findings, recommended institutions focus on future students as funders (p. 307). The students attending the institution are a captive audience and are developing an emotional attachment to the campus. Institutions could and should utilize this time to prepare students to be future contributors to their alma mater.

Diehl (2007) applied Volkwein's Conceptual Model of Alumni Gift Giving Behavior in a study conducted at a public, research extensive, land-grant institution. It was found that women were 3.1 percent more likely to make a gift to their alma mater than men. This contradicted previous research which historically found men to be more likely to contribute (Volkwein, 1989; Volkwein & Parmley, 1999). This could point to a changing tide regarding gender and giving to alma maters. Involvement in student activities and a higher grade point average (GPA) also contributed to the predictability of an alumnus making a gift to the campus (Diehl, 2007). These findings are valuable to this research because the characteristics of gender and GPA and the relationship they have to the development of loyalty or affinity are part of the current study. The research on classification, resident status, and Sex have also been conflicting (Hoyt, 2004; Whitaker, 1999).

Student Loyalty

Whitaker (1999) conducted a relevant quantitative study on college seniors at twenty institutions examining the factors that contribute to institutional loyalty. The study examined seniors at four different types of institutions: public, private, historically black and women's.

Factors that were significantly associated with elevated feelings of loyalty for the institutions were: the rank of the college choice, student involvement (particularly holding officer positions in clubs and organizations), and being a female. This study is significant because it was conducted on current senior level students at the institutions studied. This more closely resembles the participants in the current study, rather than alumni reflecting back on their school, which were the typical respondent in other studies.

Using the Relationship Quality Student Loyalty (RQSL) instrument, researchers at a small regional university in Norway found that student satisfaction and the image of the university is directly related to student loyalty (Helgesen & Nettet, 2007). The study used student loyalty as the dependent variable and applied two models to explore the relationships among: service quality, facilities, student satisfaction, image of the university, and image of the study program. The researchers asserted:

Student loyalty is not restricted to the period during which students are formally registered as students. The loyalty of former students can also be highly important for an educational institution. Therefore, student loyalty can be related both to the period when a student is formally enrolled as well the period after the student has completed his or her formal education at the institution (p.42).

This is important because maintaining a long-term relationship with the university can be beneficial in many ways, specifically, by financially supporting the institution, offering guest lectures, serving as internship sites or being an enthusiastic advocate for the campus.

Modifying the SULI instrument and developing the Relationship Quality-based Student Loyalty (RQSL) tool, Hennig-Thurau, Langer, and Hansen (2001) surveyed 1,162 former students in Germany and found two primary determinants contributing to student loyalty. The researchers found that quality of education and having an emotional commitment to the

institution were significant factors that influenced student loyalty. Hennig-Thurau et al. gave three ways a loyal student may continue to support his or her school:

(a) Financially (e.g., through donations or financial support of research projects); (b) through word-of-mouth promotion to other prospective, current, or former students; and (c) through some form of cooperation (e.g., by offering placements for students or by giving visiting lectures) (p.332).

The researchers' conclusion is intriguing:

Clearly, the advantages (to the university) of student loyalty are not limited to the time that the student spends in the university; indeed, these advantages are at their greatest after the student graduates. Student loyalty should therefore be interpreted as a multiphase concept that stretches from enrollment through to retirement and beyond (p. 332).

Finally, there is transferability in examining organizational loyalty outside academia (Schein, 1990). Creating companies that prosper and organizations that are successful depend on the loyalty of the employees and those who purchase company products. According to Schneider (2006), "The people make the place" (p. 453). The results of multiple studies point to the value of companies cultivating employees, which can make a difference to the resulting loyalty of the customers they desire to serve (Ackerman & Schibrowsky, 2007; Bolton & Bolton, 1996; Thomas, 2002) .

As the majority of research suggested, alumni relationships are critical when examining the future funding of public research universities. Being able to identify the factors contributing to alumni loyalty and affinity is crucial for advancement in this arena.

Summary

After reviewing the literature, it is evident that public higher education institutions will need to continue to supplement government funding sources. One possibility is alumni from the institution. Many have an emotional attachment and are interested in continued involvement with their alma mater. Developing a loyal alumni base has endless potential for public higher

education. Active and engaged alumni are champions for the institution on many levels. Creating conditions that attract and invite involvement build loyal alumni. Building alumni loyalty begins when the individual is a student on campus. Creating opportunities for involvement and ownership, while cultivating the relationship with the student, are ways to begin the process of affinity development.

The literature is limited when exploring the experiences and attitudes of current students and undergraduate affinity development. Most of the research focused on alumni looking back at their experiences as students. Past researchers implored further study to explore present students' perceptions of their institution. Additionally, specific student characteristic categories deserve further exploration to determine the impact on affinity development. Both are the basis for this study.

CHAPTER 3: METHODOLOGY

With public higher education's financial support reductions, alternative methods to acquire funds must be applied by university administrators and development officers. Previous studies have demonstrated that alumni have the potential to be a financial resource when they possess an affinity or an emotional attachment to the institution. The purpose of this study is to identify undergraduate university experiences that affect institutional affinity.

Research Questions

The research questions were designed to explore the relationship between specific university experiences and student characteristics, and undergraduate institutional affinity. University experiences and student characteristics were used as independent variables. The research questions were:

1. What is the association between *university affinity* and each of the following: *teaching quality, student services opportunities, the quality of student services staff, the quality of facilities, student impressions, and extracurricular involvement*?
- 2: What is the association between *university affinity* and student characteristics of *classification level, resident status, sex or grade point average*?

A structured view of the two research questions and related methodological components, including the dependent variable, the independent variables, and the primary statistical techniques used to test each question, are provided in Table 1. The components are presented here in brief and will be discussed in depth later in this chapter.

Multiple linear regression was used to address each of the variable associations for research question 1 separately. A multiple regression is a statistical method used to study the relationship between a single dependent variable, and two or more predictor variables (Allison,

1999). For each regression, *university affinity* was the dependent variable. The analysis for research question 1 included the university experiences variables as well as demographic covariates identified in the preliminary analyses. Research question 2 included the student characteristics of classification level, resident status, sex, and GPA as predictors, as well as the demographic covariates. Although not presented in the results, each of the two multiple linear regressions was confirmed using multiple logistic regression comparing students with high versus low *university affinity*. The results of the logistic regressions confirmed the linear regressions.

Results were similar using both non-parametric and parametric methods for both preliminary and primary analyses. For ease of analysis, parametric measures were primarily applied. In the results section, if differences were identified, they are noted.

Table 1
Research Questions with Related Methodological Components

RQ	Independent Variable	Dependent Variable	Statistical Technique
1	University Experiences including; teaching quality, student services opportunities, student services staff, quality of facilities, student impressions, and extracurricular involvement	University Affinity	Multiple Linear Regression
2	Student Characteristics; Classification Level, Resident Status, Sex, G.P.A	University Affinity	Multiple Linear Regression

Research Design

This study employed a quantitative, correlation research approach. Correlation research studies are used to measure the relationship or association between two variables (Alreck & Settle, 2004). Three possible outcomes exist for a correlation study: positive, negative, and no correlation. Correlational studies only suggest a relationship between variables exist. This means that the technique cannot prove that one variable causes another variable to change (Creswell, 2009). Quantitative designs are used to support theory and are considered to be a deductive reasoning technique, while qualitative studies are inductive by nature. Deductive reasoning arrives at a specific conclusion based on generalizations, while inductive reasoning takes events and makes generalizations (Sternberg, Mio, & Mio, 2009). Given that the research questions were generated from theory, a deductive or quantitative approach is appropriate for this study.

Analysis Model

Multiple independent variables and a single dependent variable are specified in the model. The first set of independent variables is university experiences including: *teaching quality, student services opportunities, student services staff, quality of facilities, student impressions, and extracurricular involvement*. The second set of independent variables is student characteristics including: *classification level, resident status, sex, and grade point average*. An illustration of the model is demonstrated in Figure 3.1.

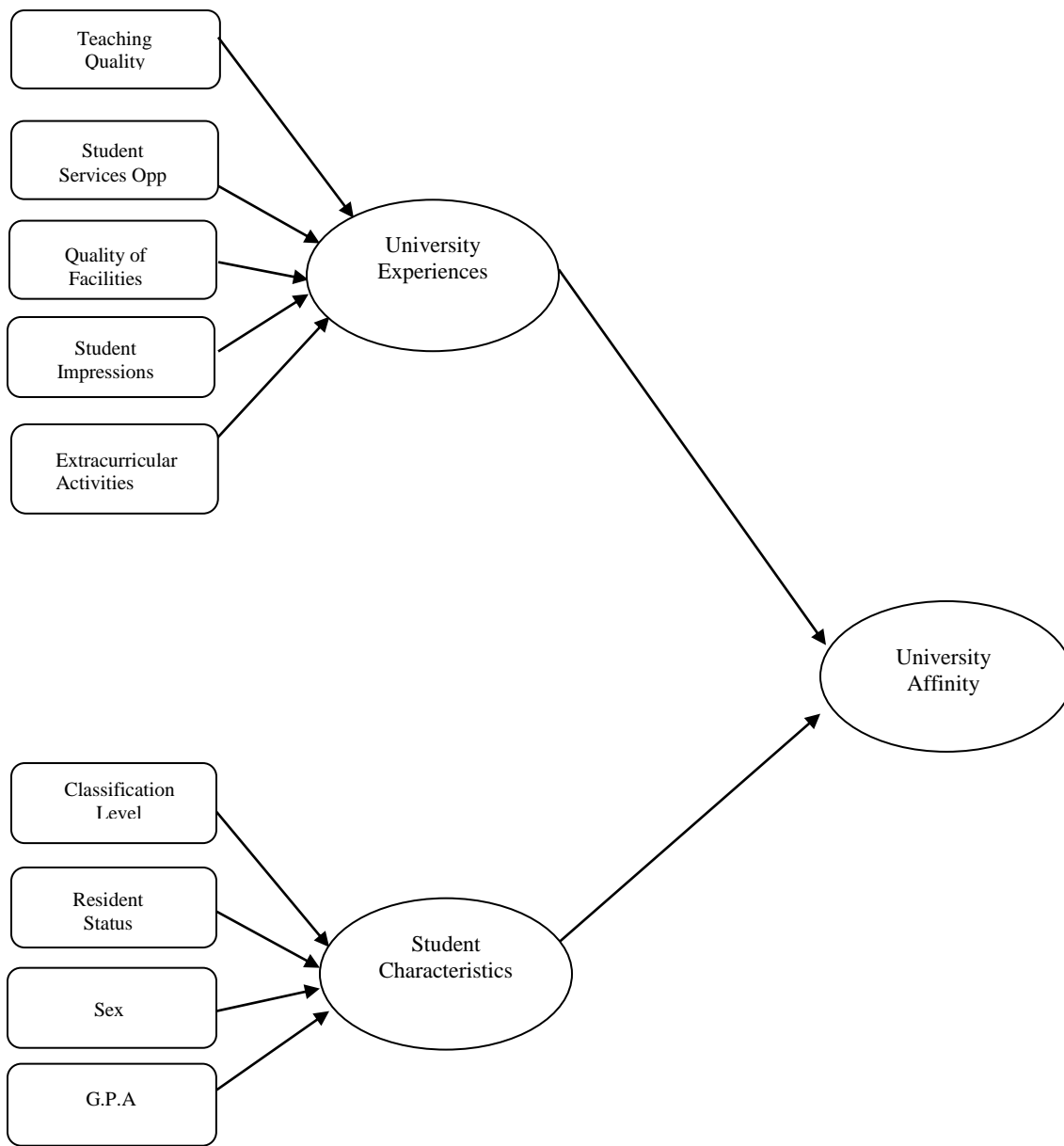


Figure 1 Relationship Model between predictor and dependent variables

Instrumentation

To respond to the research questions posed, a survey tool was developed. The “Relationship Quality of Student Affinity (RQSA)” instrument was the survey created for this study (see Appendix B). Fifty-one satisfaction specific questions and eleven demographic information questions were included in the instrument. The RQSA has nine distinct question sections based on the operationalized variables presented in the previous section. The section scores of learning gains, satisfaction and institutional fit were combined to create the dependent variable of *university affinity*.

Instrument development. The original scale, called the Relationship Quality-based Student Loyalty or RQSL (Hennig-Thurau et al., 2001), was developed for German universities. The instrument was created to assess loyalty for one’s institution and the psychometric properties were measured using a structural equation model. Helegsen and Nettet (2007) replicated the research in Norway using the same instrument and found similar results.

For applicability in the United States, two researchers at the University of Wisconsin-LaCrosse modified the scale by removing culturally specific items and renamed it the Student University Loyalty Instrument (SULI). Those researchers have administered it at four different institutions and are currently analyzing the results (Vianden & Bronkema, 2012). Both validity and reliability have been checked extensively. The items on the scale load to the respective factorial categories, therefore, inter-scale validity is strong and tests for reliability applying Cronbach’s alpha yielded a result of $\alpha = .94$ (Vianden et al., 2012). For the purpose of this study, there was additional slight modification to the SULI/RQSL. According to Litwin (1995), limited modifications would not impact the reliability of the instrument.

Population, Sample, and Sampling Method

Population. The population for the study consists of undergraduate students in the United States. According to the U.S. Department of Education, there were approximately 12 million students that fit this criterion in 2010 (Sciences, 2012). To be included in the population, undergraduate students must be at least 18 and not older than 25 years old. Further, only full-time students taking at least 12 credits at the institution are included in the study. Ethnicity and socioeconomic status was not a condition of inclusion.

Sample. The sample consisted of undergraduate students (freshmen, sophomores, juniors and seniors) recruited from a large public research institution in the Midwest. The population at the institution is approximately 29,000 undergraduate students. The resident to non-resident ratio is three to one. It was assumed that the demographic characteristics of the sample population replicated the overall general student population. To limit the scope of the research and reduce impact from confounding variables, students who were under the age of 18 or older than 25 were not recruited to take the survey. All students willing to participate in the study were encouraged to complete the survey provided they met the minimum inclusion criteria.

Sampling methodology. To obtain a confidence level of 95 percent and a confidence interval of four, with an estimated response rate of 15 percent, a sample size of roughly 4,000 was needed (DeVellis, 2011). Fifteen percent was chosen because it is considered acceptable for electronic surveys (Dillman, Smyth, & Christian, 2009). The stratified sample was selected to obtain a broad representative sample and included a variety of majors and ethnicities, and was not gender specific.

The students identified were sent a message inviting participation and two reminder messages encouraging participation in the study. The students were randomly selected from the undergraduate student population in a process developed by the university's registrar's office. The registrar's office supplied a list of email addresses that were immediately fed into the survey source. The survey was open for four weeks and concluded with an email of gratitude to all who participated.

Power Analysis

Three power analyses were conducted to determine the sample size needed for each of the research questions. For research question 1, a formal power analysis was conducted using the following parameters: (a) Test model: Linear multiple regression: Fixed model, R^2 deviation from zero with nine predictors; (b) Power = .95; (c) Effect size = .15; and (d) alpha = .05. Thus, using G*Power 3.0.10 (a sample size power analysis program), 166 participants were needed to produce an eighty percent probability of rejecting the null research question (Faul, Erdfelder, Lang, & Buchner, 2007)

For research question 2, applying the power analysis resulted in a minimum of 160 participants to conduct the analyses. The formal power analysis was conducted using the same parameters, except this test model had eight predictors instead of nine. Given that multiple power analyses were run, the largest minimum sample size was used as a target during data collection (Appendix A). A minimum of 166 participants was required to complete the survey in order to conduct the analyses.

Operationalization of Variables

Eleven variables in two groups were specified in the theoretical model. The first group was university experiences, which included: *teaching quality*, *student service opportunities*, *student services staff*, *quality of facilities*, *institutional impressions* and involvement in *extracurricular activities*. The second group was student characteristics of: *classification level*, *sex*, *resident status* and *GPA*. The dependent variable was *university affinity*.

University affinity. This factor was operationalized as one's sense of loyalty to the institution. Data were collected via the use of the Relationship Quality of Student Affinity (RQSA) instrument. Specifically, the first three sections of the survey were used including: learning gains, satisfaction, and institutional fit. The first 24 questions in the questionnaire measured university affinity. This variable was scaled at the interval level, where a 6-point Likert-type scale that ranged from low to high, with 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *slightly agree*, and 5 = *agree*, and 6 = *strongly agree* were used. As evidenced by the scale, a neutral response was not an option available to respondents for any variable.

Teaching quality. The quality of teaching was operationalized as the perceived instructional quality the student received. Data were collected via the use of the RQSA instrument. Questions 25-28 in the questionnaire measured this construct. This variable was scaled at the interval level, where a 6-point Likert-type scale that ranged from low to high, with 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *slightly agree*, and 5 = *agree*, and 6 = *strongly agree* were used.

Student services opportunities. Student services opportunities was defined as the overall perception of the quality of opportunities for student services support at the institution. Data were collected via the use of the RQSA instrument. Questions 29-31 in the questionnaire were used to measure student service opportunities. This variable was scaled at the interval level, where a 6-point Likert-type scale that ranged from low to high, with 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *slightly agree*, and 5 = *agree*, and 6 = *strongly agree* were used.

Student services staff. Student services staff was defined as the satisfaction level the student has interacting with student services staff at the university. Data were collected via the RQSA instrument. Questions 32-36 in the questionnaire were used to measure this variable. Student services staff was scaled at the interval level, where a 6-point Likert-type scale that ranged from low to high, with 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *slightly agree*, and 5 = *agree*, and 6 = *strongly agree* were used.

