Student Success Behaviors and Gender: Exploring the Impact on First-Year Students

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By

Sarah J. Ramage
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Abstract

College demographics are rapidly evolving, and one area of concern is the enrollment and retention rates of male students. The National Center for Educational Statistics reported that in 2010, 57 percent of undergraduate students were female (Weaver-Hightower, 2010). The same report stated that the percentage was projected to grow to 59 percent by 2018 (Weaver-Hightower, 2010). Between 1997 and 2007, female enrollment has risen dramatically faster than male enrollment, with a 29 percent jump in 10 years. Male enrollment increased by 22 percent in the same time (Weaver-Hightower, 2010). Over time, this growing gender imbalance in higher education has been termed “The Gender Gap.” It is important to note that college success and graduation holds implications for those outside of the higher education field, in that educational attainment is consequential for the labor market, marital formation, and childbearing (Brownstein, p. 47, 2010). These statistics are cause for attention in that changes in participation in the labor market will affect economic and demographic patterns (Ewert, p.825, 2012). As the statistics become apparent, the impact on gender equity, earning power, and gender relations has yet to be fully realized. Through the lens of Student Success Theories and gender research, this study aims to examine the relationship between success related behavior and gender among first year students.

This quantitative study aims to examine the behaviors of first-year students at a small private, religious institution located in an urban area in the Southern United States. The purpose of the study was to better understand the impact of gender and behaviors of first-year students on persistence. The main research question of this study is: Does gender and success related behaviors significantly influence persistence of first-year students?
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Chapter 1:

Introduction

In the midst of new student orientation during the summer of 2013, I found myself in a conversation with three male students. The students ranged in year, background, involvement and major. Our conversation evolved from talking about recent pop culture events, to what they anticipated in the upcoming semester, to what they wanted to do when they graduated. Upon hearing their aspirations, I naturally asked them where their aspirations of becoming a doctor or a world traveler came from. One student described his struggle with still being unsure of what he wanted to do when he graduated. They described life stories, connections with high school teachers, or things they had read about to explain their post-graduation dreams. From this point in the conversation, the three male students started to recognize among them differences in their college experiences. The also started discussing the original reasons why they enrolled in the university. While all three students were involved in leadership positions, it became clear that there were significant differences in the motivation each had for pursuing a bachelor’s degree. Of the three college students, one was told that he had to go to college by his parents. Another, described his pursuit of a degree as a means to an end, to make money. Last, the third male student spoke about how he did not know what he wanted to do, but came to college because he knew it would give him the tools he needed to make a change in the world.

While I sat and absorbed the stories of these young men, questions of my own began to form. These students were all pursuing the same achievement, but for very different reasons. They had described different perspectives on their experiences, and types of motivation that each had. Were these motivations impacting their experience? Were these
motivations impacting their academics? Were these motivations impacting their behavior? Ultimately, these questions provided enough reasons for me to pursue exploring the relationship between motivation and male college students further. With these students in mind, I began to investigate how student behaviors, specifically motivation impact the college experience.

Male College Students By The Numbers

College demographics are rapidly evolving, and one area of concern is the enrollment and retention rates of male students. The National Center for Educational Statistics reported that in 2010, 57 percent of undergraduate students were female (Weaver-Hightower, 2010). The same report stated that the percentage was projected to grow to 59 percent by 2018 (Weaver-Hightower, 2010). Between 1997 and 2007, female enrollment has risen dramatically faster than male enrollment, with a 29 percent jump in 10 years. Male enrollment increased by 22 percent in the same time (Weaver-Hightower, 2010). Over time, this growing imbalance between students who identify as male and female in higher education has been termed “The Gender Gap.” According the United States Census Bureau, the population of men and women in the United States has remained, 49 percent male and 51 percent female during this time span (Your Geography Selection).

Simultaneously, the higher education system in America has evolved to work from a consumerism model. As described by Saunders in Neoliberal Ideology and Public Higher Education in the United States (2010), the economics, structure, purpose of higher education, and the priorities of faculty and staff have transformed over the past 40 years to reflect neoliberal practices and ideology (p. 42). “Consumerism is an ideology of the business world- an ideology that defines the consumer as the ‘king’” (Michael, 1997, p. 117).
In the case of education, the “king” is the student. This model encourages the institution to focus on the wants and needs of the student, and to cater accordingly. It also encourages the consumer to utilize a cost/benefit analysis when making decisions about the benefit of the educational experience (Saunders, 2010, p. 47). The priority of an institution running on a consumerism model is often times reacting to the consumer, focusing on the satisfaction and retention of the student. With the college experience as the “product,” the institution catering to the consumer faces the challenge of keeping the student happy with the “product” in order to maintain enrollment or “sales.” If the consumerism model is successful, the result is retention, higher enrollment, and increased income at the college or university. The other result is a system, which serves the interest of capital (Saunders, 2010, p. 42). According to Michael (1997), a “consumerist philosophy for higher education is not only a recommended strategy but seems to be an acceptable strategy for progressive and proactive higher education leaders in the twenty-first century” (p. 127). Further, as stated by Cornwell and Stoddard (2001), consumer based education is predicted to grow and deeply influence the higher education community.

Most of these predicted changes are premised on the complete commodification and consumerization of education, so that "Dollars will follow the students more than the educators," and "Degrees will wither in importance." Students will take courses from "a plethora of different educational providers," but the leading pattern will be a mix of "brick and click.