Quality of facilities. This was defined as the student perception of the overall quality of the campus facilities. Data were collected via the RQSA instrument. Questions 37-39 in the questionnaire were used to measure this variable. Quality of facilities was scaled at the interval level, where a 6-point Likert-type scale that ranged from low to high, with 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *slightly agree*, and 5 = *agree*, and 6 = *strongly agree* was used.

Impression about university. Impression about university was operationalized as the student's initial perceptions about the institution prior to deciding to attend. Data were collected via the use of the RQSA instrument. Questions 40-44 in the questionnaire measured this effect.

This variable was scaled at the interval level, where a 6-point Likert-type scale that ranged from low to high, with 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *slightly agree*, and 5 = *agree*, and 6 = *strongly agree* was used.

Extracurricular involvement. Extracurricular involvement was defined as out-of-classroom involvement. Data were collected via the use of the RQSA instrument. Questions 45-51 in the questionnaire measured this variable. This variable was scaled at the interval level, where a 6-point Likert-type scale that ranged from low to high, with 1 = *never*, 2 = *once a semester*, 3 = *once a month*, 4 = *twice a month*, and 5 = *once a week*, and 6 = *more than once a week* was used.

Classification level. Classification level was operationalized as the class the student believes s/he is a member of as a result of credits completed. Data was collected via the use of the RQSA instrument. Question 52 in the questionnaire collected this data. Classification level was scaled at the ordinal level: freshman, sophomore, junior, or senior.

Resident status. Resident status was defined as either an in-state student or an out-of-state student. Data was collected via the use of the RQSA instrument. Question 53 in the questionnaire collected this data. Resident status was scaled at the nominal level: in-state or out-of-state.

Sex. Sex was operationalized as traits or conditions that are linked to self-identifying as male or female (Gentile, 1993). Data was collected via the use of the RQSA instrument. Question 54 in the questionnaire collected this data. Sex was scaled at the nominal level: male or female.

Grade point average (GPA). GPA was operationalized as the point average calculated by dividing the total amount of grade points earned by the total amount of credit hours attempted. Data was collected via the use of the RQSA instrument. Question 58 in the questionnaire collected this data. GPA was scaled at the ordinal level.

Table 2 includes all independent and dependent variables. Although these components are discussed in the operationalization of variables section, the table offers a structured view. It presents the scale level for each variable and instrument questions they are linked to.

Table 2
Organization of Variables

Variable Type	Variable	Linked Question	Level of Scale
DV	University Affinity	Q1-24	Interval
IV	Teaching quality	Q25-28	Interval
IV	Student service opportunities	Q29-31	Interval
IV	Student service staff	Q32-36	Interval
IV	Quality of facilities	Q37-39	Interval
IV	Student impressions	Q40-44	Interval
IV	Extracurricular Involvement	Q45-51	Interval
IV	Classification Level	Q52 Fresh. Soph., Junior, Senior	Ordinal
IV	Resident Status	Q53 In-state-Out-state	Nominal
IV	Sex	Q54 Female, Male	Nominal
IV	Age	Q55	Ordinal
IV	Race	Q56	Ordinal
IV	International Student	Q57 Yes-No	Nominal
IV	GPA	Q58 Low-High	Interval
IV	Living Arrangement	Q59	Ordinal
IV	University Rank	Q60	Interval
IV	Hours worked	Q61	Interval
IV	Grant/Scholarship \$	Q62	Ordinal

Pilot Study

A pilot study was conducted in fall 2012 to measure the internal consistency of the RQSA instrument. A factorial analysis was conducted with a resulting $\alpha = .91$, which is

considered acceptable. In addition, feedback was requested about the instrument, with minor adjustments made prior to distribution for the actual study.

Validity

Data integrity, validity and reliability of the instrument used to collect data were assumed. That is, the design was appropriate for the study, the sample was assumed to be representative of the population, sample methodology did not contain biases, and the statistical procedures were applicable for what was being analyzed. Data collection was appropriate and the instrument was assumed to accurately measure what it was supposed to measure.

Ethical Considerations

Institutional review board approval was granted for the study (see Appendix C). Ethical considerations included the participant's right to anonymity. No identifying information was used. The risk level to participants was considered to be minimal. Further, during the data collection and before the data analysis process, each participant's results were coded numerically to prevent identification.

Data Collection

Invitations to participate were sent to 4,000 randomly selected students through their official university email address. The email addresses were randomly identified by the registrar's office and sent to the researcher. Following institutional guidelines, invitations included the rationale for the survey and the overall benefit to the institution for participation, along with the link to the instrument (see Appendix D). The survey remained open for four weeks and two reminder messages (Appendices E and F) were sent along with a message of gratitude to all participants at the close of the survey (Appendix G).

Data Analysis

The overall survey response rate for the web survey was 14 percent, which is considered average and is adequate for the analyses conducted (Messer & Dillman, 2011). A total of 585 participants began the survey, but twenty were removed for lack of consent, one was removed because the same answer was given for every question, and another respondent did not answer a single question after giving consent. This resulted in a final sample size of 561.

Both non-parametric and parametric tests were conducted on the data to address the research questions. The results from both were similar; therefore, parametric tests were applied throughout the analysis. Multiple regression analyses were applied to both research questions with the significance set at the $p < .05$ level.

The analysis procedure was conducted using the Statistical Package for the Social Sciences (SPSS) software program, Student Version 19.0. Results will be presented in three discrete sections in Chapter 4. These sections include the demographic information, preliminary analysis, and finally the primary analysis. The demographic information will identify the population characteristics of the completed surveys. The preliminary analysis section presents descriptive statistics of each variable and explores the bivariate relationships between each variable in the study. These analyses include cross tabulations with chi-square tests, one-way analysis of variance (ANOVA's), and Pearson's correlation coefficients. The primary analysis was conducted to gain a thorough understanding of the data as well as to identify covariates that needed to be included in the primary analysis of the research questions. The primary analysis presents the findings of the multiple regression analyses conducted to address each of the two research questions. The summary will include a review of the study, the design used, and results by each research question.

This data analysis will include descriptive statistics, means, standard deviation, and frequency where applicable. For this analysis, the alpha was set at $\alpha = .05$. Findings with a p value below .05 are presented as insignificant.

Profile of sample. Seven variables, including: age, race, international student status, living arrangement, university rank, number of hours working on campus, and the amount of scholarships/grants that each respondent reported receiving were used to profile participants. The information reported includes frequency count by group level (if appropriate), mean, standard deviation, and the total number of respondents (N). SPSS/EXPLORE and SPSS/DESCRIPTIVE were used to derive the aforementioned information.

Outliers. A test for univariate outliers was conducted to determine if any cases may not statistically be part of the sample collected. To detect outliers, case scores were converted into z -scores and compared to the critical value of ± 3.29 , $p < .001$ (Tabachnick & Fidell, 2007). Cases that exceed this value were removed. Provided they warranted removal.

Missing data. Cases with missing data were detected by running frequency counts in SPSS 19.0. Cases with missing data on more than five percent of the items were summarily removed from further analysis. Cases with missing data in less than five percent of the items were kept by imputing field means into the empty cell.

Parametric assumptions. The data were checked for outliers and the distribution of all interval data was checked for normality. Due to slightly skewed data, all parametric findings were confirmed with non-parametric tests. The findings of the two methods were largely the same. Thus, the parametric findings are presented and non-parametric results are discussed only when they were different from the parametric results.

Order of analyses. The data were analyzed in four steps. First, the demographic data was presented to construct a profile of the sample population tested. Step two identified missing data and outliers, with the data being dealt with according to the prescription presented. Normality was evaluated in step three to ensure parametric assumptions were met. And finally, a multiple regression was used in step four to determine if relationships existed between the stated variables.

Limitations

The primary limitation to the study is the use of an electronic survey instrument. Electronic surveys are easy to administer and are cost effective, but it is recommended to exercise caution when administering them (Dillman et al., 2009). A better option would be mixed modes, using both the postal service and an electronic instrument, whereby the resulting response rate tends to be at least five percentage points higher (Dillman et al., 2009). Voluntary participation intrinsically increases the likelihood of honest responses provided by participants.

While it may be appropriate to apply the results to the sample population, it may not be an accurate assumption of all undergraduate students attending other institutions in other parts of the United States. Unknown variables in the study could affect responses (DeVellis, 2011). The researcher may not know these variables at the time of the study.

Summary

Affinity is the primary construct measured in this study. Opportunities for institutions to cultivate future involved and engaged alumni may be found in exploring what contributes to the perception of affinity and enhancing the undergraduate experience for students. This chapter described the research methodology that was used to accomplish this purpose. Additionally, this chapter also described the sample, data collection procedures, and data analysis. Finally, ethical

considerations were addressed to ensure confidentiality and protection of participants. Chapter 4 will include a description of the data collected, the data analysis procedures, and the results of the study as they pertain to the research questions. Chapter 5 will discuss the significant findings, implications of the findings, limitations of the study, and suggestions for future research.

CHAPTER 4: RESULTS

This study explored the relationship between specific university experiences and student demographics and their relationship to undergraduate institutional affinity. The research design utilized a quantitative, correlational approach to addressing the research questions. The results are divided into three major sections: the descriptive analysis, the preliminary analysis, and the primary analysis. The descriptive section presents the descriptive statistics of the variables. The preliminary analysis section demonstrates the bivariate relationships among variables. These analyses were done in order to gain a comprehensive understanding of the data, as well as to identify potential covariates that should be included in the primary analysis. The primary analysis section presents the analyses conducted to address each research question. The alpha level for the study was set at $\alpha = .05$. Any findings with p -values of less than .05 are presented as non-significant.

Research Questions

The following questions were the basis for the study:

1. What is the association between *university affinity* and each of the following: *teaching quality, student services opportunities, the quality of student services staff, the quality of facilities, student impressions, and extracurricular involvement?*
2. What is the association between *university affinity* and student demographic characteristics of *classification level, resident status, sex or GPA?*

Descriptive Analysis

Descriptive statistics are presented for the demographic characteristics of the sample as well as for the independent variables for each of the two research questions. The frequencies

and percentages of the demographic variables are shown in Table 3. The table also highlights the comparable data at the university studied to compare the response numbers. Out of the 539 respondents, an overwhelming majority (88.5 percent) identified themselves as White, while Asians were the second largest ethnic subgroup comprising 5.3 percent of the sample. The sample also contained a small number of African Americans (.8 percent), Hispanics (1.7 percent), Native Hawaiians and Pacific Islanders (.2 percent) and 16 people, the equivalent of three percent, who associated themselves with two or more ethnicities. As a comparison, in 2012 at the institution studied, 79.5 percent of the students identify as White and 6.1 percent identify as Asian. The percentages of African American (2.8 percent), Hispanic (4.2 percent), and Native Hawaiians and Pacific Islanders (.3 percent) represent the official percentages of ethnicity at the institution studied.

Almost half of the sample (47 percent) was 18-19 years old, 41.1 percent were 20-21, and 11.1 percent were 22-23. A minimal percentage of respondents (.7 percent) were 24 or older.

Only 2.8 percent of the respondents were international students, the rest identified being domestic students. At the institution sampled for 2012, the international student population was 6.8 percent of the student body. The majority of the respondents (53.8 percent) lived off campus with roommates, 38.6 percent lived inside university residence halls, and a small proportion (6.5 percent) lived alone off-campus. Only 1.1 percent lived with their parents.

A majority of the respondents (70.5 percent) expressed that the institution was their first choice as a school, 17.8 percent marked the university as their second choice, and 5.4 percent their third. Only 3.9 percent indicated that the school was their fourth or lower choice or not on their list (2.4%).

A majority (57.3 percent) worked one to five hours per week on campus, while 17.3 percent worked six to ten hours, and another 16 percent worked 16-20 hours. Few (2.8 percent) of the respondents indicated that they worked 21 hours or more. A majority of the respondents (72.0 percent) were receiving between \$0 -\$5,000 in scholarship money, 15 percent were receiving \$5,000-\$10,000, 7.1 percent were receiving \$10,000-\$15,000, and only 5.9 percent received more than \$15,000.

Table 3
Frequencies and Percentages of the Demographic Variables of Ethnicity, Age, International Student, Living Arrangement, Rank of University Choice, On-Campus Work Hours, and Scholarship Amount

	<i>n</i>	%
Ethnicity		
African American	4	.8
American Indian	3	.6
Asian	28	5.3
Hispanic	9	1.7
Native Hawaiian/Pacific Islander	1	.2
Two or More Ethnicities	16	3.0
White	468	88.5
Age		
18–19 Years	254	47.0
20–21 Years	222	41.1
22–23 Years	60	11.1
24 Years or Older	4	.7
International Student		
Yes	15	2.8
No	524	97.2
Living Arrangement		
On Campus–Residence Hall	208	38.6
Off Campus–By Myself	35	6.5
Off Campus With Roommates	290	53.8
Off Campus With Parents/Guardians	6	1.1
Rank of University Choice		
It Was Not on My List	13	2.4
1st Rank	380	70.5

2nd Rank	96	17.8
3rd Rank	29	5.4
4th Rank	10	1.9
5th Rank or Lower	11	2.0
On-Campus Work Hours		
1–5 Hours	309	57.3
6–10 Hours	93	17.3
11–15 Hours	86	16.0
16–20 Hours	36	6.7
21–25 Hours	7	1.3
26–30 Hours	5	.9
More Than 30 Hours	3	.6
Scholarship Amount		
0–\$5,000	388	72.0
\$5,000–\$10,000	81	15.0
\$10,000–\$15,000	38	7.1
More Than \$15,000	32	5.9

Note. Frequencies not summing to $N = 561$ reflect missing data.

Bivariate relationships between demographic variables were analyzed using cross tabulations with Pearson’s Chi-square. The purpose of conducting these analyses was to check for significant relationships among demographic characteristics and also to test for any issues that might influence the validity of the data. A significant relationship between living arrangement and age was found ($\chi^2 (1) = 216.35, p < .001, \text{Cramer's } V = .634$). A higher proportion of 18-19-year-olds lived on campus compared to 20 and older (71.3 percent and 9.5 percent respectively). This significant relationship is conceptually logical and does not call the validity of the data into question. The full set of analyses is shown in Appendix H.

Descriptive data for independent variables. Table 4 shows the descriptive data for the six independent variables related to university experience. As shown, *teaching quality* scores ranged from 1.5 to 6, with a mean of 5.05 ($SD = .74, \text{Median} = 5.00$). *Student service opportunity* scores ranged from 1.67 to 6, with a mean of 5.13 ($SD = .82, \text{Median} = 5.30$).

Student services staff scores were between 1 and 6, with a mean of 4.89 ($SD = .86$, $Median = 5.00$). *Quality of facility* scores ranged between 2 and 6 with a mean of 4.94 ($SD = .85$, $Median = 5.20$); while *Student impression* scores were all between 1 and 6, with a mean of 5.10 ($SD = .80$, $Median = 5.20$). Finally, *extracurricular involvement* scores ranged from 1.43 to 6, with a mean and median of 4.00 ($SD = .81$).

Table 4

Means and Standard Deviations of the Continuous Independent Variables of Teaching Quality, Student Services Opportunities, Student Services Staff, Quality of Facilities, Student Impressions, and Extracurricular Involvement Scores

	<i>N</i>	Mean	<i>SD</i>	Med	Min	Max
Teaching Quality	550	5.05	.74	5.0	1.5	6
Student Services Opportunities	540	5.13	.82	5.3	1.67	6
Student Services Staff	529	4.89	.86	5.0	1	6
Quality of Facilities	542	4.94	.85	5.0	2	6
Student Impressions	542	5.10	.80	5.2	1	6
Extracurricular Involvement	542	4.00	.81	4.0	1.43	6

Preliminary Analysis

The relationships between each of the independent variables used for research question 1 and the demographic variables were analyzed using four separate MANOVA tests; one for each demographic variable. The six university experience variables were used as the dependent variables in each MANOVA. The full set of analyses is shown in Appendix H.

The analyses were conducted in order to identify potential covariates that should be included in the analysis of the research questions. The findings revealed that age is related to several university experience variables, including *student services opportunities* and *student impressions*. Younger students had higher scores than older students.

The university experience variables were also significantly related to rank of university. Students who ranked the university first on their list had significantly higher scores for *student services opportunities*, *student services staff*, *quality of facilities*, and *student impressions* compared to students who did not rank the university first on their list.

Finally, although the multivariate relationship between the university experiences variables and living arrangement was not significant, examination of the univariate effects did reveal that living arrangement was significantly related to *student services opportunities* and *quality of facilities*; with students who lived off campus having higher scores than those who lived on campus. Overall, these findings suggest that age and rank of university should be considered covariates in the analysis of the first research question and that living arrangement should be considered for inclusion as well.

Table 5 shows the frequencies and percentages of the independent variables used in research question 2. The distribution of *classification level* appeared to be almost uniform with close to a quarter of respondents in each of the four levels. A much larger proportion of the

respondents were in-state students (71.7 percent) and the majority was also female (69.3 percent). *GPA*s results showed that 39.3 percent of respondents had *GPA*s between 3.5 and 4.0; 39.1 percent between 3.1 and 3.5; 17.6 percent between 2.6 and 3.0; and 4 percent had a 2.5 or below.

Table 5
Frequencies and Percentages of the Categorical Independent Variables of Sex, Classification Level, Resident Status, and GPA

	<i>n</i>	%
Classification Level		
Freshman	160	29.6
Sophomore	121	22.4
Junior	122	22.6
Senior	137	25.4
Resident Status		
In State	387	71.7
Out of State	153	28.3
Sex		
Female	374	69.3
Male	166	30.7
GPA		
0–1.5	3	.6
1.6–2.0	2	.4
2.1–2.5	16	3.0
2.6–3.0	95	17.6
3.1–3.5	211	39.1
3.5–4.0	212	39.3

Note. Frequencies not summing to $N = 561$ reflect missing data.

The relationships between each of the independent variables used for research question 2 and the demographic variables were analyzed using a series of cross tabulations with Pearson's

Chi-square. The analyses were conducted in order to identify potential covariates that should be included in the analysis of the research questions, and are shown in Appendix H. The findings revealed that age was significantly related to *GPA* and *classification level*. The findings also revealed that living arrangement was significantly related to *GPA*, and *classification level*. Finally, rank of university choice was significantly related to *resident status*. Overall, these findings suggest that age, living arrangement, and rank of university should be considered covariates in the analysis of the second research question.

Relationships between independent variables. The bivariate relationships between the university experiences variables were examined using Pearson's correlation coefficients in order to test for potential problems in the data. Such as, variables being so highly correlated that they are conceptually indistinct from each other, or negative relationships where positive relationships were expected. Each of the subscale scores represents a dimension of university experiences, therefore, the correlations among variables were expected to be in the positive direction and significantly correlated with each other.

Table 6 displays the Pearson correlations among the six university experience subscale scores of: *teaching quality*, *student services opportunity*, *student services staff*, *quality of facilities*, *student impressions* and *extracurricular involvement*. As can be seen in the table, all variables were significantly correlated in the positive direction at the .01 level. Positive correlation coefficients indicate that respondents with higher scores on one variable tended to also score high on the other variable. The largest correlation was between *teaching quality* and *student services staff* ($r = .601$), followed by the correlation between *student services opportunities* and *student services staff* ($r = .519$). The correlations were all in the expected range as was the pattern of the correlations.

Table 6

Pearson's Product Moment Correlations among Teaching Quality, Student Services Opportunities, Student Services Staff, Quality of Facilities, Student Impressions, and Extracurricular Involvement

	Teaching Quality	Student Services Opportunities	Student Services Staff	Quality of Facilities	Student Impressions
Student Services Opportunities	.458 **				
Student Services Staff	.601 **	.519 **			
Quality of Facilities	.478 **	.547 **	.455 **		
Student Impressions	.370 **	.445 **	.437 **	.369 **	
Extracurricular Involvement	.165 **	.226 **	.251 **	.135 **	.237 **

Note. ** $p < .01$

The variables used as independent variables in research question 2 were examined using a series of cross tabulations with Pearson's Chi-square. These analyses were conducted to test for any unexpected relationships among these independent variables, which could cause issues in the analysis of the research question.

Table 7 displays the relationship between *sex*, and the variables *resident status*, *GPA* and *classification* using cross tabulations and Pearson's Chi-square test. As shown, the relationship between *sex* and *GPA*, was significant ($\chi^2(3) = 8.48, p = .037$, Cramer's $V = .125$). A greater proportion of male respondents (7.2 percent) had *GPA*s below 2.5 compared to female respondents (2.4 percent). Also, a higher percentage of female respondents had *GPA*s between

3.1 and 3.5 compared to male respondents (41.0 percent 34.9 percent, respectively). The differences for *GPA*s ranging between 2.5-3.1 and 3.5-4.0, however, were not statistically significant. In addition, *sex* had no significant relationship with either *resident status* or *classification level* (*p*-values for the χ^2 test equal .530 and .906; and Cramer's *V*'s .027 and .032, respectively).

Table 7
Frequencies and Percentages for Resident Status, GPA, and Classification Level by Sex

	Sex				χ^2	<i>p</i>
	Female		Male			
	<i>n</i>	%	<i>n</i>	%		
Resident Status					.39	.530
In State	265	70.9	122	73.5		
Out of State	109	29.1	44	26.5		
GPA					8.48	.037
0–2.5	9	2.4	12	7.2		
2.6–3.0	68	18.2	27	16.3		
3.1–3.5	153	41.0	58	34.9		
3.6–4.0	143	38.3	69	41.6		
Classification Level					.56	.906
Freshman	113	30.2	47	28.3		
Sophomore	81	21.7	40	24.1		
Junior	86	23.0	36	21.7		
Senior	94	25.1	43	25.9		

Cross tabulations and Pearson's Chi-square tests were conducted to test the relationship between *resident status* and the other categorical independent variables. None of the relationships between *resident status* and the variables *sex*, *GPA* and *classification level* were statistically significant (all *p* > .05).

Table 8 displays the relationship between *GPA* and the three variables *sex*, *resident status*, and *classification level* using cross tabulations and Pearson's Chi-square test. As shown, the relationship between *GPA* and *sex* was statistically significant ($\chi^2(3) = 8.48, p = .037$, Cramer's $V = .125$), where females represented 42.9 percent of respondents with a *GPA* below 2.5, 71.6 percent of those with a *GPA* between 2.6-3.0, 72.5 percent of those with a *GPA* between 3.1-3.5, and 67.5 percent of those with a *GPA* above 3.6.

The relationship between *GPA* and *classification level* was also significant ($\chi^2(9) = 27.29, p = .001$, Cramer's $V = .130$). Among respondents for each *GPA* group, freshmen represented 28.6 percent of the respondents who were below 2.5; 12.6 percent of those with *GPA* between 2.6-3.0; 32.2 percent with *GPA* between 3.1-3.5; and 34.9 percent with *GPA* between 3.6-4.0. Sophomores represented: 38.1 percent of respondents with *GPA* between 0-2.5; 24.2 percent of those with *GPA* between 2.6-3.0; 26.5 percent with *GPA* between 3.1-3.5; and 16 percent of those with *GPA* between 3.6-4.0. Juniors represented: 14.3 percent of respondents with *GPA* between 0-2.5; 30.5 percent of those with *GPA* between 2.6-3.0; 19 percent of those with *GPA* between 3.1-3.5; and 23.1 percent of those with *GPA* between 3.6-4.0. Finally, seniors represented: 19 percent of respondents with *GPA* between 0-2.5; 32.6 percent between 2.6-3.0; 22.3 percent between 3.1-3.5; and 25.9 percent between 3.6-4.0.

Table 8
Frequencies and Percentages for Sex, Resident Status, and Classification Level by GPA

	GPA								χ^2	<i>p</i>
	0–2.5		2.6–3.0		3.1–3.5		3.6–4.0			
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
Sex									8.48	.037
Female	9	42.9	68	71.6	153	72.5	143	67.5		
Male	12	57.1	27	28.4	58	27.5	69	32.5		
Resident Status									1.06	.788
In State	15	71.4	72	75.8	148	70.1	151	71.2		
Out of State	6	28.6	23	24.2	63	29.9	61	28.8		
Classification Level									27.29	.001
Freshman	6	28.6	12	12.6	68	32.2	74	34.9		
Sophomore	8	38.1	23	24.2	56	26.5	34	16.0		
Junior	3	14.3	29	30.5	40	19.0	49	23.1		
Senior	4	19.0	31	32.6	47	22.3	55	25.9		

Table 9 displays the relationship between *classification level* and the variables *sex*, *resident status* and *GPA* using cross tabulations and Pearson’s Chi-square test. The first two relationships were not significant ($\chi^2(3) = .56, p = .906$, Cramer’s $V = .032$; $\chi^2(3) = 3.91, p = .271$, Cramer’s $V = .085$, respectively). The latter relationship between *classification level* and *GPA*, however, was significant ($\chi^2(9) = 27.29, p = .001$, Cramer’s $V = .130$). A lower proportion of sophomore respondents had *GPA* between 3.6-4.0 (28.1 percent) compared to freshmen (46.3 percent), junior (40.5 percent) and senior (40.1 percent) respondents.

Table 9
Frequencies and Percentages for Sex, Resident Status, and GPA by Classification Level

	Classification Level								χ^2	p
	Freshman		Sophomore		Junior		Senior			
	n	%	n	%	n	%	n	%		
Sex									.56	.906
Female	113	70.6	81	66.9	86	70.5	94	68.6		
Male	47	29.4	40	33.1	36	29.5	43	31.4		
Resident Status									3.91	.271
In State	112	70.0	83	68.6	96	78.7	96	70.1		
Out of State	48	30.0	38	31.4	26	21.3	41	29.9		
GPA									27.29	.001
0–2.5	6	3.8	8	6.6	3	2.5	4	2.9		
2.6–3.0	12	7.5	23	19.0	29	24.0	31	22.6		
3.1–3.5	68	42.5	56	46.3	40	33.1	47	34.3		
3.6–4.0	74	46.3	34	28.1	49	40.5	55	40.1		

The complete relationships between the independent variables for both research questions are shown in Appendix H. The statistically significant results show that female students had higher scores for *student services staff* than males. Students living out-of-state rated *student services staff* higher than students living in state. However in-state students had higher scores for *student impressions* compared to those from out-of-state. Students with a relatively low GPA (2.6-3.0) had lower scores for *student services opportunities* compared to students with either very low GPA (0-2.5) or higher GPA (3.1 and above). *Classification level* was related to *student services opportunities*, *student services staff*, and *student impressions*. For all three variables, freshman had the highest scores and seniors had the lowest scores.

Descriptive statistics of dependent variable. Table 10 displays descriptive information for the dependent variable *university affinity*, showing that among a total of 561 respondents, scores ranged between 1.63 to 6, with a mean of 4.87 ($SD = .80$) and a median of 5.1. *University affinity* was a combined score of three subscales: institutional fit, learning gains and overall satisfaction.

Table 10
Mean and Standard Deviation of the Continuous Dependent Variable of Relationship Quality of University Affinity

	<i>N</i>	Mean	<i>SD</i>	Med	Min	Max
University Affinity	561	4.87	.80	5.1	1.63	6

Relationships between demographic and dependent variables. To demonstrate the impact of potential covariates on the outcome variable of *university affinity*, Table 11 shows effects of the variables age, living arrangement, rank of university choice and scholarship amount on the dependent variable *university affinity* using one-way ANOVA models. The only significant effect found in the results was for rank of university choice ($F(1,537) = 20.24, p < .001$, partial $\eta^2 = .036$). The average score for respondents who expressed that the institution was their first school of choice was significantly higher compared to those who expressed otherwise ($M = 4.97, SD = .72$ compared to $M = 4.63, SD = .92$).

Table 11

Means and Standard Deviations for Relationship Quality of University Affinity by Age, Living Arrangement, Rank of University Choice, and Scholarship Amount

	<i>n</i>	Mean	<i>SD</i>	<i>F</i>	<i>p</i>
University Affinity				.66	.415
18–19 Years	254	4.90	.74		
20 Years or Older	286	4.84	.85		
University Affinity				.31	.579
Live On Campus	208	4.84	.77		
Live Off Campus	331	4.88	.82		
University Affinity				20.24	<.001
University was 1st Rank	380	4.97	.72		
Not 1st on List	159	4.63	.92		
University Affinity				2.57	.078
Scholarship \$0–\$5,000	388	4.91	.76		
Scholarship \$5,000–\$10,000	81	4.77	.90		
Scholarship More Than \$10,000	70	4.71	.88		

Relationships between independent and dependent variables. Table 12 displays the relationships between variables for research question 1. The Pearson correlations between *university affinity* and the variables: *teaching quality*, *student services opportunity*, *student services staff*, *quality of facilities*, *student impressions*, and *extracurricular involvement* are displayed accordingly. All correlations, as indicated by an asterisk in the table, are significant at the .01 level and positive. This points to the fact that respondents who scored high on any of the variables also scored high on the variable *university affinity*.

Table 12

Pearson's Product Moment Correlations Among Teaching Quality, Student Services Opportunities, Student Services Staff, Quality of Facilities, Student Impressions, and Extracurricular Involvement With University Affinity

	University Affinity
Teaching Quality	.441 **
Student Services Opportunities	.477 **
Student Services Staff	.555 **
Quality of Facilities	.397 **
Student Impressions	.582 **
Extracurricular Involvement	.453 **

Note. ** $p < .01$

Similarly, for research question 2, Table 13 displays the univariate effects of *sex*, *resident status*, *GPA*, and *classification level* on *university affinity* using one-way ANOVA models. The results indicate that only the variable *GPA* had a significant effect on *university affinity* ($F(3, 535) = 4.00, p = .008$, partial $\eta^2 = .022$). Respondents with *GPA*s ranging from 3.1-3.5 had significantly greater *university affinity* score ($M = 4.99, SD = .69$) compared to those with *GPA* 2.6-3.0 ($M = 4.69, SD = .89$).

Table 13

Means and Standard Deviations for Relationship Quality of University Affinity by Sex, Resident Status, GPA, and Classification Level

	<i>n</i>	Mean	<i>SD</i>	<i>F</i>	<i>p</i>
University Affinity				1.61	.205
Female	374	4.90	.79		
Male	166	4.80	.83		
University Affinity				2.59	.108
Resident Status: In State	387	4.83	.82		
Resident Status: Out of State	153	4.96	.73		
University Affinity				4.00	.008
GPA 0–2.5	21	4.60 ^{ab}	.91		
GPA 2.6–3.0	95	4.69 ^a	.89		
GPA 3.1–3.5	211	4.99 ^b	.69		
GPA 3.6–4.0	212	4.85 ^{ab}	.84		
University Affinity				1.53	.206
Freshman	160	4.89	.75		
Sophomore	121	4.90	.76		
Junior	122	4.73	.92		
Senior	137	4.93	.77		

Note. Means with different superscripts differ significantly, $p < .05$.

To summarize the preliminary analysis, the six university experience subscales were significantly correlated in a positive direction at the .01 level. Through further analysis, the results for research question 1, illustrated that the covariates of age, rank of the university, and living arrangement impacted a number of the independent variables. Similarly, for research question 2, the covariates of age, rank of university, and living arrangement were significantly related to several of those independent variables. To control for the effect of the covariates, the block method will be used in the primary analysis of the research questions.

Primary Analysis

Research question 1. Table 14 shows the results for a multiple regression model using the block method entry to predict *university affinity* using the university experience variables. *Teaching quality, student services opportunity, student services staff, quality of facilities, student impressions* and *extracurricular involvement* were entered in Block 1; the covariates identified in the preliminary analysis (age, living arrangement and rank of university choice) were added into Block 2 to control for their effects in the analysis. The standardized betas are discussed as they allow direct comparison among the predictors. The unstandardized β 's shown in the table reflect the amount of change expected in the predictor with a one-point increase in the *university affinity* score.

The second model, which included the covariates, was statistically significant ($F(9, 503) = 65.73, p < .001$) and explained the greatest amount of variance ($R^2 = .532$). This was significantly more than the first model, which did not include the three covariates (R^2 change = .008, $p = .041$). The results from this model suggest that the variables *student services opportunities* ($Beta = .103, p = .012$), *student services staff* ($Beta = .236, p < .001$), *student impressions* ($Beta = .321, p < .001$), *extracurricular involvement* ($Beta = .257, p < .001$), and living arrangement (on-campus; $Beta = -.088, p = .027$) were significant predictors of *university affinity*. The positive Betas for *student services opportunities, student services staff, student impressions* and *extracurricular involvement* indicate that higher scores on each variable resulted in higher *university affinity*. The negative Beta for living arrangement (on-campus) indicates that respondents living on-campus had less *university affinity* compared to those living off-campus. Multicollinearity was tested by computing the variance inflation factor (VIF) associated with each predictor variable. All VIF's are less than 3.0, indicating no potential issue

of multicollinearity in the model. Potential issues with multicollinearity should be examined when VIF is greater than 5.0 (Craney & Surles, 2002).

Table 14

Multiple Regression Analysis Predicting Relationship Quality of University Affinity From Teaching Quality, Student Services Opportunities, Student Services Staff, Quality of Facilities, Student Impressions, and Extracurricular Involvement

	Unstandardized		Standardized		<i>t</i>	<i>p</i>	VIF
	<i>β</i>	<i>SE</i>	<i>Beta</i>				
Block 1							
Teaching Quality	.067	.04	.062	1.55	.122	1.75	
Student Services Opportunities	.097	.04	.099	2.44	.015	1.79	
Student Services Staff	.214	.04	.231	5.53	<.001	1.90	
Quality of Facilities	.051	.04	.054	1.39	.165	1.62	
Student Impressions	.333	.04	.333	9.27	<.001	1.40	
Extracurricular Involvement	.258	.03	.259	8.14	<.001	1.10	
Block 2							
Teaching Quality	.069	.04	.064	1.59	.112	1.78	
Student Services Opportunities	.100	.04	.103	2.53	.012	1.79	
Student Services Staff	.218	.04	.236	5.65	<.001	1.90	
Quality of Facilities	.055	.04	.059	1.53	.128	1.62	
Student Impressions	.321	.04	.321	8.28	<.001	1.65	
Extracurricular Involvement	.256	.03	.257	8.09	<.001	1.11	
20 Years or Older (vs. younger)	-.015	.06	-.009	-.23	.820	1.75	
On Campus (vs. off campus)	-.144	.07	-.088	-2.22	.027	1.73	
1st Rank (vs. not 1 st rank)	.049	.06	.028	.84	.403	1.20	

Note. Block One: $F(6, 506) = 96.20, p < .001, \text{adj. } R^2 = .527$; Block Two: $F(9, 503) = 65.73, p < .001, \text{adj. } R^2 = .532$; R^2 Change: $F(3, 503) = 2.78, p = .041, \text{adj. } R^2 = .008$.