Institutions with a consumerism effort hold the potential to lose focus of traditional liberal arts education. While liberal arts institutions only make up about two percent of colleges and universities in the country, they still hold a great amount of influence on
higher education (Cornwell and Stoddard, 2001). The practice and pedagogy used at these institutions serve as examples for other institutions, as well as inform the practice of those who go forth from liberal arts institutions to teach elsewhere. For purposes of this paper, “liberal arts focus” will refer to any “element of any U.S. bachelor’s degree program, that part of the degree that aims to expose students to broader forms of knowledge, reasoning, and critical inquiry, and ideally to developing the skills needed for civic participation” (Cornwell and Stoddard, 2001). When the institution choses to focus on the student as a consumer rather than a developing member of society, liberal arts values are diminished simply due to the fact that one value must often times come before the other. Consumer based education holds the potential to work hand in hand with liberal arts education, however, when the ability to think critically, cultivation of knowledge, lifelong learning, and the ability to participate in a global society are seen as a value or product of higher education by the consumer, or in this case by the student and his or her family.

**Background and History**

As statistics indicate the current state of gender issues in higher education, the history of surrounding issues are important to note. The history of coeducation laid the foundation of gender comparisons at colleges and universities. Prior to coeducation, male and female success was measured separately, on what were most likely different instruments, depending on the institution. Once coeducation was introduced, a new dynamic of comparison between men and women was created. While the gender gap in higher education looks at the increase in female enrollment and graduation, it is a dramatic shift
from the gender comparisons that were made at the time when coeducation was introduced in the United States.

The dynamic of gender comparison at the higher education level was created in recent history, when after the Civil War coeducation was one of the major changes in the academic community (Thelin, 2004, p. 97). Before the Civil War, most women were prohibited from working towards a bachelor's degree. By 1940, 40 percent of enrollment in higher education institutions could be attributed to women (Thelin, 2004, p. 226). Around this time, the rate of college completion rose faster for females than males, due in part “because of the rise in the proportion of families with college-educated parents and partly as a strong residual trend” (Diprete & Buchmann, 2006, p. 1). The gap widened further in 1950, when only 23.9% of college graduates were women (Jacobs, 1996, p. 156).

Although coeducational higher education was introduced in the nineteenth century, it is clear that equal representation of gender was not an immediate effect. While the intent of the creation of the coeducation system seemed to aim to provide equal access and opportunity, the change was met with struggles and challenges for the institution and students.

“The Reformers’ ideal was to provide equal educational opportunities to young women and men to offer them the experience of studying and working together. The improvements in access for women, however, were frequently offset by unequal treatment on campus and in the curriculum” (Thelin, 2004, p. 182).

An example of the inequalities experienced by men and women could be seen in the admissions process at institutions that prior to co-education were all male or female communities. It was common practice at many of these institutions to conduct more
rigorous or higher standards in their admissions process for the gender that previously had not been admitted to the institution (Thelin, 2004, p. 346). The result of this practice, and the inequities, was that formerly all-male institutions tended to gain while former women’s colleges lost (Thelin, 2004, p. 346). Increased access to higher education for women also resulted in an increase in “women’s college attainment in the period before the 1930’s” (Goldwin and Katz, 2011, p. 379). This was due to greater access to more institutions, as well as the fact that many of the coeducation institutions were less expensive for students because they were public (Goldwin and Katz, 2011, p. 379).

While access to higher education increased for female students, it should be noted that privilege that male students were originally afforded by the higher education system still remained. Male students still attended institutions that were designed for and by white men. Until the twentieth century, this system had been exclusive to rich, white male students. In the face of this privilege, it seems as though male students were enrolling and succeeding less in higher education than females.

The pipeline to higher education influenced enrollment into colleges and university as well. Outside the realm of higher education in the twentieth century, the proportion of students in primary and secondary schools were female (Jacobs, 1996, p. 156). Since 1890, female enrollment among 5-19 year olds has exceeded 90% of men’s rate since as early as 1850 (Jacobs, 1996, p. 156). Until the GI Bill, women surpassed men in median years of school (Jacobs, 1996, p. 156). Considering the creation of the coeducation institution in the 1800’s, the enrollment of females in colleges and universities could seem inconsistent with the number of female students graduating from high school.
In recent history, research concerning gender and higher education reached a peak in the 1990's when several publications were produced that explored the educational disadvantages of female students (Weaver-Hightower, 2016, p. 471). Publications such as How Schools Shortchange Girls (1992), Failing at Fairness (1994), School Girls (1994), and Reviving Ophelia (1994), described and educational landscape where female students suffered “psychological damage and educational neglect” (Weaver-Hightower, 2016, p.471). The result was widespread attention and further understanding of the relationship between gender and education (Weaver-Hightower, 2016, p. 472).