Research question 2. Table 15 shows the results of a multiple regression model, fitted using the block method entry to predict *university affinity* using student characteristic variables. *Classification level*, *resident status*, *sex* and *GPA* were entered in Block 1. Living arrangement and rank of university choice were added in Block 2 in order to control for the effect of these covariates on the outcome of *university affinity*. Age was not included because the strong relationship between age and classification introduced multicollinearity into the model. The second model was statistically significant ($F(11, 528) = 4.44, p < .001$), but explained only six percent of the total variance ($adj. R^2 = .060$), which was still significantly more than the first model (R^2 change = .042, $p < .001$). The results for this model suggest that only *resident status* (in-state; $Beta = -.085, p = .047$) and rank of university choice (1st Rank; $Beta = .198, p < .001$) were significant predictors of *university affinity*. The negative Beta sign for *resident status* (in-state) suggests that in-state respondents had less *university affinity* compared to out-of-state respondents, while the positive Beta sign for rank of university choice (1st Rank) implies that respondents whose first choice had been the institution studied had higher levels of *university affinity*. All VIF's are less than 3.2, indicating no potential issues of multicollinearity in the model.

Table 15

Multiple Regression Analysis Predicting Relationship Quality of University Affinity from Classification level, Resident Status, Sex and GPA

	Unstandardized		Standardized		<i>p</i>	VIF
	β	<i>SE</i>	<i>Beta</i>	<i>t</i>		
Block 1						
Sophomore (vs. Freshman)	.027	.10	.014	.28	.777	1.40
Junior (vs. Freshman)	-.125	.10	-.065	-1.29	.196	1.40
Senior (vs. Freshman)	.068	.09	.037	.73	.467	1.42
In State (vs. Out of State)	-.102	.08	-.058	-1.34	.180	1.01
Female (vs. Male)	.076	.08	.044	1.02	.311	1.02
GPA 0–2.5 (vs. GPA 3.6–4.0)	-.244	.18	-.059	-1.33	.184	1.08
GPA 2.6–3.0 (vs. GPA 3.6–4.0)	-.152	.10	-.072	-1.53	.126	1.23
GPA 3.1–3.5 (vs. GPA 3.6–4.0)	.129	.08	.079	1.66	.098	1.23
Block 2						
Sophomore (vs. Freshman)	-.074	.12	-.039	-.63	.527	2.16
Junior (vs. Freshman)	-.245	.13	-.128	-1.86	.064	2.71
Senior (vs. Freshman)	-.068	.14	-.037	-.50	.617	3.11
In State (vs. Out of State)	-.150	.08	-.085	-1.99	.047	1.03
Female (vs. Male)	.064	.07	.037	.88	.381	1.02
GPA 0–2.5 (vs. GPA 3.6–4.0)	-.209	.18	-.050	-1.16	.247	1.09
GPA 2.6–3.0 (vs. GPA 3.6–4.0)	-.188	.10	-.090	-1.93	.054	1.24
GPA 3.1–3.5 (vs. GPA 3.6–4.0)	.105	.08	.064	1.38	.167	1.24
On Campus (vs. off campus)	-.152	.11	-.093	-1.39	.165	2.55
1st Rank (vs. not 1 st rank)	.347	.07	.198	4.64	<.001	1.04

Note. Block One: $F(8, 530) = 2.43, p = .014, \text{adj. } R^2 = .021$; Block Two: $F(10, 528) = 4.44, p < .001, \text{adj. } R^2 = .060$; R^2 Change: $F(2, 528) = 12.07, p < .001, \text{adj. } R^2 = .042$.

Summary

When looking at univariate effects, all variables related to university experience had a positive impact on *university affinity*; i.e. as respondents had a higher perception of the *teaching quality, student services opportunities, and the quality of the facilities* at the university, or were

more pleased with *student services staff*, indicated a higher *initial impression* about the university, or were more involved in *extracurricular* activities, they tended to have more *affinity* towards the university. This was particularly true of students who indicated that the university was their first school of choice, and those who had relatively high (between 3.1 and 3.5) *GPA*'s. In addition, each of the variables related to university experiences were positively associated with each other at a significant level. Due to the significant correlations among these variables, further research examining the factor structure of the RSQA instrument in the current data set is recommended.

When examining the effects of the variables at the same time however, only perception on *student services opportunities*, *student services staff*, *initial impressions* about the university and *involvement in extracurricular* activities tended to have a positive effect on *university affinity*, while living on campus tended to decrease *university affinity* in the presence of the aforementioned variables. Student demographic variables (*classification level*, *resident status*, *sex* and *GPA*) were not good predictors of *university affinity*.

CHAPTER 5: DISCUSSION

This study explored the relationships between affinity and six constructs contributing to an engaging and impactful undergraduate experience. This chapter will explore each association separately between *university affinity* and each of the other variables listed in the research questions. As indicated in Chapter 4, both parametric and nonparametric statistical analyses were applied to the data. The nonparametric tests confirmed the parametric tests, as the scores, if different, were only marginal. This chapter will start with a review of the research questions, and discussion of the findings, primarily focusing on the parametric test results. Then, the implications for practice, limitations of the study, opportunities for future research, followed by a summary and conclusions will complete the chapter.

Research Questions

The following questions were the basis for the study:

1. What is the association between *university affinity* and each of the following: *teaching quality, student services opportunities, the quality of student services staff, the quality of facilities, student impressions, and extracurricular involvement?*
2. What is the association between *university affinity* and student demographic characteristics of *classification level, resident status, sex or GPA?*

Findings

The independent variables were correlated with each other in a positive direction. Students with a higher score on one variable tended to have higher scores on other variables. The association between *university affinity* and each of the following: *student services opportunities, the quality of student services staff, student impressions, and extracurricular*

involvement was found to be significant. There was not a significant association between *university affinity* and teaching quality or quality of the facilities.

The significance identified between *university affinity* and the student characteristics of *classification level, resident status, sex* or *GPA* was non-meaningful. Each research question is reviewed and discussed below.

Association between variables. The first research question examined the association of six specific constructs and *university affinity*. The results indicated that only four of the six constructs significantly contribute to *university affinity*. The four constructs with significance included: *student service opportunities, student services staff, student impressions of the university* and *extracurricular involvement*. The two constructs of *teaching quality* and the *quality of facilities* did not have significance in the results.

The second research question explored the association between *university affinity* and student characteristics. The specific characteristics examined included: *classification level, resident status, sex* and *GPA*. The results indicated the significance was non-meaningful between *university affinity* and the student characteristics of *classification level, resident status, sex* or *GPA*.

Discussion

The Homecoming event introduced at the beginning of this study, which was attended by three generations of one family, illustrates the power and benefit of affinity. These three women demonstrate a woven pattern of interconnectedness. The pattern consists of getting involved or connected while a student; then each woman deepened that connection by representing the institution in some capacity. The connection allowed each of the women to feel as though they belonged to the university community.

The results of the current study support the experiences of these three women. Combining a strong connection with a sense of belonging to the campus contributes to the development of *university affinity*. Building affinity can contribute to a lifelong interest and attachment to the success of the institution. Further, the results from this study confirm the important roles connecting and belonging play in the development of affinity. The discussion will now turn to a review of the specific subscales.

Student service opportunities. Consistent with other research, the results of this study confirm the value and impact of student service opportunities. The specific questions in the student service opportunity construct requested input on the quality of study abroad and leadership opportunities and the overall student orientation program. The institution studied has over 800 student organizations with specific leadership training coordinated through a designated department.

Study abroad data from the institution demonstrated that over 2,100 out of 29,000 undergraduates study abroad annually. Nearly 58 percent of the students who study abroad do so for a semester or more (Programs, 2011). This is important because studying abroad is considered a high impact practice according to Kuh (2007) and can be a transformative piece of the undergraduate experience. Offering numerous leadership and study abroad experiences emphasizes the commitment the institution is making to the students, and in turn, is valued by the students because those experiences contribute to their affinity development.

High Impact Practices (HIP's) that contribute to student success and retention, also contribute to a sense of belonging to the campus. Specifically, studying abroad and holding a leadership position add to student success, and as depicted in the results from this study, the same experiences contribute to affinity (Kuh, 2010). Similarly, Astin (1999) and Vanderbout

(2010), acknowledged the factors of orientation programs, studying abroad, and leadership in facilitating student success. The findings of this study reinforce previous research that identify experiences such as study abroad, new student orientation, and leadership opportunities; these offer a depth of personal insight that leaves a lasting impact on the student and instills a sense of belonging to the campus.

Student services staff. At the institution studied, results showed that university staff demonstrate their interest in students, do what is best for them, and support students to achieve their goals. This finding is consistent with other research and illustrates the value placed on creating a sense of community and demonstrating genuine care for students. The relationship between student and staff is critical because students perceive the care and concern as a demonstration of the institutional commitment to their success (Schreiner, 2010). Palmer, Zajonc, and Scribner (2010) asserted that developing a culture of care at an institution affords students stability and builds trust, which further contributes to the success and retention of students. Rhoads and Black (1995) emphasized the fundamental concept that student affairs staff, along with faculty and other administrators, need to work together to transform the college experience and create transactions between students and staff that are meaningful.

Similarly, Schneider (2006) stated, “The people make the place” (p. 452). The findings of this study support this concept. Having staff who are interested in students and who build intentional interactions with them, fosters the sense of connectivity to the institution. This connection, whether through interactions with a residence hall staff member, an academic advisor, or an assistant dean, transforms the student experience. It instills a sentiment of care, which makes a student feel they matter to the institution. This is particularly important at a large research institution, where often, the undergraduate experience garners less attention.

Student impressions of the university. The results support past research stating the importance of student impressions about the institution. The findings confirm the concept that building a unique niche is fundamental for institutions of higher education (Moore, 2010). Providing meaningful, coordinated, positive messages about the institution helps to build an understanding about the ethos of the campus. Attending college can be the start of a lifelong relationship with the institution; the marketing and messaging about the institution begins long before the student arrives on campus. Marketing materials should describe what it means to be a student at that institution, and explain what it means to get an education from the particular institution.

Institutions need to be intentional and directed when creating a brand and considering first impressions that students may develop about the campus. Compelling research conducted by Bulotaite (2003), supported by Newman, Couturier, and Scurry (2004) and Moore (2010), encourages institutions to be intentional and directed about branding and marketing. Researchers in Australia found the most important factor contributing to student loyalty was institutional image, which predicted perceived value (Brown & Mazzarol, 2009). These studies reinforce the evidence found here, emphasizing the importance of initial impressions and marketing. Presentation and reputation are important factors to consider when institutions are working to attract students, and even more important, to maintain a lifelong attraction. Aligning the values of the institution with future students could be a commanding tool in the development of affinity.

Extracurricular involvement. The findings in this study regarding the impact of extracurricular involvement and affinity are convincing because they are similar to the outcomes identified by Astin (1999) and replicated in numerous studies conducted by Kuh (2006 and

2010). Astin (1999) identified involvement as a positive factor contributing to retention and academic success of students. The success experienced by students who join clubs and participate in extracurricular activities results in greater retention and higher satisfaction rates (Kuh et al., 2010). Similarly, Steeper (2010) and Vanderbout (2010) examined involvement in student organizations from an alumnus perspective and found student organization involvement facilitated a sense of connectedness to the institution and cultivated a sense of belonging.

According to Kuh (2006), HIP's assists in the deepening of experiences those students have at the institution. HIP's are often used to frame the persistence to graduation or the overall satisfaction level of the undergraduate experience. Substantiating Kuh's research, others have demonstrated the value of HIP's and their impact on student involvement (Steeper, 2009; Wolf-Wendel, 2009). The results of this study also point to the conceptual idea that HIP's contribute to students developing an emotional connection and set the stage for a sense of belonging at the institution.

Likewise, the findings of this study corroborate research conducted on alumni, specifically on alumni giving, where the emphasis on involvement in activities, such as Greek organizations, is critical to the development of loyalty to the institution (Pumerantz, 2004; Speck, 2010; Sun et al., 2007; Taylor & Martin, 1995; Weerts & Ronca, 2007, 2009). Hennig-Thurau, Langer & Hansen (2001) stated, "Students' emotional commitment to their institution is crucial for student loyalty" (p. 341). Establishing an emotional connection to the institution through student involvement and engagement is compelling, and the results of this study complement those of other researchers.

Findings Without Significance

Teaching quality. The results of this study were not significant with the teaching quality construct, which was unexpected. At the institution studied, faculty is revered and the focus on the classroom experience is intense. Often, at research extensive institutions, classroom teaching takes a back seat to discovery and innovation. According to Handelsman et al. (2004), implementing changes in classroom teaching contribute to “habits of the mind that drive science” (p. 521). This is especially true at research extensive institutions. More review in this area in a qualitative format may provide a more robust understanding of the impact of teaching quality on affinity.

Quality of facilities. It is not too surprising that this variable was not significant. At the institution studied, the prevailing sentiment about education is that it happens everywhere, not just in the classroom (Drury, 2012). However, the result differs from research conducted by Jorgensen and Stedman (2001), who identified three factors contributing to a sense of place: identity, attachment and dependence. Looking more deeply at the three factors, there are similarities between identity and connection; attachment and ownership; and dependence and affinity. In fact, the factors could be synonyms. However, the sentiment expressed by the respondents in the current study did not view the facility quality as a significant factor contributing to the overall sentiment of affinity.

Classification level. This variable’s lack of significance to *university affinity* is somewhat shocking. It refutes most research in this area. When considering classification level, one would be led to believe the longer you have been on campus, the higher the regard for the institution. According to Gardner and Van der Veer (1998), the senior year is when “students indeed feel special and sense that their institution is unique” (p. 157). Additionally, Whitaker

(1999) found students in senior status demonstrated the highest mean for institutional loyalty. Such sentiments were not supported by the findings in this study, however.

This divergence could have a number of reasons. In the classification construct, the students' year in school is irrelevant; if there is not a connection to the institution, there will not be affinity. This finding supports the initial research question in this study. Second, students are more fluid in their identification of "senior year". In fact, campuses are seeing a rise in the number of semesters needed to obtain a degree (Bound, Lovenheim, & Turner, 2010). Often, there is a senior year and a "super" senior year, a term that captures the fifth year of the undergraduate student experience. Regardless, this outcome confirms that students who are involved and develop a connection to the institution are more likely to have affinity for it, whatever the classification level in school.

Resident status. Resident status in this study means being either an in-state student or an out-of-state student. In reality, the question is more complex. At the institution studied, students can identify with more than these two categories. The state, and thereby the institution, has a reciprocity agreement with a neighboring state that gives in-state tuition to residents of that state. There was not a choice for students from that state to select when participating in the research. Additionally, there may have been confusion for international students, in terms of the category that would best pertain to them. These two problems certainly could have impacted the results.

The institution studied is considered to be a highly regarded, research extensive, Land-grant University. The mission at a land-grant institution is to improve the lives of the citizens of the state (Foss & Witte, 1938). It would stand to reason that the students who are from the state would feel more of a connection or an ownership to the campus, since the campus is supposed to

improve the lives of its citizens. Unfortunately, that was not the case with this construct. The question did not have the depth needed to garner solid results.

Sex. When examining the difference between sex and affinity, the results from previous research has been mixed. Whitaker (1999) found being female positively impacted institutional loyalty. While other researchers found the opposite to be true (Lackie, 2011; Weerts & Ronca, 2009). This study did not find significance either way. Additional research examining the difference between sex and affinity is worthy of further study.

Grade point average. Unfortunately, the results of this study were not definitive regarding the impact of GPA and university affinity. There was significance identified for students who indicated having a GPA between 3.1-3.5 but not for the highest and lowest GPA. Additionally, GPA was self-reported and freshmen students would not have received an official GPA from their coursework thus far while enrolled. The first-year students reporting a GPA could have been indicating a GPA from high school or projecting a GPA that was desired. Regardless, the characteristic of GPA may not be a reliable factor in determining the affinity one has for their alma mater.

Affinity

Affinity is the consequence of combining a sense of belonging and an emotional connection to the institution. It can be considered the legacy of a student. Legacy is “creating a relationship with the future and living into it before it appears” (Korstrom, 2011). For students, it means identifying the commitment to the institution and the loyalty and emotional commitment felt. It is also sharing what has been learned, what has been meaningful and lasting. One’s legacy will outlast one’s time on earth; indeed it is an energizing contribution that will withstand the test of time.

In this study, having affinity for the institution is the result of feeling as though one belongs and is connected to it. As previous research demonstrated, loyalty and affinity are important for long term success of the institution (Helgesen & Nettet, 2007). Affinity is the goal, it is what institutions desire to create and nurture. Individual institutions of higher education stand to benefit from the affinity accumulated as an undergraduate student. The value of creating students who develop a sense of affinity for the institution is the epitome of any community and is important for public institutions to flourish. It could shape the campus for years to come.

Implications for Practice

This study has highlighted four areas that university administrators should consider when developing admissions materials, creating orientation programs, and igniting the student experience. Establishing a connection to the campus should begin long before a student decides to attend. It begins when the institution is mentioned in the news or when a youngster attends a summer sports camp on campus. Messaging and conveying the values of the institution at every turn are important opportunities to create connections. The brand of the institution identifies the niche the campus serves. The niche can be conveyed through web presence, materials sent to recruits, and the media generated persona for the institution. Institutions can benefit from intentional efforts when building a brand and articulating the values of the campus to the public, and both future students and alumni.

Specific recommendations for institutional marketing and communications, student affairs, faculty, and alumni relations are outlined below:

Institutional marketing and communications. Recruitment and branding, sharing values, and highlighting memorable moments are essential to the image of the institution.

Building a recognizable brand and niche are increasingly more important than ever for institutions to appeal to the students desired. Higher education in the United States has become a commodity that is sought, and even replicated, by other countries. It has to remain a value for public institutions, and institutions need to articulate the niche served to differentiate between campuses.

Student affairs professionals. Student affairs professionals have a unique opportunity to develop bridges of strength and depth with students. Student affairs professionals typically provide an emotional connection to the institution. They are known for getting students involved in leadership, study abroad programs, and creating a culture of care at the institution. All are ways to further develop affinity levels. The resulting affinity level, combined with an understanding of the financial needs of the institution and an interest in having the institution succeed, is all-important as public funding sources dwindle.

High impact practices (HIP's) have proven to be advantageous for the success of undergraduates and retaining them to graduation. They also have an impact on affinity. Intentional opportunities to connect with the campus, to represent the institution in a positive light, may result in students having affinity for the campus and will lead to a lifelong relationship that is mutually beneficial.

Faculty. Faculty can and should strive to humanize and connect with students in the classroom. Taking the opportunity to share of themselves and their journeys into the field are valuable assets to the student experience. Examples could include: teaching a freshman seminar course, becoming a faculty-in-residence for a residence hall, or offering a passionate lecture about something personally important. Faculty should also consider the use of high impact practice's in the classroom and in student interactions. As noted previously, high impact

practices offer many benefits to the students, including retention and overall student success. According to Palmer (2007), “Good teachers possess a capacity for connectedness, They are able to weave a complex web of connections among themselves, their subjects and their students so that student can learn to weave a world for themselves” (p. 11). Connecting with students, talking about the big questions in life, and being real and genuine are ways to build the human side of teaching.

Alumni relation’s staff. Alumni relations can and should begin before the student steps on campus. Sponsoring send-off events for new students is an excellent way to connect students with alumni. Collecting data on the student experience is imperative. Data on individual students informs practice. Examples of data points to collect include: student involvement in clubs and organizations, leadership positions held, campus work experience, and the countries traveled when studying abroad. Having this data allows the alumni association to tailor messages to graduates and send direct, applicable information to interested alumni.

Data is important, however, alumni relations should gather more than the numbers. Assembling the student experience is telling a story about the legacy of a student. This legacy comes from joining clubs and organization involvement, along with the influence of significant events that impacted the student’s life, which all make the college years important. The significance of the experiences will be firmly rooted in the lives of those students forever, and this builds affinity.

Public higher education institutions need to supplement the financial structure of the university to continue to thrive. Fostering a lifelong connection with current students, and later the alumni, is a potential source of support for institutions (Pulley, 2013). Private colleges have

built a network with alumni and must begin the effort with undergraduates. This effort is both beneficial and enduring, as fiscal needs elevate.

Students will be on campus, walking through hallways and on sidewalks, for at least four years. The critical question that needs to be asked is: “How will the student build a lifelong connection to the campus in those four years?” Using this question to guide opportunities for involvement, support services, and the overall sentiment of care from the campus to the student will have an impact of the level of affinity in the student population.

Limitations

As with most research studies, this study also has limitations. First, the survey used for the study was distributed one time, electronically, at one institution. Students were only surveyed once, but their attitudes will likely shift over time. With electronic tools comes the possibility of systematic bias among students who do or do not complete the survey (Dillman et al., 2009). With distribution at one institution, the data may not be able to be generalized to other research extensive institutions, let alone to other types of institutions. Although affinity, student involvement, and overall satisfaction are worthy variables to measure at all institutions, the findings will most likely have limited application to other schools or colleges.

Next, as the results indicated, several of the variables were highly correlated, meaning there was a large effect size ($r > .50$). One interpretation for this result is that the high inter-correlations among the variables is a positive aspect of the survey instrument and triangulates the results. Another interpretation is the possibility that all the variables measure one construct rather than several different constructs. The issue of multicollinearity and serious response bias usually become an issue when correlations scores are .80 or above. Table 4 demonstrates that

only three of the 15 correlations are above .50 (highly correlated). Most are moderately correlated (.30 to .50) with each other or weakly correlated (.10 to .30).

A level of correlation between the variables was expected for this research. This is considered convergent validity and confirms the idea that when a topic is measured from the same survey, a level of correlation between the topics is expected. If the results from this study did not elicit a positive correlation, it may have indicated that the measure was not valid. For replication and to enhance the reliability of the instrument, further research exploring the factor structure of the RSQA is recommended.

Finally, as evidenced in the invitation to participate (Appendix D), the researcher was known to some of the students. As the current dean of students at the institution where the study was conducted, the researcher was often quoted in the student newspapers and sent frequent email messages to students, so being a known quantity may have influenced the response rate for better or worse.

Recommendations for Future Research

More research is needed examining the topic of affinity from the current student viewpoint. Suggestions for future research include the following possibilities. Explore the factor structure of the RQSA instrument to definitively determine if it measures the construct of affinity. Qualitatively gather stories from students who are deemed to possess, and also those who lack, affinity and compare and contrast the experiences of each. Identify one specific activity area, such as involvement in the marching band or student government, and apply a mixed-method approach to gathering data and experiences about affinity levels. Examining specific demographic data in more detail, specifically age, sex and classification could also be done.

Further research on the topic of affinity is warranted to enhance the ability of colleges and universities to focus their efforts in creating institutional cultures that allow students to feel connected and to belong.

Summary

This study examined what variables have the potential to impact the development of affinity in an undergraduate student. The research was conducted at one public institution in the Midwest. The results support using high impact practices with students to facilitate a connection to the institution where they are studying. The value and influence of staff interactions with students, the opportunities to develop leadership skills and out-of-classroom involvement activities, all impact the affinity level of students.

In the simplest of statements, “It matters.” In turn, the students at the institution will feel as though they matter to the institution. It is evident from this study that institutions would be well served to spend time early in the lifecycle of a student to create a culture of care and foster a sense of belonging to the campus; letting students know they are part of a legacy. Both care and belonging contribute to a sense of institutional bonding or affinity.

Developing affinity for the institution has the potential to be parlayed into a lifelong commitment to the institution. As highlighted in previous research that found “alumni loyalty was the most significant factor in determining if an alumnus was a donor or a non-donor” (Connor, 2005, p. 77). A lifetime commitment could result in a chorus of support for the institution.

Conclusion

Developing a sense of affinity in undergraduate students offers many opportunities for an institution. As public financial support decreases, and as scrutiny about the product of a

higher education is magnified, offering students ways to connect to the institution is key. Deepening the connections and facilitating a sense of belonging assists students to develop affinity for their institution.

Public institutions of higher education need to focus on caring for students and encourage a sense of belonging and connectedness to the institution. This research has added to the literature by identifying the value and importance of four constructs. Specifically, offering meaningful interactions between students and staff, establishing effective orientation and study abroad programs, intentionally creating marketing materials to draw students, and recognizing the value of extracurricular involvement. Experiences while an undergraduate student are the foundation for being involved as an alumnus. In fact, several institutions refer to current students as “alumni in-training or alumni in-residence” (Miranda, 2013).

Creating opportunities for authentic and genuine transactions between students and the institution will further equate to developing a sense of affinity in the students. Particularly, large, research-extensive universities will want to expend effort in encouraging this from staff and faculty. This means every interaction between students and faculty or staff “counts” toward the sense of connectedness and belonging. It begins with the marketing materials and website that are presented to prospective students, and is then followed by the orientation and registration program designed to welcome new students to the campus. It also means institutions need to recognize the value of extracurricular involvement. Student organizations play an important role in fostering a sense of affinity and institutional bonding that assists in making interpersonal connections and developing skills that transcend the traditional classroom setting.

Following the lead of small and private colleges, developing a culture of care is essential. The well-being and development of each individual student is paramount and has to remain at the forefront of every institution of higher education. In the words of Maya Angelou, “People will forget what you said, they will forget what you have done, but people will never forget the way you make them feel” (Angelou, 1997).

EPILOGUE

The quantitative approach in this study did not capture the stories and experiences that are fundamental in the lives of students. Two such accounts are included below because they depict the compassion and kindness that provide context for every college campus and every interaction between a university employee and a student or family member. It is also likely that situations such as these happen every day on college campuses around the world. The impact is profound. What is unknown at this time is the longitudinal effect of such care and compassion. The names have been changed, but the stories are verbatim.

Beth. An example of the formula Connection + Ownership = Affinity can be illustrated in a recent email exchange between a graduating senior, Beth, and a student services staff member highlighted below:

It may take a little jostling of your memory, but I'm sure my face and story are in there somewhere. We haven't met since 2011, but that's probably a good thing. I was that lost 18-year-old girl going through a weird transition from high school to college, a strong academic drive but lost as to where to invest it, ending up on nonacademic probation after a trip to the hospital and 2 days in detox, April 2010, remember her? Well, I am completely different now. There are many people who I can thank for my reassertion in life, but you are absolutely the primary agent. You reiterated my second chance at life by granting me a second chance at academia, and, as promised, I have achieved an exceptionally high level of academic and human excellence through the Experience. I am applying to graduate schools right now, and it was quite a challenge to fit my experiences, background, and dreams of the future within the required limit, and also explain the single discrepancy in my transcript. But, as with everything else in my life, I did my best to turn a negative situation into a positive experience; I used my nonacademic probation to start my story, but then provided countless examples demonstrating how far I've come and how much I've accomplished since that year. I still think about that horrific event almost every day, but rather than carry it with me as a burden, I use it to fuel my assertions and seize the fulfilling life I know I've earned. As you may be able to tell, I could probably blab on forever; however, my words fall short in communicating the level of emotion and gratitude I feel towards you. I have no idea where I would be today if not for my second chance at U█. My biological and academic families have supported my endeavors wholly over the last 3

years, and I found the guidance I needed to fully realize my potential in pursuing academic and personal excellence. I raised my overall GPA up to 3.7 and my major GPA in the major is 3.9 (although we both know GPA doesn't say everything). The entire faculty in the department of Communication Sciences and Disorders has upheld exceptionally high standards and always responded to my calls for deeper enrichment; I am graduating this May with Honors in the major (and also a degree in Scandinavian Studies and a certificate in European Studies), and I'll be presenting my independent Senior Thesis at the U█ Symposium and also in June in Montreal at a conference for the Acoustical Society of America. I work in a research lab and have a critical role in pioneering research on early language development using a sophisticated infrared eye-tracker (so little kids don't have to wear a head apparatus, they just sit and watch our homemade movies on the screen--It's so cool!!). I even got my name on the office door as an undergrad :) I applied to 6 different PhD programs, but none of my personal statements packed the same passionate power as my reasons for continuing at the U█. The program is extremely competitive, so who knows if I'll get in, but I am still trying to make up the lost academic ground from that first year! I simply can't get enough of the █ Experience. I attached my personal statement if you want to read it. I am positive that your keen judge of character has been working to save the right people from getting lost, and if you ever need support for the policy of probation over suspension, feel free to use me as an example or ask me to write something. I don't know what else I can say except thanks for believing in me. Hope you are having a relaxing winter! Cheers,

Tonya. The following email is from a parent of a student at the institution studied:

There are no words which can adequately express the gratitude I have for Susan Small, Resident Director for the Study Abroad Program in London. Our daughter, Tonya, was in the London program for second semester and was only a few days into the program when we discovered she was having medical problems. After speaking with Tonya and her doctor, it seemed the best course of action would be to have Tonya return home for follow-up medical care. That evening I emailed Susan to explain the situation. Tonya went to the main office the next morning to seek guidance. That's where the story really begins. What ensued over the next 5 days was indescribable. Susan comforted, coaxed, coached and supported our daughter in a way I would never expected - especially from a complete stranger! She had multiple dialogues with Tonya to help her see the options from every perspective. She explained her experiences with students in similar situations, to help Tonya discern the best strategy for her specific situation. Susan spoke with the professors and did everything she could to help Tonya be in a position to succeed if she opted to stay in London. Susan contacted me to ensure we were apprised of the situation and validate she fully understood our perspective. Once Tonya made the decision to return to the U.S., Susan was in contact with the staff to help her get re-enrolled in classes here. There was no detail unaddressed as she worked with Tonya to plan her return home. I cannot

explain the depth of gratitude I have for Susan. Having a child (albeit an adult child) 4,000 miles away with health issues is one of the worst nightmares a parent can experience. Susan went WAY above and beyond what I would have expected her to do in supporting our daughter during a very difficult time. To say she is a credit to the University and the study abroad program seems trite. She is a truly amazing woman! Tonya returned safely home yesterday. She said she learned more during the 10 days in London than she had from almost any experience in her life. She learned a lot about herself. Most importantly, she learned the meaning of true compassion and commitment to help someone succeed. Susan has left a indelible impact on Tonya, her friends and family.

As staff and faculty, the opportunity to have a profound impact on the life of a student is almost immeasurable. The untold story is how it influences affinity levels in the future.

REFERENCES

- Ackerman, R., & Schibrowsky, J. (2007). A business marketing strategy applied to student retention: A higher education initiative. *Journal of College Student Retention: Research, Theory and Practice*, 9(3), 307-336.
- Allison, P. D. (1999). *Logistic regression using the SAS system: theory and application*: SAS Publishing.
- Alreck, P. L., & Settle, R. B. (2004). *The survey research handbook*. New York, NY: McGraw-Hill.
- Astin, A. W. (1984). Student Involvement: A Developmental Theory for Higher Education. *Journal of College Student Personnel*, 25, 297-308.
- Astin, A. W. (1993). *What Matters in College: Four Critical Years Revisited B2 - What Matters in College: Four Critical Years Revisited*. San Francisco: Jossey-Bass.
- Astin, A. W. (1999a). Student involvement: A developmental theory for higher education.
- Astin, A. W. (1999b). Student involvement: A developmental theory for higher education. *Journal of College Student Development*, 40, 518-529.
- Baade, R. A., & Sundberg, J. O. (1996). What determines alumni generosity? *Economics of Education Review*, 15(1), 75-81.
- Bean, J. P. (1982). Student attrition, intentions, and confidence: Interaction effects in a path model. *Research in Higher Education*, 17(4), 291-320.
- Bolton, R., & Bolton, D. (1996). *People styles at work: Making bad relationships good and good relationships better*: Amacom Books.
- Bound, J., Lovenheim, M. F., & Turner, S. (2010). Increasing time to baccalaureate degree in the United States: National Bureau of Economic Research.

- Brittingham, B. E., & Pezzullo, T. R. (1990). *The campus green: Fund raising in higher education*: School of Education and Human Development, The George Washington University Washington, DC.
- Brower, D. R. (2006). *Factors that relate to alumni giving at public master's colleges and universities*. (Doctor of Philosophy), University of Virginia, Charlottesville.
- Brown, R. M., & Mazzarol, T. W. (2009). The importance of institutional image to student satisfaction and loyalty within higher education. *Higher Education*, 58(1), 81-95.
- Cates, D. W. (2011). *Undergraduate alumni giving: A study of six institutions and their efforts related to donor participation*.
- Chung-Hoon, T. L., Hite, J. M., & Hite, S. J. (2007). Organizational integration strategies for promoting enduring donor relations in higher education: The value of building inner circle network relationships. *International Journal of Educational Advancement*, 7(1), 2-19.
- Clotfelter, C. T. (2003). Alumni giving to elite private colleges and universities. *Economics of Education Review*, 22(2), 109-120.
- Conner, D. K. (2005). *Factors that affect alumni giving at a southeastern comprehensive university*. Clemson University.
- Craney, C. A., & Surlis, J. G. (2002). Model-Dependent Variance Inflation Factor Cutoff Values. *Quality Engineering*, 13(3), 391-403.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*: Sage Publications, Inc.
- DeVellis, R. F. (2011). *Scale development: Theory and applications* (Vol. 26): Sage Publications, Inc.
- Diehl, A. G. (2007). *The Relationship between Alumni Giving and Receipt of Institutional Scholarships among Undergraduate Students at a Public Lang-Grant Institution*. (PhD), Pennsylvania State University, Pennsylvania State University.

- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2009). *Internet, Mail, and Mixed-mode Surveys : the Tailored Design Method*. Hoboken, NY: Wiley & Sons.
- Drury, G. (2012). *The Wisconsin Idea: The Vision that Made Wisconsin Famous*. Paper presented at the University of Wisconsin Teaching and Learning Symposium, Madison, WI. http://www.med.wisc.edu/files/smph/docs/education/community_service/wi-idea-history-intro-summary-essay.pdf
- Dugan, K., Mullin, C. H., & Siegfried, J. J. (2000). Undergraduate financial aid and subsequent alumni giving behavior. *Williams Project on the Economics of Higher Education Discussion Papers, DP-57*.
- Ehrenberg, R. G. (2002). *Tuition rising: Why college costs so much*. Cambridge: Harvard University Press.
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*(2), 175-191. doi: 10.3758/bf03193146
- Field, K. M. (2011). *Engaging institutional environments and alumni donor participation rates: Is there a linkage?*. The Florida State University). Available from ProQuest Dissertations and Theses, <http://search.proquest.com.ezproxy.library.wisc.edu/docview/897114485?accountid=465>
- Foss, R., & Witte, E. E. (1938). *A story of public service : the boundries of the campus are the boundaries of the state*. Madison, Wis.: University of Wisconsin.
- Gaier, S. (2005). Alumni satisfaction with their undergraduate academic experience and the impact on alumni giving and participation. *International Journal of Educational Advancement, 5*(4), 279-288.
- Gardner, J. N., & Van der Veer, G. (1998). *The Senior Year Experience. Facilitating Integration, Reflection, Closure, and Transition*: ERIC.
- Gentile, D. A. (1993). Just what are sex and gender, anyway? A call for a new terminological standard. *Psychological Science, 4*(2), 120.
- Giroux, H. A. (2003). Selling out higher education. *Policy futures in Education, 1*(1), 179-200.