While access to higher education for women may have increased, the experience for a female student is far different than that of a male student. As recent as 2015, The Washington Post published an article describing how enrollment practices at private institutions are exempt from sex discrimination, making it more difficult for female students to gain acceptance at elite colleges and universities (Birger, 2015). Once enrolled, female students encounter higher rates of sexual assault and violence than male students. According to the U.S. Department of Justice, one in five women are targets of sexual assault compared to one in sixteen men, while in college (Krebs, Lindquist, Warner, Fisher, Martin, 2007). Further, the degrees attained by female students, while higher in numbers, tend to hold less weight when it comes to earning potential in the workforce. Weaver-Hightower demonstrates in Where the Guys Are: Males In Higher Education, that as of 2010, women needed at least one more degree in order to make a similar salary to male counterparts (Change, 2010). Data such as this requires note that while access and attainment for female students may be increasing, the experience of female students in higher education is far from equitable.
The examination of the dynamics of female students in education was the focus of the early 1990’s, however a recent shift in research focus has begun to explore the male experience (Weaver-Hightower, 2016, p. 472). Investigations about the gender gap have been able to identify shifts in enrollment and potential contributing factors, but recent research about the causation of the gender gap has been inconclusive (DiPrete & Buchmann, 2006, p.1). Existing empirical studies do not provide a sufficient explanation for this trend (DiPrete & Buchmann, 2006, p. 1, Jacob 2002). This, however, has not discouraged researchers from theorizing why the gender gap emerged. In “Where the boys aren’t: non-cognitive skills, returns to school and the gender gap in higher education” by Brian A. Jacob explores potential contributing factors to the gender gap in higher education (2002). In his article, Jacob identifies that the gender gap first became evident in the late 1970’s (2002, p. 589). He goes on to explain that this could have been due in part to the “predominance of young men in the military and prison” (2002, p. 589). Charles and Luoh (2003) claim that the gap in enrollment could be the result of increased “uncertainty” in the returns to college education for men (DiPrete & Buchannan, 2006, p. 2). DiPrete and Buchannan theorize that “higher education provides a woman insurance against living in poverty through three mechanisms: higher wages, lower rates of out-of marriage childbearing, and (because of educational homogamy) lower risks of divorce (2006, p. 2). This idea claims that rather than lack of incentive for males to enroll, there is greater incentive for women to enroll, resulting in greater numbers of females in higher education. These ideas and theories could in fact contribute to the gender gap, but each idea alone would not be enough to explain the current difference in enrollment between male and female students (Jacob, 2001, p. 590).
With this historical context, one may recognize that there have been great strides in the past century, which have allowed for greater opportunity and access for female students. While these strides are positive and should be celebrated, they have happened simultaneously with the decline of enrollment and performance of male students. This by no means implies that one gender must experience less success at the higher education level in order for the other to do well; but indicates a need for further research into how each gender experiences higher education, and how the system meets the needs for each.

**Research Question**

Guided by the research about the male experience in college, and theory relating student behavior to success, this study aims to explore behaviors that are linked to success, among men and women in the first year. The purpose of looking at this relationship is to better understand the existing difference in behaviors demonstrated between male and female students in the first-year of college. The research question guiding this study is:

Does gender and success related behaviors significantly influence persistence among first-year students?

**Significance of Study**

The complex issues associated with gender and experience call into question the connection between the mission and products of higher education. The “gap” goes beyond enrollment and graduation. While the male population shows evidence of failure to succeed or embrace the college experience, and institutional focus on attracting students,
and keeping them satisfied, there appears to be a disconnect occurring. This failure is defined by the difference in performance and behaviors of men and women at colleges and universities. The 2009 National Survey of Student Engagement (NSEE) indicated that male students are behind female students in overall engagement (Weaver-Hightower, 2010). While male students are more engaged in tutoring resources and meeting with faculty outside of class, female students are more engaged in activities such as preparation for class, community outreach, independent learning, and participation in study abroad. This trend is important as the types of engagement the female students exhibit represent powerful protective factors for retention (Brownstein, 2010, p. 48).

Further, the issues are intensified when observing the potential outcome of less education for half of the population (males). Kristof and WuDunn identify the injustice of ignoring one gender in *Half The Sky* (2010). When an injustice or unfairness is committed to one gender or minority population, the result is an opportunity to find the solution (Kristof and WuDunn, 2010, p. xviii). If the difference in enrollment and retention of males in higher education continues to increase, the implications for the population and society are unknown, but exemplify the different experience that men and women are having while in college. As a part of American society, half of the population is demonstrating that it is unable to be successful in the current higher education structure. If half of the population is entering society uneducated, what does that say about the responsibility of the education system in the democratic system? The trends that have been identified, while not conclusive, indicate the need for further exploration and examination through statistics and different theoretical lenses.
In *To Do Justice*, by Rebecca Todd Peters and Elizabeth Hinson-Hasty (2008) the question is raised, “Is not the earmark of a democratic society its ability to educate all of its children?” (Riggs, p. 43). If this disconnect is occurring, according to a democratic perspective, then institutions are failing. With male student enrollment and retention declining, the chance to develop into an education citizen declines as well, for those who do not attend or drop out of college. The challenges that will face society as a result are unknown, but are currently being predicted.

While women are more likely to enroll in colleges and universities, studies show that they are also more likely to graduate and men are more likely to drop out (Weaver-Hightower, 2010). In college, women get better grades and are excelling in two-thirds of the National Survey of Student engagement categories (Weaver-Hightower, 2010). This study indicates that women are succeeding in every aspect of college at a higher rate than men. Beyond undergraduate graduation, women are achieving advanced degrees at a higher rate as well (Weaver-Hightower, 2010).

As the imbalance in enrollment and degrees between the genders is recognized, the question of significance could be called into question. In fact, it is important to note that college success and graduation holds implications for those outside of the higher education field, in that educational attainment is consequential for the labor market, marital formation, and childbearing (Brownstein, p. 47, 2010). These statistics are cause for attention in that changes in participation in the labor market will affect economic and demographic patterns (Ewert, p. 825, 2012). As the statistics become apparent, the impact on gender equity, earning power, and gender relations has yet to be fully realized.
Limitations

This study will be limited to the use of data from a single four-year, private not-for-profit institution with an approximate size of about 3,500 students. The institution is located in the Southern region, close to the urban area of a large city. The data is provided by a third party survey, MAP-Works. Because of this, the study is unable to access the raw data collected upon survey completion. It does not examine the specific motivating factors that are associated with gender and behaviors, only the behavior in relation to gender.

This study is also limited due to its binary approach to gender. The data approaches this topic from a singular lens of male and female according to the reports provided by the institution. It should be noted that gender identity was not asked as a part of the survey. While the study examines the research question between male and female students, this topic in regard to other subpopulations (non-athletes, students of color, LGBTQ) remains for further study.