- Handelsman, J., Ebert-May, D., Beichner, R., Bruns, P., Chang, A., DeHaan, R., . . . Tilghman, S. M. (2004). Scientific teaching. *Science*, *304*(5670), 521-522.
- Hartman, D., & Schmidt, S. (1995). Understanding student/alumni satisfaction from a consumer's perspective: the effects of institutional performance and program outcomes. *Research in Higher Education*, *36*(2), 197-217.
- Helgesen, Ø., & Nettet, E. (2007). Images, satisfaction and antecedents: Drivers of student loyalty? A case study of a Norwegian university college. *Corporate Reputation Review*, *10*(1), 38-59.
- Hennig-Thurau, T., Langer, M. F., & Hansen, U. (2001). Modeling and managing student loyalty. *Journal of Service Research*, *3*(4), 331-344.
- Hoyt, J. E. (2004). *Understanding alumni giving: Theory and predictors of donor status*. Paper presented at the Association of Institutional Research.
- Immerwahr, J., Johnson, J., & Gasbarra, P. (2008). The Iron Triangle: College Presidents Talk about Costs, Access, and Quality. National Center Report# 08-2. *National Center for Public Policy and Higher Education*, 52.
- Immerwahr, J., Johnson, J., Gasbarra, P., Ott, A., & Rochkind, J. (2009). Squeeze play 2009: The public's views on college costs today. *Washington: Public Agenda and the National Center for Public Policy and Higher Education*.
- Johnson, J. W., & Eckel, P. D. (1997). Preparing seniors for roles as active alumni *The Senior Year Experience: Facilitating Integration, Reflection, Closure, and Transition*, Jossey-Bass, San Francisco (pp. 227-242).
- Jorgensen, B. S., & Stedman, R. C. (2001). Sense of place as an attitude: Lakeshore owners attitudes toward their properties. *Journal of environmental psychology*, *21*(3), 233-248.
- Kameen, M. C. (2006). *Alumni loyalty: examining the undergraduate college experience and alumni donations*.
- Keller, C. M. (2009). Coping Strategies of Public Universities During The Economic Recession of 2009. In APLU (Ed.). 1307 New York Avenue, NW, Suite 400, Washington, DC.

- Kezar, A. J. (2004). Obtaining integrity? Reviewing and examining the charter between higher education and society. *The Review of Higher Education*, 27(4), 429-459.
- Koole, R. S. (1981). *A study of financially supportive and financially nonsupportive alumni of Los Angeles Baptist College*. Western Michigan University.
- Korstrom, J. (2011). Meridian Life Design Inc. Retrieved January 31, 2013, from <http://meridianlifedesign.com>
- Kuh, Kinzie, J., Schuh, J. H., & Whitt, E. J. (2010). *Student success in college: Creating conditions that matter*: Jossey-Bass.
- Lackie, M. B. (2011). *Alumni giving at Arkansas Tech University: College experiences and motivations to give as predictors of giving behavior*. UNIVERSITY OF ARKANSAS.
- Langley, J. M. (2010). Listening - Really Listening - to Alumni. *The Chronicle of Higher Education*, 56(40).
- Lawley, C. D. (2008). *Factors that affect alumni loyalty at a public university*. (PhD), Purdue University, West Lafayette, IN. (3330292)
- Lederman, D. (2010). The Land-Grant Landscape. *Inside Higher Ed*. Retrieved from http://www.insidehighered.com/news/2012/6/15/land_grant
- Litwin, M. S. (1995). *How to measure survey reliability and validity* (Vol. 7): Sage Publications, Incorporated.
- Liu, Y. (2006). Determinants of private giving to public colleges and universities. *International Journal of Educational Advancement*, 6(2), 119-140.
- Mann, T. (2007). College fund raising using theoretical perspectives to understand donor motives. *International Journal of Educational Advancement*, 7(1), 35-45.
- Marr, K. A., Mullin, C. H., & Siegfried, J. J. (2005). Undergraduate financial aid and subsequent alumni giving behavior. *The Quarterly Review of Economics and Finance*, 45(1), 123-143.

- McAlexander, J. H., & Koenig, H. F. (2001). University experiences, the student-college relationship, and alumni support. *Journal of Marketing for Higher Education*, 10(3), 21-44.
- McAlexander, J. H., Koenig, H. F., & Schouten, J. W. (2006). Building relationships of brand community in higher education: a strategic framework for university advancement. *International Journal of Educational Advancement*, 6(2), 107-118.
- McDearmon, J. T., & Shirley, K. (2009). Characteristics and institutional factors related to young alumni donors and non-donors. *International Journal of Educational Advancement*, 9(2), 83-95.
- McLendon, M. K., Hearn, J. C., & Mokher, C. G. (2009). Partisans, professionals, and power: The role of political factors in state higher education funding. *The Journal of Higher Education*, 80(6), 686-713.
- Melchiori, G. S. (1988). Alumni research: An introduction. *New Directions for Institutional Research*, 1988(60), 5-11.
- Mercatoris, M. E. (2006). *Alumni loyalty: Examining the undergraduate college experience and alumni donations*. The University of Texas at Austin. ProQuest Dissertations and Theses, Retrieved from <http://ezproxy.library.wisc.edu/login?url=http://search.proquest.com/docview/304981481?accountid=465> database.
- Messer, B. L., & Dillman, D. A. (2011). Surveying the general public over the internet using address-based sampling and mail contact procedures. *Public Opinion Quarterly*, 75(3), 429-457.
- Miranda, M. E. (2013). Not a Moment Too Soon. *Currents*, XXXIX(2), 40-43.
- Monks, J. (2003). Patterns of giving to one's alma mater among young graduates from selective institutions. *Economics of Education Review*, 22(2), 121-130.
- Moore, R. (2010). *The Real U: Building Brands that Resonate with students, faculty, staff and donors*. Paper presented at the eduWeb, Chicago, IL.
- Mueller, S. C. (1980). Alumni Relations and Volunteers--Indivisible. *New Directions for Institutional Advancement*, 9, 61-77.

- Mulugetta, Y., Nash, S., & Murphy, S. H. (1999). What makes a difference: Evaluating the Cornell tradition program. *New Directions for Institutional Research*, 1999(101), 61-80.
- Newman, F., Couturier, L., & Scurry, J. (2004). *The future of higher education: Rhetoric, reality, and the risks of the market*: Jossey-Bass San Francisco.
- Okunade, A., & Berl, R. (1997). Determinants of charitable giving of business school alumni. *Research in Higher Education*, 38(2), 201-214.
- Palmer, P. J. (2007). *The courage to teach: Exploring the inner landscape of a teacher's life*: Jossey-Bass.
- Palmer, P. J., Zajonc, A., & Scribner, M. (2010). *The heart of higher education: A call to renewal*: Jossey-Bass.
- Pike, G. R., & Kuh, G. D. (2005). A typology of student engagement for American colleges and universities. *Research in Higher Education*, 46(2), 185-209.
- Pike, G. R., Smart, J. C., Kuh, G. D., & Hayek, J. C. (2006). Educational expenditures and student engagement: When does money matter? *Research in Higher Education*, 47(7), 847-872.
- Programs, I. A. (2011). Campus-Wide Study Abroad Report (pp. 17). Madison, WI: University of Wisconsin-Madison.
- Pulley, J. (2013). The Journey is the Reward. *Currents*, XXXIX(1), 16-21.
- Pumerantz, R. K. (2004). *Alumni-in-training: Institutional factors associated with greater alumni giving at public comprehensive colleges and universities*. Claremont Graduate University.
- Rhoads, R. A., & Black, M. A. (1995). Student Affairs Practitioners as Transformative Educators: Advancing a Critical Cultural Perspective. *Journal of College Student Development*, 36(5), 413-421.
- Schein, E. H. (1990). Organizational culture. *American psychologist*, 45(2), 109.

- Schneider, M. (2010). Finishing the First Lap: The Cost of First Year Student Attrition in America. *American Institutes for Research*, 23.
- Schreiner, L. A. (2010). The "Thriving Quotient". *About Campus*, 15(2), 2-10.
- Schuh, J. H., & Gansemer-Topf, A. (2005). Finances and retention. *College student retention formula for student success*, 277-293.
- Sciences, I. o. E. (2012). Enrollment Fast Facts Retrieved February 22, 2013, from <http://nces.ed.gov/fastfacts/display.asp?id=98>
- Speck, B. W. (2010). The growing role of private giving in financing the modern university. *New Directions for Higher Education*(149), 7-16.
- Steeper, D. W. (2009). *The effects of selected undergraduate student involvement and alumni characteristics on alumni gift-giving behavior at the University of Virginia*. University of Virginia.
- Sternberg, R. J., Mio, J., & Mio, J. S. (2009). *Cognitive psychology*: Wadsworth Publishing Company.
- Strickland, S. (2007). Partners in Writing and Rewriting History: Philanthropy and Higher Education. *International Journal of Educational Advancement*, 7(2), 104-116.
- Sun, X., Hoffman, S. C., & Grady, M. L. (2007). A multivariate causal model of alumni giving: Implications for alumni fundraisers. *International Journal of Educational Advancement*, 7(4), 307-332.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using Multivariate Statistics*: Pearson.
- Taylor, A. L., & Martin, J. C. (1995). Characteristics of alumni donors and nondonors at a research I, public university. *Research in Higher Education*, 36(3), 283-302.
- Terry, N., & Macy, A. (2007). Determinants of alumni giving rates. *Journal of Economics and Economic Education Research*, 8(3), 3.
- Thomas, K. W. (2002). *Intrinsic motivation at work*. San Francisco: Berrett-Koehler Publisher Inc.

- Vanderbout, J. L. (2010). *Impact the Undergraduate Student Experience has on the Development of Alumni Loyalty*. University of Missouri - Columbia, United States -- Missouri. Available from ProQuest Dissertations & Theses (PQDT). Web. ProQuest Dissertations & Theses (PQDT). Web. database.
- Vianden, J., & Bronkema, R. (2012). *Analyzing the Concept of Student Loyalty in Persistence Research*. Paper presented at the National Association of Student Personnel Administrators, Phoenix, AZ.
- Volkwein, J. F. (1989). A Model of Alumni Gift-Giving Behavior. AIR 1989 Annual Forum Paper.
- Volkwein, J. F., & Parmley, K. (1999). Testing why alumni give: A model of alumni giftgiving behavior. *Research in alumni relations: Surveying alumni to improve your programs*, 59-62.
- Wastyn, M. L. (2009). Why alumni don't give: A qualitative study of what motivates non-donors to higher education. *International Journal of Educational Advancement*, 9(2), 96-108.
- Weerts, D. J., Cabrera, A. F., & Sanford, T. (2010). Beyond giving: Political advocacy and volunteer behaviors of public university alumni. *Research in Higher Education*, 51(4), 346-365.
- Weerts, D. J., & Ronca, J. M. (2007). Profiles of supportive alumni: Donors, volunteers, and those who do it all. *International Journal of Educational Advancement*, 7(1), 20-34.
- Weerts, D. J., & Ronca, J. M. (2009). Using classification trees to predict alumni giving for higher education. *Education Economics*, 17(1), 95-122.
- Whitaker, E. P. (1999). *The linkage of college and university seniors to their institution: a study of factors related to institutional loyalty*. Vanderbilt University.
- Wolf-Wendel, L., Ward, K. and 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).
- Wolverton, B. (2008). Private Donations to Colleges Rise for 4th Consecutive Year. *Chronicle of Higher Education*, 54(25), 1.

Worth, M. J., & Smith, N. J. (1993). Raising funds for community colleges. *ed. M. Worth. Educational Fundraising. Washington, DC: Council for Advancement of Education.*

APPENDIX A

POWER ANALYSIS

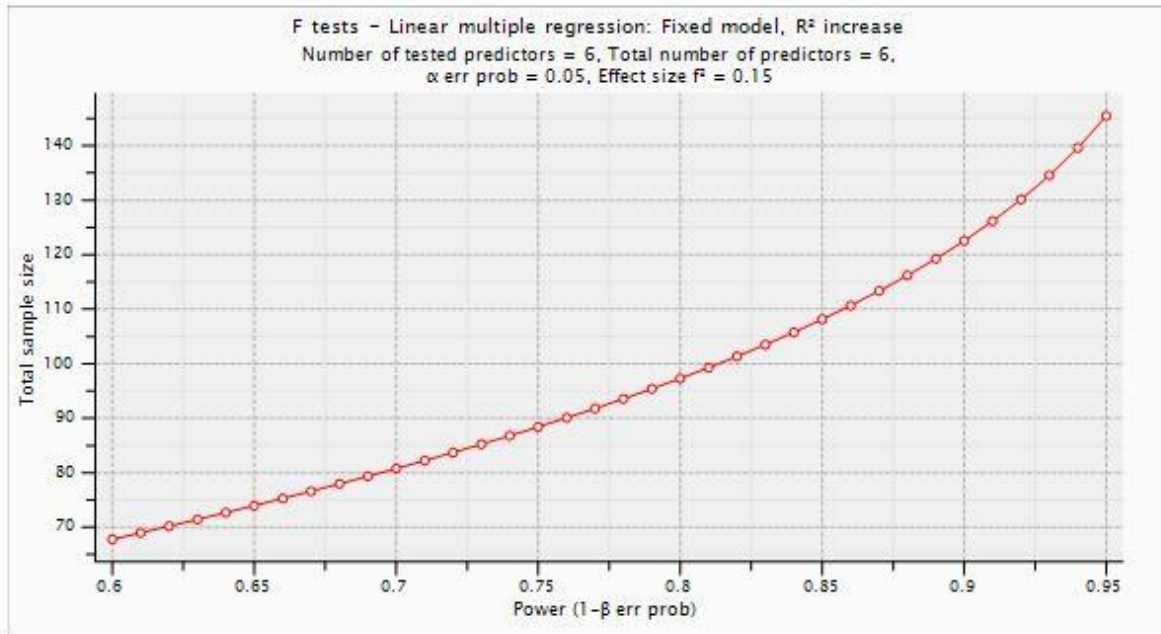


Figure 2 Power Analysis

APPENDIX B

Relationship Quality of Student Affinity (RQSA)

The following scale will be used (except where noted).

Strongly					Strongly
Disagree (1)	(2)	(3)	(4)	(5)	Agree
					(6)

Perceived Learning Gains

The following items ask you to reflect on how much your university has influenced your learning.

1. My university is helping me figure out who I am as a person
2. My university is helping me to be the best student I can be academically
3. My university is helping me explore potential career interests
4. My university is assisting me in becoming a more involved citizen
5. My university is assisting me in developing more self-confidence
6. My university is helping prepare me to become a more effective leader
7. My university has made me aware of diversity issues

Satisfaction

The following items assess your overall satisfaction with your university.

8. I am satisfied with my social life at my university
9. I have had a positive experience at my university
10. This university was the right choice for me
11. I am challenged as a student at my university

Institutional Fit

The following items ask you to reflect on how well you think you fit at your university.

12. I feel I fit in here at this university
13. I never feel marginalized or discriminated against at this university
14. I feel like I belong at my university
15. I feel connected to my university
16. I care about my university
17. I am proud to be a student at my university
18. I get defensive whenever people say something negative about my university
19. I would recommend my university to others
20. I would choose my university again if I could do it over
21. It is important to me to graduate from my university
22. I am interested in remaining connected with my university after I graduate
23. I plan to volunteer at my university at some point in the future
24. I plan on contributing financially to my university at some point in the future

Quality of Teaching

The following items ask you to reflect on the quality of teaching you experience at your university. Teaching is defined as the instruction you receive by faculty or instructional staff in formal coursework.

25. My instructors are prepared for class
26. My instructors are knowledgeable about what they teach
27. My instructors are passionate about teaching undergraduate students
28. My instructors are available when I have a question

Quality of Student Services Opportunities

The following items ask you to reflect on the overall quality of student services opportunities on campus. Please check Not Applicable (N/A/) only if you have not taken advantage of the specific opportunity

29. My university provides high quality leadership opportunities (e.g. student government, student organizations, fraternities and sororities)
30. My university provides a high quality new student orientation and registration process
31. My university provides high quality study abroad opportunities

Quality of Student Services Staff

The following items ask you to reflect on the quality of the student services staff on your campus. These items are **not** in reference to faculty or instructors. Please check Not Applicable (N/A) only if you have not interacted with the specific staff.

32. Staff at my university do what is best for students
33. I have positive relationships with those university staff members I interact with on a regular basis
34. Staff at my university provide answers to my questions quickly
35. I feel supported by staff at my university to achieve my goals
36. Staff at my university treat me with care

Quality of University Facilities

The following items refer to the quality of university facilities. Please only mark “N/A” if you have no direct experience with using this facility on your campus.

- 37. My university provides high quality academic facilities (e.g. classrooms and lab's)
- 38. My university provides high quality recreational facilities (e.g. hours of service; equipment)
- 39. My university provides high quality residence halls (e.g. safety, cleanliness, space)

Initial Impressions about the University

The following items ask you to reflect on your initial impressions of this university before you made the decision to attend.

- 40. I felt that a degree from this university would provide job opportunities
- 41. I felt this university would provide strong research opportunities for students
- 42. This university offered the academic programs I was interested in
- 43. I have always wanted to be a Badger
- 44. I knew the university had a good reputation

Frequency of Out-of-Class Activities

The following items ask you to reflect on your experiences with out-of-classroom activities at your university. Please note the difference in scale (Frequency) in these items.

Never (1)

Once a Semester (2)

Once a Month (3)

Twice per month (4)

Once a week (5)

More than once a week (6)

45. I communicate with my instructors about academic concerns (e.g. face to face or email)
46. I participate in academic activities offered by my university (e.g. lectures, programs, research symposia, academic clubs)
47. I participate in social or recreational activities offered by my university (e.g. intramurals, movies, dances)
48. I participate as a spectator and supporter of athletic events
49. I spend time with a core group of friends who are very important to me
50. I participate in student organizations
51. I volunteer my time in the community

Demographics

The following items ask you to share some information about yourself.

52. Classification (Freshman, Sophomore, Junior, Senior)
53. Resident Status (In-state, Out-of-state)
54. Sex (Female, Male, Prefer to not indicate)
55. Age (18-19) (20-21) (22-23) (24 or older)
56. Race
 - a. African American
 - b. American Indian
 - c. Asian
 - d. Hispanic
 - e. Native Hawaiian/Pacific Islander

- f. 2 or more Races
- g. White
- h. Prefer not to indicate

57. Are you an international student? Yes or No

58. Approximate cumulative GPA

- a. 0 - 1.5
- b. 1.6 - 2.0
- c. 2.1 - 2.5
- d. 2.6 - 3.0
- e. 3.1 - 3.5
- f. 3.5 or above

59. Living arrangement

(On campus – residence hall) (Off campus – by myself) (Off campus with roommates)

(Off campus with parents/guardians) (Off campus with relatives – parents/guardians)

60. In what rank was this university on your list of possible choices before you enrolled?

(1st) (2nd) (3rd) (4th) (5th or lower) (It was not on my list)

61. About how many hours per week did you work in an on-campus job this academic

year?

(1 - 5) (6 - 10) (11 - 15) (16 - 20) (21 - 25) (26 - 30) (30 or >)

62. Please indicate the approximate dollar amount you received in scholarships and

grants this academic year

(\$1 - \$5000) (\$5001 - \$10,000) (\$10001 - \$15,000) (\$15,000 or >)

APPENDIX C



Research Integrity & Compliance Review Office
Office of Vice President for Research
Fort Collins, CO 80523-2011
(970) 491-1553
FAX (970) 491-2293

DATE: September 28, 2012

TO: Nathalie Kees, Education
Lori Berquam, Education

A handwritten signature in cursive script that reads "Janell Barker".

FROM: Janell Barker, IRB Coordinator
Research Integrity & Compliance Review Office

TITLE: Affinity Development in Undergraduates at a Large Research Institution

IRB ID: 110-13H

Review Date: September 28, 2012

The Institutional Review Board (IRB) Coordinator has reviewed this project and has declared the study exempt from the requirements of the human subject protections regulations as described in 45 CFR 46.101(b)(2): Research involving the use of educational tests,....survey procedures, interview procedures or observation of public behavior, unless: a) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects.

The IRB determination of exemption means that:

- **You do not need to submit an application for annual continuing review.**
- **You must carry out the research as proposed in the Exempt application**, including obtaining and documenting (signed) informed consent if stated in your application.
- **Any modification of this research should be submitted to the IRB Coordinator through an email prior to implementing any changes**, to determine if the project still meets the Federal criteria for exemption. If it is determined that exemption is no longer warranted, then an IRB protocol will need to be submitted and approved before proceeding with data collection.
- **Please notify the IRB Coordinator if any problems or complaints of the research occur.**

Please note that you must submit all research involving human participants for review by the IRB. **Only the IRB may make the determination of exemption**, even if you conduct a similar study in the future.

APPENDIX D

Initial invitation email message sent to participants.

Hello!

My name is Lori Berquam and I am a current doctoral student at Colorado State University in Fort Collins, Colorado. I am pursuing a degree in Higher Education Leadership and my research interests lay in the development of affinity and loyalty in undergraduate students. I am also the current Dean of Students [REDACTED].

The principle investigator supervising this research is Dr. Nathalie Kees, School of Ed Faculty at Colorado State University. She can be reached at 970-491-6720 or by emailing her at nathalie.kees@colostate.edu.

Specifically, I am interested in what factors contribute to the sentiment of loyalty some students have at the [REDACTED] for the school.

To study this issue, I have requested a random sample of currently enrolled students from the [REDACTED]. Your name was selected and I would like to invite you to participate by taking a 12-15 minute on-line survey. In this email there is a link to the survey instrument.

To access the survey please click here. If the survey does not open automatically, please copy and paste the following link to your internet browser's address bar:

<http://studentvoice.com/>

The first page of the instrument is a consent form. If you choose to participate in this study you will need to give your consent for me to use your responses. All information will be confidential and produced in aggregate form so no identifying information is present in the compiled study.

Participation is entirely voluntary. You can expect two follow-up reminders about the survey. The survey will close on November 15, 2012.

Thank you in advance for your consideration of this request.

Sincerely,

Lori Berquam

Doctoral Student

Colorado State University

APPENDIX E

First reminder email sent to participants.

Hello!

This is a reminder message about the survey you have been randomly selected to receive. I hope you will take the time to read my email and consider participating!

My name is Lori Berquam and I am a current doctoral student at Colorado State University in Fort Collins, Colorado. I am pursuing a degree in Higher Education Leadership and my research interests lay in the development of affinity and loyalty in undergraduate students. I am also the current Dean of Students [REDACTED].

The principle investigator supervising this research is Dr. Nathalie Kees, School of Ed Faculty at Colorado State University. She can be reached at 970-491-6720 or by emailing her at nathalie.kees@colostate.edu.

Specifically, I am interested in what factors contribute to the sentiment of loyalty some students have at the [REDACTED] for the school.

To study this issue, I have requested a random sample of currently enrolled students from the [REDACTED]. Your name was selected and I would like to invite you to participate by taking a 12-15 minute on-line survey. In this email there is a link to the survey instrument.

To access the survey please click here. If the survey does not open automatically, please copy and paste the following link to your internet browser's address bar:

<http://studentvoice.com/>

The first page of the instrument is a consent form. If you choose to participate in this study you will need to give your consent for me to use your responses. All information will be confidential and produced in aggregate form so no identifying information is present in the compiled study.

Participation is entirely voluntary. The survey will close on November 15, 2012.

Thank you for your consideration of this request.

Sincerely,

Lori Berquam

Doctoral Student

Colorado State University

APPENDIX F

Second reminder email message sent to participants.

Hello!

This is a second reminder message about the survey you have been randomly selected to receive. I hope you will take the time to read my email and consider participating!

My name is Lori Berquam and I am a current doctoral student at Colorado State University in Fort Collins, Colorado. I am pursuing a degree in Higher Education Leadership and my research interests lay in the development of affinity and loyalty in undergraduate students. I am also the current Dean of Students [REDACTED].

The principle investigator supervising this research is Dr. Nathalie Kees, School of Ed Faculty at Colorado State University. She can be reached at 970-491-6720 or by emailing her at nathalie.kees@colostate.edu.

Specifically, I am interested in what factors contribute to the sentiment of loyalty some students have at the [REDACTED] for the school.

To study this issue, I have requested a random sample of currently enrolled students from the [REDACTED]. Your name was selected and I would like to invite you to participate by taking a 12-15 minute on-line survey. In this email there is a link to the survey instrument.

To access the survey please click here. If the survey does not open automatically, please copy and paste the following link to your internet browser's address bar:

<http://studentvoice.com/>

The first page of the instrument is a consent form. If you choose to participate in this study you will need to give your consent for me to use your responses. All information will be confidential and produced in aggregate form so no identifying information is present in the compiled study.

Participation is entirely voluntary. The survey will close on November 15, 2012.

Thank you for your consideration of this request.

Sincerely,

Lori Berquam

Doctoral Student

Colorado State University

APPENDIX G

Final message of gratitude sent to all participants.

Hello!

Thank you for taking the time to complete my survey. I realize how valuable your time is and using 10 minutes to take the survey is appreciated! If you have not taken it, you still can! It will remain open one more day. It will officially close on November 15, 2012 at 8:00am.

To access the survey please click here. If the survey does not open automatically, please copy and paste the following link to your internet browser's address bar:
<http://studentvoice.com/>

Enjoy the remainder of the semester!

Sincerely,

Lori Berquam
Doctoral Student
Colorado State University

APPENDIX H

This appendix presents the results for the analyses used to test the relationships among demographic variables, the relationships between the demographic variables and the independent variables, and the bivariate relationships between the independent variables for Research Question 1 and Research Question 2. These analyses were done in order to gain a comprehensive understanding of the data as well as to inform the decision about which covariates should be included in the primary analysis. The alpha level for the study was set at $\alpha = .05$. Any findings with p -values of less than .05 are presented as non-significant.

Relationships between Demographic Variables

To illustrate the relationships between variables cross tabulation with Pearson's Chi Square tests were used to test the bivariate relationships between demographic variables. As shown in Table 16, the results revealed that the relationship between living arrangement and age was significant ($\chi^2(1) = 216.35, p < .001$, Cramer's $V = .634$; a much higher proportion of 18-19 year olds lived on campus compared to 20+ year olds (71.3% and 9.5% respectively). The relationships between age with rank of university choice and with scholarship amount however were not statistically significant (all p values $> .05$).

Table 16

Frequencies and Percentages for Living Arrangement, Rank of University Choice, and Scholarship Amount by Age

	Age				χ^2	<i>p</i>
	18–19 Years		20 Years or Older			
	<i>n</i>	%	<i>n</i>	%		
Living Arrangement					216.35	<.001
On Campus	181	71.3	27	9.5		
Off Campus	73	28.7	258	90.5		
Rank of University Choice					.04	.839
1st Rank	178	70.1	202	70.9		
Not 1st on List	76	29.9	83	29.1		
Scholarship Amount					1.66	.436
\$0–\$5,000	179	70.5	209	73.3		
\$5,000–\$10,000	37	14.6	44	15.4		
More Than \$10,000	38	15.0	32	11.2		

Table 17 shows the relationship between age and living arrangement using cross tabulations and Pearson's Chi Square test, which as mentioned before was statistically significant. This table shows that 87.0% of students living on-campus were 18-19 year olds, compared to 22.1% of students who lived off-campus. The relationship between living arrangement with rank of university choice, and living arrangement and scholarship amount were again not statistically significant (all *p* values > .05).

Table 17
Frequencies and Percentages for Age, Rank of University Choice, and Scholarship Amount by Living Arrangement

	Living Arrangement				χ^2	<i>p</i>
	On Campus		Off Campus			
	<i>n</i>	%	<i>n</i>	%		
Age					216.35	<.001
18–19 Years	181	87.0	73	22.1		
20 Years or Older	27	13.0	258	77.9		
Rank of University Choice					.50	.480
1st Rank	143	68.8	237	71.6		
Not 1st on List	65	31.3	94	28.4		
Scholarship Amount					3.62	.164
\$0–\$5,000	142	68.3	246	74.3		
\$5,000–\$10,000	32	15.4	49	14.8		
More Than \$10,000	34	16.3	36	10.9		

Table 18 displays the relationship between rank of university choice and the three other variables of age, living arrangement and scholarship amount using cross tabulations and Pearson’s Chi Square test, showed the relationships between all three pairs of variables were not statistically significant (all *p*’s > .05). The same was true when looking at the relationship between scholarship amount and the other three variables of age, living arrangement, rank of university choice. None of the three relationships were statistically significant (all *p* values > .05). This is illustrated in Table 19.

Table 18

Frequencies and Percentages for Age, Living Arrangement, and Scholarship Amount by Rank of University Choice

	Rank of University Choice				χ^2	<i>p</i>
	1st Rank		Not 1st on List			
	<i>n</i>	%	<i>n</i>	%		
Age					.04	.839
18–19 Years	178	46.8	76	47.8		
20 Years or Older	202	53.2	83	52.2		
Living Arrangement					.50	.480
On Campus	143	37.6	65	40.9		
Off Campus	237	62.4	94	59.1		
Scholarship Amount					1.86	.394
\$0–\$5,000	280	73.7	108	67.9		
\$5,000–\$10,000	54	14.2	27	17.0		
More Than \$10,000	46	12.1	24	15.1		

Table 19

Frequencies and Percentages for Age, Living Arrangement, and Rank of University Choice by Scholarship Amount

	Scholarship Amount						χ^2	<i>p</i>
	\$0–\$5,000		\$5,000–\$10,000		More Than \$10,000			
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
Age							1.66	.436
18–19 Years	179	46.1	37	45.7	38	54.3		
20 Years or Older	209	53.9	44	54.3	32	45.7		
Living Arrangement							3.62	.164
On Campus	142	36.6	32	39.5	34	48.6		
Off Campus	246	63.4	49	60.5	36	51.4		

Rank of University Choice							1.86	.394
1st Rank	280	72.2	54	66.7	46	65.7		
Not 1st on List	108	27.8	27	33.3	24	34.3		

Relationships between University Experience Variables and Demographic Variables

Table 20 shows the results from a MANOVA model examining the effect of age on Teaching Quality, Student Services Opportunity, Student Services Staff, Quality of Facilities, Student Impressions and Extracurricular Involvement. The multivariate effect, as indicated by the F test at the bottom of the table was not statistically significant ($F(6,507) = 1.80, p = .098$, partial $\eta^2 = .021$). Looking at the univariate effects, only the effects of age on Student Services Opportunities, and age on Impressions about University were statistically significant ($F(1,512) = 4.94, p = .027$, partial $\eta^2 = .010$); and ($F(1,512) = 5.93, p = .015$, partial $\eta^2 = .011$ respectively). The 18-19 year old students tended to score higher on Student Services Opportunities ($M = 5.22, SD = .75$) compared to 20+ year olds ($M = 5.06, SD = .86$). The same was true about Student Impressions, where 18-19 year olds scored higher than 20+ year olds ($M = 5.20$ compared to 5.03, $SD = .79$ and $.80$).

Table 20
Means and Standard Deviations for University Experiences Variables by Age

	<i>n</i>	Mean	<i>SD</i>	<i>F</i>	<i>p</i>
Teaching Quality				<.01	.989
18–19 Years	240	5.03	.75		
20 Years or Older	274	5.03	.73		
Student Services Opportunities				4.94	.027
18–19 Years	240	5.22	.75		
20 Years or Older	274	5.06	.86		

Student Services Staff				2.43	.120
18–19 Years	240	4.95	.81		
20 Years or Older	274	4.83	.90		
Quality of Facilities				1.68	.196
18–19 Years	240	4.99	.84		
20 Years or Older	274	4.89	.85		
Student Impressions				5.93	.015
18–19 Years	240	5.20	.79		
20 Years or Older	274	5.03	.80		
Extracurricular Involvement				1.47	.225
18–19 Years	240	4.05	.82		
20 Years or Older	274	3.96	.79		

Note. Multivariate effect $F(6,507) = 1.80, p = .098, \text{partial } \eta^2 = .021$.

A MANOVA model was used to examine the multivariate effect of living arrangement on Teaching Quality, Student Services Opportunity, Student Services Staff, Quality of Facilities, Student Impressions and Extracurricular Involvement (see Table 21). The results showed that the multivariate effect was not statistically significant $F(6,507) = 1.08, p = .368, \text{partial } \eta^2 = .013$. Looking at the univariate relationships in Table 21, living arrangement only appeared to have an effect on Student Services Opportunities and Quality of Facilities ($F(1,511) = 4.13, p = .043, \text{partial } \eta^2 = .008$); and ($F(1,511) = 3.99, p = .046, \text{partial } \eta^2 = .008$ respectively). Respondents who lived on-campus tended to score higher on both variables compared to those living off-campus ($M = 5.22, SD = .77$ compared to $M = 5.07, SD = .84$ for Student Services Opportunities and $M = 5.03, SD = .83$ compared to $M = 4.88, SD = .85$ for Quality of Facilities).

Table 21
Means and Standard Deviations for University Experiences Variables by Living Arrangement

	<i>n</i>	Mean	<i>SD</i>	<i>F</i>	<i>p</i>
Teaching Quality				1.32	.251
On Campus	200	5.07	.75		
Off Campus	313	5.00	.74		
Student Services Opportunities				4.12	.043
On Campus	200	5.22	.77		
Off Campus	313	5.07	.84		
Student Services Staff				3.36	.067
On Campus	200	4.97	.82		
Off Campus	313	4.83	.88		
Quality of Facilities				3.99	.046
On Campus	200	5.03	.83		
Off Campus	313	4.88	.85		
Student Impressions				1.55	.213
On Campus	200	5.16	.76		
Off Campus	313	5.07	.82		
Extracurricular Involvement				.04	.844
On Campus	200	3.99	.79		
Off Campus	313	4.01	.81		

Note. Multivariate Effect: $F(6,506) = 1.09, p = .368, \text{partial } \eta^2 = .013$.

A MANOVA model was used to examine the multivariate effect of rank of university on Teaching Quality, Student Services Opportunity, Student Services Staff, Quality of Facilities, Student Impressions and Extracurricular Involvement (see Table 22). The results showed that the multivariate effect was statistically significant, ($F(6, 506) = 16.53, p < .001, \text{partial } \eta^2 = .164$). Looking at the univariate relationships in Table 22, rank of university had an effect on

Student Services Opportunities ($F(1, 511) = 9.56, p = .002, \text{partial } \eta^2 = .018$), Student Services Staff ($F(1, 511) = 5.58, p = .019, \text{partial } \eta^2 = .011$), Quality of Facilities ($F(1, 511) = 3.91, p = .049, \text{partial } \eta^2 = .008$), and Student Impressions ($F(1, 511) = 86.36, p < .001, \text{partial } \eta^2 = .145$). Respondents who ranked the university as their first choice school had higher mean scores for Student Services Opportunities, Student Services Staff, Quality of Facilities, and Student Impressions compared to students who did not rank the university first on their list.