Definitions of Terms

According to the Board of Directors for NODA (Association For Orientation, Transition and Retention in Higher Education)(OTR Definitions- NODA), the term retention is defined “as student progression through higher education, focusing primarily on student persistence (i.e. term to term) through the beginning of the second year at the same institution, which the goal being graduation from that institution and/or achievement of personal educational objectives”. For purposes of this study, this definition of retention will be used.
The term *persistence* is defined as enrollment at the institution from term to term. This definition falls in line with the NODA definition of retention, mentioned above.

According to Kuh, Kinzie, and Buckley, the definition of *student success* typically includes components that are quantifiable such as grades, enrollment, and persistence to the sophomore year (2006). “Many consider degree attainment to be the definitive measure of student success” (Kuh Kinzie and Buckley, p. 5, 2006).

**Summary**

Based on the research conducted and outcome of this study, this dissertation provides information and insight into the relationship between behaviors related to success in the first year of college and gender, in the second semester of the first year. It holds the potential to help administrators identify students who may be at a higher risk to leave the institution by gathering data and information from students early in the first year. The results of the study should help institutions interested in increasing retention rates, specifically among the male or female populations. It could also inform retention practices among administrators who are responsible for programing and outreach to at risk populations. Results of this study could potentially result in a starting point for a more refined research agenda.

The second chapter reviews the relevant literature and identifies conceptual models for understanding the gender-gap in higher education. Relevant literature includes but is not limited to Bean’s (1980, 1985) Student Attrition Model, Self Determination Theory (Ryan and Deci, 2000), and The Social Cognitive Career Theory (Lent, Brown and Hackett, 1994). Further, Michael Kimmel’s research in from the book *Guyland* (2008) is explored as a key
lens for this study. These pieces of literature illuminate common terms used throughout
the concepts and theories, allowing for further discussion of these factors in relation to first
year persistence. The third chapter describes the research methodology of the study,
including definitions, research design and data selection. The results are reported in
Chapter 4 and Chapter 5 summarizes the findings, and describes further implications and
the need for future research.
Chapter Two:

Review of Literature

Literature Review

For this study, a literature review was conducted to examine key research and current concepts related to motivation and male students in the higher education setting. On-line databases including ProQuest, EBSCOhost, JSTOR, Electronic Journal Finder and Google Scholar were utilized to examine various types of sources. Search terms such as motivation, retention, gender, self-efficacy, competence, persistence, and higher education were used. The review consists mainly of research written since 1990, but incorporates or mentions theory from earlier years as well.

In an article published in the Chronicle of Higher Education in 2010, Thomas Mortensen, Senior Scholar at the Center for the Study of Opportunity in Higher Education recognized a shift in male enrollment in higher education. He stated that the statistics for men attending college have dramatically changed since the 1970’s when “56 % of students who earned bachelor’s degrees were men” (Mortensen, 2008, p. 47). By 1997, the statistics had reversed with women earning 56 percent of bachelor’s degrees (Mortensen, 2008, p. 47).

Since the 1970’s there has been an increase in female enrollment and matriculation and there has been a decrease in male enrollment and matriculation. The National Center for Education Statistics “projects that by 2019 women will account for 59% of total undergraduate enrollment and 61 percent of total post baccalaureate enrollment at the nation’s colleges and universities” (Schmidt, 2010).
Gender Specific Theory


The case for men’s studies can best be made by demonstrating that men’s studies perspectives are not only compatible with, but are essential to, the academic and political projects entailed by the feminist reconstruction of knowledge initiated by women's studies (p. 263).

It is with this mindset that this research moves forward to better understand the difference in gender experiences, as well as to better understand the educational climate for all students. It should be noted also, that there are specific subsets of students and theory that deserve recognition, research, and further discussion. Primarily, male students of color, LGBT and queer theory are areas of research that could shine light on the experience of smaller groups of students facing problems with retention. For purpose of this study, theory and research pertains to the general male population.

Guyland

Pluralistic ignorance is a key component in the theory and research of Michael Kimmel, in the 2008 publication of *Guyland*. He identifies this phenomenon as the misperception that one is a part of the minority population. For instance, if a female held the assumption that all females love the color pink, when in fact that female preferred the color blue. This would be a misperception based on the fact that not all females identify pink as her favorite color, but could be a misperception if one had never interacted with another female who admitted having a different favorite color.
Referenced by Laker, this “ethnographic study paints a distressing picture of the perceived norm for collegiate male culture” (p. 162). In his book, Kimmel defines Guyland as the “liminal undefined timespan between adolescence and adulthood,” and as a time that is unique to men in the United States in current society (2008, p. 4). During this timeframe, men have access to all of the tools of adulthood without the moral and familial constraints that urge sober conformity (Kimmel, 2008, p. 43). Kimmel (2008) goes on to explain that Guyland is all encompassing during this timeframe; it is not just an age. This developmental stage incorporates all that is around the man: culture, media, family, friends, schools and more. *Guyland* explores how men experience developing their own identity and masculinity through the constructs of societal norms. These norms have changed, as men now must experience their masculinity as consumers, rather than providers or protectors due to the shift in social and economic changes in the United States over the past several decades (Kimmel, 2008, p. 17). Norms have also changed as women have entered every arena, including education and the workforce. In arenas where men used to validate their masculinity (male dominated professions, schools, etc.), they are now competing with women (Kimmel, 2008, p. 18). The result of this climate for men in this age group, is that they feel as though they must live up to an idea of masculinity that they did not create (Kimmel, 2008, p. 43).

In order to live up to this idea, men typically adhere to what Kimmel terms “guy code.” This idea includes the “rules” of what it means to be a man, and often includes items such as “don’t cry,” “never give up,” or “take it like a man.” These rules lay the foundation for Guyland, providing direction for men as they develop as to what it means to be a man in American society (Kimmel, 2008, p. 45). As a man experiences this developmental period,
these rules are emphasized by other men, society, the media, and become accepted beliefs or practice.

Kimmel (2008) explains that there are three distinct cultural dynamics of Guyland, which influence the norms and rules that men adhere to. Initially, the “Culture of Entitlement” influences how men demonstrate power. This culture is expressed when a man subscribes to “guy code,” and feels entitled to power or position, by becoming a man through hard work (p. 60). This dynamic is unique to men, according to the author, in that “even when they [men] feel powerless, unlike women, men feel entitled to power” (Kimmel, 2008, p. 60). Ideas such as this can be exhibited in “guy code” rules such as “work hard,” or “take it like a man.” The result is that when a man adheres to these rules, he expects or feels entitled to power or position as a result (Kimmel, 2008, p. 60).

The “Culture of Silence,” is the second cultural dynamic that plays a part in creating Guyland. This culture is the result of being afraid of being shunned, or turned against, if a man says something (Kimmel, 2008, p. 60). Examples of this culture can be seen when a man does not say something to a group of friends when a sexist comment is made, or when bullying occurs. Through this culture, men learn the rule of not saying anything. The danger of this culture lies in that it perpetuates the problem, and sometimes violence. Through silence, the message is sent that others support the “code” (Kimmel, 2008, p. 60).

Similarly, the “Culture of Protection,” perpetuates negative behaviors by sending a similar message. Contrary to the other two cultural dynamics, the “culture of protection,” is demonstrated by those around the male. As discussed previously, Guyland is not only a timeframe or development period. It incorporates all things, people, and places, around the man at the time between adolescence and adulthood. This cultural dynamic exemplifies
this characteristic of Guyland. The “Culture of Protection,” describes behavior of others in
the community (family, teachers, friends) who look the other way when a male engages in
negative behavior. Like the “culture of silence,” this culture sends the message to everyone
around that it is the norm, and the behavior and culture is supported by others.

Kimmel’s (2008) theory relies heavily on the idea of pluralistic ignorance and how it
influences behavior. His theory is different in that it takes historical context and current
society norms into account when exploring the specific challenges males face during their
passage through Guyland. His ethnographic approach allows one to look at the gender gap
through the lens of modern American culture, while at the same time, recognizing that this
theory applies uniquely to the time of publication due to the fact that he describes Guyland
as a result of current social and economic constructs in American society.

Mortenson’s Theory

Prior to Kimmel’s (2008) publication, Thomas G. Mortenson (1999) explored this
phenomenon from a different theoretical perspective. He looked at the gender gap as an
issue created by the fact that “genders appear to be living in parallel universities, but are
subject to different influences. “(p. 12). Through Mortenson’s (1999) theory, three
primary influences explain the differences in performance and success between male and
female students.

First, he describes family as a contributing factor to how males and females experience
education. In recent history, the “traditional” family structure has changed dramatically,
and the changing dynamics affect the development of boys and girls differently. He goes on
to explore schools as an influence in the educational experience. There is currently
research that girls are more successful in the K-12 system (which would indicate a
difference in intake of new students into higher education) (Mortenson, 1999, p. 13). This fact alone indicates that girls are having a different experience in schools, academically, and socially. The other presents several questions as a result, including how are schools accommodating the education needs and learning styles of boys? Lastly, extracurricular time is discussed as a factor that influences boys and girls differently, which could impact college enrollment decisions and success. According to Mortenson (1999), in the first year of college, male students report spending most of their extracurricular time partying, watching tv, and exercising (p. 14). He goes on to state that female students tend to report spending most of their time reading, doing homework, and studying (p. 14). Mortenson (1999) makes the case that for each of these factors, male and female students are influenced completely differently, while at the same time experiencing a “one size fits all” environment at colleges and universities. Through this idea, it seems as though Mortenson (1999) would recommend different teaching and support strategies for male and female students.

These ideas suggest that while there is an attempt for equal access and opportunity for both genders, there is a need to address the underlying experience for men and women. According to Mortenson (1999), a male and female could have a parallel educational experience, however be influenced differently by these contributing factors, which could potential impact enrollment and success. While this lens approaches the experience of male and female students, it does so as a binary construct, further indicating a need to study the experience of students based on the gender spectrum. This theory indicates the need for further research in how each of these factors directly influences the higher education experience for students who identify as male and female.
Student Success Theories and Models

While Kimmel and Mortenson explore the cultural and experiential differences between women and men in college, other theories identify specific behaviors and traits demonstrated by successful students. Through the examination of these behaviors, with the understanding that male and female experiences in college are different, potential characteristics could be identified as key factors pertaining to the success of male students. If it is known that men experience higher education differently than women, theory about behaviors that contribute to success could shine light on support or programs that male students need in order to be successful in college.

At this point, it is important to recognize the lens, or perspective of this research. The perspective used allows this paper to describe who students are as human beings. Theory is heavily relied upon to provide this lens and point of reference in order to make observation and relate retention-predicating behavior to student experience. For this reason, several theories will be utilized to frame further discussion. Before moving forward, it could be assumed that the nature of this study or desired outcome could be based in anti-feminism. In fact, this research aims to gather a more broad perspective of gender issues in the higher education system. The examination of male student success in college holds potential to have a positive impact (Weaver-Hightower, 2003, p. 490). Research about men in college provides “the necessary complement to the research on girls, increasing our recognition that gender inequity is not a deficiency in girls but rather is caused by problematic masculinities and femininities” (Weaver-Hightower, 2003, p. 490). It is in no way directed towards looking for reparations for the accomplishments that female students have made in the past century.
Several theories have been developed to better explain the relationship between students and the decision to remain at an institution. Most notably, Tinto’s (1975) Student Integration Theory and Bean’s (1980, 1985) Student Attrition Model approach student retention from very different angles. While Tinto’s theory focuses on the student experience and how that relates to a student’s integration, Bean’s theory explores the internal components associated with persistence. The Student Attrition Model “proposes that students intentions to stay at their institution are shaped by their beliefs and attitudes (e.g. about the institution, friends, faculty), which result from their academic and social experiences with the institution” (p. 634).