Table 22
Means and Standard Deviations for University Experiences Variables by Rank of University Choice

	<i>n</i>	Mean	<i>SD</i>	<i>F</i>	<i>p</i>
Teaching Quality				.48	.489
1st Rank	362	5.04	.71		
Not 1st on List	151	4.99	.82		
Student Services Opportunities				9.56	.002
1st Rank	362	5.20	.81		
Not 1st on List	151	4.96	.81		
Student Services Staff				5.58	.019
1st Rank	362	4.94	.82		
Not 1st on List	151	4.75	.94		
Quality of Facilities				3.91	.049
1st Rank	362	4.99	.82		
Not 1st on List	151	4.82	.90		
Student Impressions				86.36	<.001
1st Rank	362	5.30	.70		
Not 1st on List	151	4.63	.83		
Extracurricular Involvement				.09	.764
1st Rank	362	4.01	.80		
Not 1st on List	151	3.98	.81		

Note. Multivariate Effect: $F(6, 506) = 16.53, p < .001, \text{partial } \eta^2 = .164$.

A MANOVA model was once again used to examine the multivariate effect of scholarship amount on Teaching Quality, Student Services Opportunity, Student Services Staff, Quality of Facilities, Student Impressions and Extracurricular Involvement, indicating that this effect was not significant ($F(12, 1008) = .795, p = .795, \text{partial } \eta^2 = .008$). Neither were the univariate effects of scholarship amount on any of the individual variables. This is shown in Table 23.

Table 23
Means and Standard Deviations for University Experiences Variables by Scholarship Amount

	<i>n</i>	Mean	<i>SD</i>	<i>F</i>	<i>p</i>
Teaching Quality				.40	.672
\$0–\$5,000	371	5.04	.74		
\$5,000–\$10,000	76	5.04	.74		
More Than \$10,000	66	4.95	.75		
Student Services Opportunities				.14	.873
\$0–\$5,000	371	5.14	.82		
\$5,000–\$10,000	76	5.09	.79		
More Than \$10,000	66	5.13	.83		
Student Services Staff				.04	.963
\$0–\$5,000	371	4.88	.88		
\$5,000–\$10,000	76	4.88	.80		
More Than \$10,000	66	4.91	.83		
Quality of Facilities				.49	.614
\$0–\$5,000	371	4.94	.86		
\$5,000–\$10,000	76	5.00	.80		
More Than \$10,000	66	4.86	.84		
Student Impressions				.15	.861
\$0–\$5,000	371	5.11	.79		
\$5,000–\$10,000	76	5.06	.90		
More Than \$10,000	66	5.12	.74		

Extracurricular Involvement				1.84	.160
\$0–\$5,000	371	4.04	.77		
\$5,000–\$10,000	76	3.88	.79		
More Than \$10,000	66	3.90	.96		

Note. Multivariate Effect: $F(12, 1008) = .66, p = .795$, partial $\eta^2 = .008$.

Relationships between Research Question 2 Independent Variables and Demographic Variables

Table 24 displays the relationship between living arrangement and the variables sex, resident status, GPA, and classification level using cross tabulations and Pearson’s Chi Square test. While the first two relationships were not statistically significant ($\chi^2 (1) < .01, p = .991$, Cramer’s $V < .001$); and ($\chi^2 (1) < .04, p = .851$, Cramer’s $V < .008$ respectively), the relationships between living arrangement and GPA, and living arrangement and classification level were significant ($\chi^2 (3) = 12.48, p = .006$, Cramer’s $V < .152$; and ($\chi^2 (3) = 325.97, p < .001$, Cramer’s $V < .778$ respectively). Respondents living on-campus tended to have higher GPAs: 44.2% of respondents living on-campus had GPAs 3.6 and above compared to 36.3% of those living off-campus, while 10.6% of respondents living on-campus had GPAs 2.6-3.0 compared to 22.1% of those living off-campus. Also a much higher proportion of respondents living on-campus were freshmen (73.1%) and sophomores (17.8%). Compare this to respondents living off-campus, where only 2.4% of them were freshmen and 25.4% sophomores.

Table 24

Frequencies and Percentages for Sex, Resident Status, GPA, and Classification Level by Living Arrangement

	Living Arrangement				χ^2	<i>p</i>
	On Campus		Off Campus			
	<i>n</i>	%	<i>n</i>	%		
Sex					<.01	.991
Female	144	69.2	229	69.2		
Male	64	30.8	102	30.8		
Resident Status					.04	.851
In State	148	71.2	238	71.9		
Out of State	60	28.8	93	28.1		
GPA					12.48	.006
0–2.5	7	3.4	14	4.2		
2.6–3.0	22	10.6	73	22.1		
3.1–3.5	87	41.8	124	37.5		
3.6–4.0	92	44.2	120	36.3		
Classification Level					325.97	<.001
Freshman	152	73.1	8	2.4		
Sophomore	37	17.8	84	25.4		
Junior	14	6.7	107	32.3		
Senior	5	2.4	132	39.9		

Table 25 looks at the relationship between rank of university choice and the variables sex, resident status, GPA, and classification level using cross tabulations and Pearson's Chi Square test, showing that rank of university choice was only significantly related to residency status ($\chi^2 (1) = 11.05, p < .001$, Cramer's $V = .143$). For those respondents who expressed that the institution was their first choice, a greater majority (75.8%) were in-state students compared

to those who expressed that the school was not their first choice (61.6% in the latter group were in-state).

Table 25
Frequencies and Percentages for Sex, Resident Status, GPA, and Classification Level by Rank of University Choice

	Rank of University Choice				χ^2	<i>p</i>
	1st Rank		Not 1st on List			
	<i>n</i>	%	<i>n</i>	%		
Sex					.68	.409
Female	267	70.3	106	66.7		
Male	113	29.7	53	33.3		
Resident Status					11.05	.001
In State	288	75.8	98	61.6		
Out of State	92	24.2	61	38.4		
GPA					7.04	.071
0–2.5	11	2.9	10	6.3		
2.6–3.0	73	19.2	22	13.8		
3.1–3.5	154	40.5	57	35.8		
3.6–4.0	142	37.4	70	44.0		
Classification Level					.15	.985
Freshman	112	29.5	48	30.2		
Sophomore	87	22.9	34	21.4		
Junior	85	22.4	36	22.6		
Senior	96	25.3	41	25.8		

Table 26 shows the relationships between scholarship amount and the variables of sex, resident status, GPA, and classification level using cross tabulations and Pearson’s Chi Square test, indicating that scholarship amount could only be significantly related to resident status ($\chi^2(2) = 20.12, p = < .001, \text{Cramer’s } V = .193$). A greater proportion of respondents receiving

between \$5,000-\$10,000 in scholarships were in-state students (87.7%) compared to those receiving \$10,000 or more (82.9%) and those receiving \$0-\$5,000 (66.2%).

Table 26
Frequencies and Percentages for Sex, Resident Status, GPA, and Classification Level by Scholarship Amount

	Scholarship Amount						χ^2	<i>p</i>
	\$0-\$5,000		\$5,000-\$10,000		More Than \$10,000			
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
Sex							.32	.854
Female	266	68.6	58	71.6	49	70.0		
Male	122	31.4	23	28.4	21	30.0		
Resident Status							20.12	<.001
In State	257	66.2	71	87.7	58	82.9		
Out of State	131	33.8	10	12.3	12	17.1		
GPA							10.17	.118
0-2.5	16	4.1	1	1.2	4	5.7		
2.6-3.0	62	16.0	22	27.2	11	15.7		
3.1-3.5	162	41.8	25	30.9	24	34.3		
3.6-4.0	148	38.1	33	40.7	31	44.3		
Classification Level							10.73	.097
Freshman	106	27.3	31	38.3	23	32.9		
Sophomore	98	25.3	8	9.9	15	21.4		
Junior	86	22.2	21	25.9	14	20.0		
Senior	98	25.3	21	25.9	18	25.7		

Table 27 displays the relationship between age and the variables of sex, resident status, GPA and classification level using cross tabulations and Pearson's Chi Square test. As indicated in the table, the relationships between age and sex, and age and resident status were not

statistically significant ($\chi^2 (1) = .58, p = .446$, Cramer's $V < .033$; and $\chi^2 (1) = .04, p = .843$, Cramer's $V < .009$ respectively). The relationship between age and GPA however was significant ($\chi^2 (3) = 10.45, p = .015$, Cramer's $V < .139$). While among 18-19 year olds 16.5% of respondents had GPA below or equal to 3, the same proportion among 20+ year olds was 26.0%. The relationship between age and classification level was also significant ($\chi^2 (3) = .423.94, p < .001$, Cramer's $V < .886$, which of course was anticipated. A much greater proportion of 18-19 year olds were freshmen (62.6%) and sophomore (35.4%) than 20+ year olds (.3% freshmen, and 10.8% sophomore). The reverse was true about junior and senior respondents.

Table 27
Frequencies and Percentages for Sex, Resident Status, GPA, and Classification Level by Age

	Age				χ^2	<i>p</i>
	18–19 Years		20 Years or Older			
	<i>n</i>	%	<i>n</i>	%		
Sex					.58	.446
Female	180	70.9	194	67.8		
Male	74	29.1	92	32.2		
Resident Status					.04	.843
In State	181	71.3	206	72.0		
Out of State	73	28.7	80	28.0		
GPA					10.45	.015
0–2.5	11	4.3	10	3.5		
2.6–3.0	31	12.2	64	22.5		
3.1–3.5	110	43.3	101	35.4		
3.6–4.0	102	40.2	110	38.6		
Classification Level					423.94	<.001
Freshman	159	62.6	1	.3		
Sophomore	90	35.4	31	10.8		
Junior	4	1.6	118	41.3		
Senior	1	.4	136	47.6		

Relationships between the Independent Variables of Research Questions 1 and 2

A MANOVA was conducted to test for differences between males and females on the subscale scores of Teaching Quality, Student Services Opportunity, Student Services Staff, Quality of Facilities, Student Impressions and Extracurricular Involvement revealed a significant multivariate effect ($F(6,507) = 2.264, p = .036, \text{partial } \eta^2 = .026$). Table 28 shows the univariate effects made by sex on each of the subscale scores, from which only the effect of sex on Student Services Staff was statistically significant ($F(1,512) = 8.54, p = .004, \text{partial } \eta^2 = .016$). The mean score on Student Services Staff for female respondents is 4.96 ($SD = .80$), while the same score for male respondents is 4.72 ($SD = .97$).

Table 28
Means and Standard Deviations for University Experiences Variables by Sex

	<i>n</i>	Mean	<i>SD</i>	<i>F</i>	<i>p</i>
Teaching Quality				.20	.651
Female	357	5.04	.74		
Male	157	5.01	.74		
Student Services Opportunities				3.71	.055
Female	357	5.18	.79		
Male	157	5.03	.87		
Student Services Staff				8.54	.004
Female	357	4.96	.80		
Male	157	4.72	.97		
Quality of Facilities				.20	.658
Female	357	4.95	.85		
Male	157	4.92	.85		

Student Impressions				.32	.569
Female	357	5.12	.80		
Male	157	5.08	.80		
Extracurricular Involvement				.11	.736
Female	357	4.01	.83		
Male	157	3.98	.75		

Note. Multivariate Effect: $F(6,507) = 2.264, p = .036$, partial $\eta^2 = .026$.

A MANOVA model was once again used to examine the effect of resident status on the subscale scores of Teaching Quality, Student Services Opportunity, Student Services Staff, Quality of Facilities, Student Impressions and Extracurricular Involvement, showing that this effect was indeed significant ($F(6,507) = 8.450, p < .001$, partial $\eta^2 = .091$). Table 29 looks at the univariate effects, showing that resident status had a significant effect on Student Services Staff ($F(1,512) = 4.80, p = .029$, partial $\eta^2 = .009$) and Student Impressions ($F(1,512) = 20.574, p < .001$, Partial $\eta^2 = .039$). For Student Services Staff, the mean score of in-state respondents was 4.83 ($SD = .86$), while the mean score for out-of-state students was 5.02 ($SD = .87$). Also for Student Impressions the mean score for in-state respondents was 5.20 ($SD = .80$), while the same measure for out-of-state respondents was 4.85 ($SD = .74$).

Table 29

Means and Standard Deviations for University Experiences Variables by Resident Status

	<i>n</i>	Mean	<i>SD</i>	<i>F</i>	<i>p</i>
Teaching Quality				2.18	.141
In State	370	5.00	.75		
Out of State	144	5.11	.72		
Student Services Opportunities				.06	.808

In State	370	5.13	.82		
Out of State	144	5.15	.80		
Student Services Staff				4.80	.029
In State	370	4.83	.86		
Out of State	144	5.02	.87		
Quality of Facilities				.26	.613
In State	370	4.95	.86		
Out of State	144	4.91	.81		
Student Impressions				20.57	<.001
In State	370	5.20	.80		
Out of State	144	4.85	.74		
Extracurricular Involvement				2.28	.132
In State	370	3.97	.82		
Out of State	144	4.09	.76		

Note. Multivariate Effect: ($F(6,507) = 8.450, p = .001, \text{partial } \eta^2 = .091$).

Table 30 shows the results from the MANOVA model examining the effect of GPA on Teaching Quality, Student Services Opportunity, Student Services Staff, Quality of Facilities, Student Impressions and Extracurricular Involvement, showing that the multivariate effect was significant ($F(18,1518) = 2.064, p = .005, \text{partial } \eta^2 = .024$). The univariate effect of GPA on Student Services Opportunities, as shown in the table, was also significant ($F(3,509) = 7.560, p < .001, \text{partial } \eta^2 = .043$). The mean Student Services Opportunities score was 5.38 for respondents with GPA 0-2.5, 4.86 for GPA 2.6-3.0, 5.30 for 3.1-3.5, and 5.06 for 3.6-4.0.

Table 30

Means and Standard Deviations for University Experiences Variables by GPA

	<i>n</i>	Mean	<i>SD</i>	<i>F</i>	<i>p</i>
Teaching Quality				1.62	.183
0–2.5	20	5.11	.65		
2.6–3.0	90	4.89	.79		
3.1–3.5	197	5.09	.70		
3.6–4.0	206	5.02	.76		
Student Services Opportunities				7.56	<.001
0–2.5	20	5.38	.68		
2.6–3.0	90	4.86	.98		
3.1–3.5	197	5.30	.66		
3.6–4.0	206	5.06	.84		
Student Services Staff				2.07	.103
0–2.5	20	4.82	1.15		
2.6–3.0	90	4.71	.87		
3.1–3.5	197	4.98	.82		
3.6–4.0	206	4.88	.86		
Quality of Facilities				1.10	.348
0–2.5	20	4.89	1.19		
2.6–3.0	90	4.83	.85		
3.1–3.5	197	5.02	.75		
3.6–4.0	206	4.92	.89		
Student Impressions				1.33	.263
0–2.5	20	5.21	.73		
2.6–3.0	90	5.12	.81		
3.1–3.5	197	5.17	.67		
3.6–4.0	206	5.02	.90		
Extracurricular Involvement				2.60	.051
0–2.5	20	3.77	.78		
2.6–3.0	90	3.86	.82		
3.1–3.5	197	4.10	.82		

Note. Multivariate Effect: $F(18, 1518) = 2.06, p = .005, \text{partial } \eta^2 = .024$.

A MANOVA model was used again to examine the effect of classification level on Teaching Quality, Student Services Opportunity, Student Services Staff, Quality of Facilities, Student Impressions and Extracurricular Involvement. Table 31 shows that the multivariate effect was statistically significant ($F(18,1428) = 1.96, p = .010, \text{partial } \eta^2 = .023$). while the univariate effects of classification level on Student Services Opportunities, Student Services Staff, and Student Impressions were also significant ($F(3,510) = 3.39, p = .018, \text{partial } \eta^2 = .020$); ($F(3,510) = 4.62, p = .003, \text{partial } \eta^2 = .026$); ($F(3,510) = 3.07, p = .028, \text{partial } \eta^2 = .018$). Tukey's posthoc analyses revealed that the mean for student services opportunities for freshman ($M = 5.27, SD = .75$) was significantly higher than the score for seniors ($M = 4.97, SD = .93$). For student services staff, the mean for freshman ($M = 5.08, SD = .74$) was significantly higher than the means for sophomores ($M = 4.76, SD = .90$) and juniors ($M = 4.75, SD = .93$). For student impressions, although the overall univariate effect was significant, the posthoc analyses did not reveal any significant differences between groups at $p < .05$.

Table 31

Means and Standard Deviations for University Experiences Variables by Classification Level

	<i>n</i>	Mean	<i>SD</i>	<i>F</i>	<i>p</i>
Teaching Quality				.66	.577
Freshman	151	5.09	.76		
Sophomore	112	4.99	.74		
Junior	118	4.98	.77		
Senior	133	5.04	.70		

Student Services Opportunities				3.38	.018
Freshman	151	5.27	^a	.75	
Sophomore	112	5.16	^{ab}	.75	
Junior	118	5.11	^{ab}	.79	
Senior	133	4.97	^b	.93	
Student Services Staff				4.62	.003
Freshman	151	5.08	^a	.74	
Sophomore	112	4.76	^b	.90	
Junior	118	4.75	^b	.93	
Senior	133	4.89	^{ab}	.86	
Quality of Facilities				2.56	.054
Freshman	151	5.10		.82	
Sophomore	112	4.86		.83	
Junior	118	4.88		.90	
Senior	133	4.88		.82	
Student Impressions				3.07	.028
Freshman	151	5.24	^{ab}	.73	
Sophomore	112	5.16	^{ab}	.75	
Junior	118	5.00	^{ab}	.83	
Senior	133	5.00	^{ab}	.86	
Extracurricular Involvement				.74	.526
Freshman	151	4.05		.83	
Sophomore	112	4.04		.81	
Junior	118	4.00		.82	
Senior	133	3.92		.75	

Note. Multivariate Effect: $F(18,1428) = 1.96, p = .010, \text{partial } \eta^2 = .023.$