Bean’s focus on internal factors such as attitudes and beliefs calls into question how individual intrinsic characteristics relate to a student’s ability to persist. Specifically, characteristics such as self-efficacy, competence, and motivation could be looked at. Theories such as Self-Determination Theory (Ryan and Deci, 2000) and the Social Cognitive Career Theory (Lent, Brown, and Hackett, 1994) describe how various components of personality and motivation contribute to performance and persistence. For instance, The Self Determination Theory (SDT) states that humans have a psychological drive to work towards achieving three innate psychological needs; competence, relatedness, and autonomy (p. 68). According to this theory, the more motivated an individual is, the stronger the performance. SDT breaks down motivation in relation to success further through six mini-theories. One of which, the Goal Contents Theory directly states that both intrinsic and extrinsic goals influence motivation and wellness. In relation to this study, one could understand this to mean that the achievement of a goal can be related to intrinsic or extrinsic motivation (Ryan and Deci, p.69).
Social Cognitive Career Theory (SCCT) takes this idea a step further, specifically looking at the performance and persistence of a student in relation to his or her drive to achieve. According to Lent, Brown and Hackett (1994), self-efficacy directly influences persistence (Kahn and Nauta, p. 635). This theory also links performance goals and outcome expectations to overall performance. While performance is mentioned as a part of this theory, it also attributes self-efficacy to persistence as well (Kahn and Nauta, p. 635). SCCT is primarily “concerned with predicting one’s motivation to engage in a behavior based on the expected outcome of the behavior” (Kahn and Nauta, p. 636). According to this theory, motivation is directly related to expected outcome of the individual.

According to the research of Kuh, Kinzie Buckley, Bridges, and Hayek (2006), the success of a student is related to various factors including precollege behavior, student behavior, institutional conditions, and student engagement (p. 9). These factors make up a guiding framework for analyzing literature about student success (see Figure 1). Rather than a direct route to college completion, this model depicts the journey as one with multiple turns, twists, and road blocks (p. 7). The work presented in this model exemplifies that the success or failure of a student relies on a holistic experience. Among the holistic experience, student behavior is a component that is broken down by this piece of research. This model identifies study habits, peer involvement, interaction with faculty, time on task, and motivation as student behaviors that contribute to student success. The intersection of these behaviors with institutional conditions, and precollege behavior impact student engagement and student success (p. 32).
Further Research

While these theories address majority populations, more recent research explore specific factors associated with male retention. In Weaver-Hightower’s (2010) article, it is suggested that diverse male perspectives must be represented when seeking answers to the issue of male enrollment and success. At institutions where there is less diversity of gender, men who do not fall into mainstream stereotypes may be isolated. Statistics that show fewer men on college campuses imply that there is less male diversity represented on college campuses (Weaver-Hightower, 2010). Other implications of the research suggest that because more women are on campuses, there is a requirement for more sports for women. Often, in order to create new sports for women involves eliminating certain male sports (Weaver-Hightower, 2010). Men who previously could have enrolled at those institutions to play a sport could potentially become less interested in attending.
**Current Campus Environments**

College campuses are reacting to the emerging enrollment trend for male students in various ways. National organizations such as NASPA (Student Affairs Administrators in Higher Education), have begun to create bodies of knowledge about male students. Currently, the NASPA Men and Masculinities Knowledge Community describes its mission as “to provide a venue for discussion, research, and the distribution of information about men’s gender identity development in the context of college campuses” (naspa.org). This knowledge community serves as a venue for discussion, conferences, and resources including descriptions of current practices to address the needs of male students on various campuses.

Considering common practice for addressing male retention issues, it is important to reiterate the diversity among institutions and the students that each serve. When looking at current programs, each is designed to fit the needs not only of the institution, but of the unique male population. Characteristics of the university such as size, location, general student population demographics, commuter/residential life ratio and others, impact how programs are developed and executed; therefore, must be taken into account in design and implementation.

York College, a part of the City University of New York, provides an example of a comprehensive and holistic program for male students. The Male Initiative Program at York states, "The purpose of the York Male Initiative Program and Men’s Center is to provide a system of support, through various resources, that contribute to the improvement of enrollment and graduation rates of under represented populations, and particularly male students" (York College / CUNY, n.d.). The official college website goes
on to explain that another main goal of the program is to provide support systems which encourage completion and graduation (York College / CUNY, n.d.). This program provides a variety of support services, which could appeal to various interests of the male student. The Male Initiative includes a mentorship program, lecture series, leadership programs, an academic fraternity, and an annual men’s conference. The mentorship program serves as an example of how men could serve to negate pluralistic ignorance. Through mentor relationships, male students could have the opportunity to learn that they are not the minority when it comes to masculinity and identity issues.

The Men’s Resource Center at Lakeland Community College demonstrates a different holistic approach in order to meet the needs of the student population at the institution. Founded in 1996, this center originally stated its goal to be to help men with life and work transitions (Lakeland Community College, n.d.). It has since evolved to include the retention of male students. Similar to York College, the Men’s Resource Center at Lakeland offers a variety of programs and services through their office. The goals are broad and encompassing of a variety of male issues. Relationship building, exploring the educational needs of male students, and bringing authors and speakers to campus to discuss issues important to men are listed on the website as goals of the center (Lakeland Community College, n.d.). Unlike York College, this program also lists the education of college personnel on the different learning styles of men, as a part of its goals (Lakeland Community College, n.d.). This program takes the holistic approach a step further in not only addressing the needs of the male student, but also educating the community and those who teach the male students, about how they can serve them better.
At the University of Arizona, male programs are approached through the already existing Women’s Resource Center (The Men’s Project, n.d.). The Men’s Project is described as a program that “engages college male culture to improve the experiences of University of Arizona students” (The Men’s Project, n.d.). Rather than a stand-alone office or program, The Men’s Project finds its home in an established office on campus. This is a unique take on men’s issues, in that by including this program, the Women’s Resource Center in turn takes on the role of a gender support center. The addition of The Men’s Project, from an outside perspective, makes the center more inclusive University of Arizona students. The program aims to provide educational outreach by conducting workshops, discussion groups, and providing campus events. Again, the idea of peer-to-peer or male-to-male relationship building is utilized through the internship program that is offered through this project.

These examples of current programs support the idea that there is not only one way to address male issues in the college and university setting. Each program described utilizes ideas such as pluralistic ignorance, and Guyland to reach the male population at the institution. One can see the unique characteristics of each institutions helps to shape the nature of each program and the services provided. By pulling together research and theory from various sources, each institution is able to develop a program that best fits the needs of the male population. Through comparison with other institutions and research, institutions have further resources to create new programs or improve current services.
Summary

This research indicates that male students are experiencing higher education differently than female students. If that is the case, and experience has a direct impact on retention, then this difference could effect retention rates of both genders. With this knowledge, further examination of certain behaviors could contribute to better understanding how successful male students navigate the higher education environment. Through the lens of SCCT, Bean’s Student Attrition Model, and Kuh’s Model of Student Engagement, students who demonstrate certain behaviors should experience more success, which could be demonstrated in the classroom or ultimately through graduation from the institution. If current statistics express that males are not as successful as female students in college (engagement, grade point average, retention), these theories could connect to provide insight into the relationship between student behavior and academic success. While the research does not identify one single factor that determines the success of male students, Bean’s Student Attrition Model, Kuh et. al’s Student Success Model, Lent et. al Social Cognitive Career Theory provide a lens in which to look at emerging differences between the male and female experience in higher education. Kimmel and Mortenson describe a case in which male students are exposed to a different environment and culture than what male students were originally exposed to at the time that co-education was introduced.

These ideas present the opportunity to examine if there is a difference between demonstrated behaviors among male and female students in higher education. Through the observation of specific components of student behavior, there is potential to identify explicit indicators of students more susceptible to failure to complete college. Exploration of these ideas holds the potential to bring together previous theory with current research
to address the gender gap for future students. This study examines the difference in success related behaviors in men and women in the first year of college.
Chapter Three:

Methodology

Research Questions

The objective of this study is to examine the relationship between success related behaviors and gender among first year students. The research question guiding this dissertation is: Do success related behaviors and gender significantly influence persistence in first-year students? It was hypothesized that gender and success related behaviors significantly influence persistence among first-year students.

Context of Study

The study was conducted at a private Catholic university in an urban setting. Around 3,800 students (including graduate) are currently enrolled in the institution. The retention rate from first to second year is around 80 percent. At the time of the study, male enrollment was 32 percent and female enrollment was 68 percent.

Pre-existing data from an online retention survey developed by MAP-Works, was utilized as the means of exploring the research question. Map-Works strictly adheres to the policy of not sharing data from other institutions, so data was only available directly from the institution and only one site was utilized for this research. Because of this policy and the reasonable sample size acquired, no other data was pursued for this study. A total of 606 students were surveyed (n=606) in 2012-2013 at the institution. The survey was distributed to all first-year students, and required as a part of the first-year course. Only one year of data was included in this study due to the change in survey questions from year to year. It would not be possible to include the same set of survey questions as variables if
multiple years of data were used.

The mandatory first-year course is a required one-hour a week class, taught by faculty and staff. As a part of each course, instructors cover various topics related to introducing the students to college topics, and the institution. Also as a part of the course, each instructor is paired with an upper-class student, who provides mentorship and support for the students in each class. Assignments for the course include attending university events, short writing reflections, and participation in class activities. In each class, the students receive points toward his or her grade for completing this survey. It is a mandatory assignment.

**Research Instrument**

MAP-Works was adopted by the institution in 2012 to assist in retention-focused efforts. The software tool is “a research-based comprehensive, student retention and success system created through a partnership between EBI MAP-Works and Ball State University” (MAP-Works, 2014, p. 3). Through analytics identified as predicative indicators, the software alerts administrators to students who could be at risk for leaving the institution. The predicative indicators are based on over 20 years of research at Ball State University (MAP-Works, 2014, p. 3). MAP-Works incorporates various theoretical frameworks into its foundation, specifically Chickering’s seven vectors of student development, Tinto’s Theory of Attrition (1993), and Bandura’s Theory of Self-Efficacy (1997). According to The Foundation of MAP-Works, “MAP-Works includes items about self perception of skills, initial social relationships, and educational goals. Feedback to students emphasizes personal responsibility and development, and building connections for long-term success” (2014, p. 6).
Survey Design

The web-based survey asks students questions in numerical order. Perception questions require students to respond on a scale of 1 to 7. Typically, “1” indicates, “very dissatisfied or not at all, while “7” represents very satisfied or extremely” (MAP-Works, 2014, p. 8). This study identified multiple questions in the survey that related specifically to academic motivation, self-discipline, peer interaction, and faculty interaction. In the 2012-2013 survey, the questions were numbered Q044, Q046, Q047, Q048, Q049, Q050, Q054, Q060, D109, D129, Q143, and Q144 (see Table 2).

The survey includes 172 items with pre-populated demographic data on each student. Students were asked to take the survey one month after classes had started. The survey tool allows for advisors and administration to explore the data in hopes of identifying students who may be at risk for leaving the institution. The instrument tracks students who persist into the second semester, with the option of administering another survey. For purposes of this study, data from the first survey and demographic information about each participant were the only parts of the tool that were utilized.

Secondary data was acquired for this study. The data included first-year students’ responses to MAP-Works assessment from the 2012-2013. The application of secondary data allows for research to be conducted on this research topic through already collected information in a viable manner. MAP-Works data was made available through the Academic Resource Center, the office that conducts the survey. Demographic and student persistence data was made available through the Institutional Research Office. Student identification numbers were initially used to match MAP-Works responses to data provided by the Institutional Research Office. After student identification numbers were
used to match data, the numbers were eliminated.

**Design Description**

In order to test the hypothesis of this study, several analytic approaches were utilized. Initially, descriptive analysis was utilized to examine the data. The sample size for the study was 606 participants (n=606), 194 participants identified as male (32%), and 412 participants identified as female (68%). Through this approach, trends and outliers in the data could be identified and examined. Secondly, a binary logistic regression was conducted. This study utilized correlational research. For this analysis, gender and responses to questions about success related behaviors were compared to the student's persistence from the fall of 2012 to the fall semester of 2013. The independent variables of this study is gender and scores to questions Q044, Q046, Q047, Q048, Q049, Q050, Q054, Q060, D109, D129, Q143, and Q144. The dependent variable is persistence to the beginning of the 2013 academic year.

**Data Collection**

Secondary data was used to examine the research questions. Relying on existing data still maintains the overall goal of other data collection methods, in that it aims to “contribute to scientific knowledge through offering an alternative perspective” (Johnson, p. 625). To investigate the research questions the results from the MAP-Works survey were utilized, which included 606 first-year students who took the survey during two academic years. Of the participants, 61 percent identified as female, slightly less than the percentage of the overall student body. The survey took approximately twenty minutes to complete. Participants took the survey on their own time or in class, on a computer. Because this
study utilized the data after it was collected, it was submitted to the Institutional Review Board for exemption, which was granted. Therefore, the participants did not have to sign a consent form.

Access to the data was obtained through the Academic Resource Center at the university, where the coordination of the survey occurred. Through a partnership with the staff, data was delivered electronically from MAP-Works directly. Additional demographic data, including gender were requested through the Institutional Research Office. These data were then matched by student and appended to MAP-WORKS data.

According to this measurement tool, motivation is a component of self-efficacy. Self-Efficacy is identified as a factor that influences a “student’s commitment to the institution and educational goals” (MAP-Works, 2014, p. 7). Similar to Lent, Brown, Hackett (1994), MAP-Works identifies self-efficacy as directly related to student persistence. According to MAP-Works, “Self-efficacy has been linked to a person’s choice of situations, behaviors, effort levels, persistence and resiliency, thought patterns, stress levels and outcomes.

Academic self-efficacy has been linked to academic performance” (MAP-Works, 2014, p. 7).

Data could not be traced to any student because after demographic information was matched to survey response, identifiers (id numbers) were eliminated from the report. According to the data report, 606 first-year students were surveyed in the 2012-2013 academic year. When the MAP-Works survey was conducted, the survey question wording remained the same and in the same order of questions (see Table 2). The survey was administered online, through a link provided by an official campus email. Completion of the survey took approximately 20 minutes for the participants.
Statistical Analysis

To determine if there is significant influence, beyond what could be expected by chance, between the behaviors associated with success in the first year between first-year males and females, a binary logistical regression was used to examine the research question. This analysis will evaluate the relationships between success related behaviors and gender influencing persistence to the next academic year. The following model was used.

\[
\log(\hat{Y}) = \beta_0 + \beta_1 c_1 + \beta_2 c_2 + \ldots + \beta_{13} c_{13}
\]

**Variables in the equation**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>$\beta_0$</td>
</tr>
<tr>
<td>Gender</td>
<td>$\beta_1$</td>
</tr>
<tr>
<td>Q044</td>
<td>$\beta_2$</td>
</tr>
<tr>
<td>Q046</td>
<td>$\beta_3$</td>
</tr>
<tr>
<td>Q047</td>
<td>$\beta_4$</td>
</tr>
<tr>
<td>Q048</td>
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<tr>
<td>Q049</td>
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<tr>
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<td>$\beta_7$</td>
</tr>
<tr>
<td>Q053</td>
<td>$\beta_8$</td>
</tr>
<tr>
<td>Q054</td>
<td>$\beta_9$</td>
</tr>
<tr>
<td>Q060</td>
<td>$\beta_{10}$</td>
</tr>
<tr>
<td>D109</td>
<td>$\beta_{11}$</td>
</tr>
<tr>
<td>D129</td>
<td>$\beta_{12}$</td>
</tr>
<tr>
<td>Q143</td>
<td>$\beta_{13}$</td>
</tr>
<tr>
<td>Q144</td>
<td>$\beta_{14}$</td>
</tr>
</tbody>
</table>

*Table 1.*
### Survey Questions

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Question</th>
<th>Measurement Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q044</td>
<td>To what degree are you the kind of person who: Attends class?</td>
<td>1-7</td>
</tr>
<tr>
<td>Q046</td>
<td>To what degree are you the kind of person who: Turns in required homework assignments?</td>
<td>1-7</td>
</tr>
<tr>
<td>Q047</td>
<td>To what degree are you the kind of person who: Spends sufficient study time to earn good grades?</td>
<td>1-7</td>
</tr>
<tr>
<td>Q048</td>
<td>To what degree are you the kind of person who: Participates in class?</td>
<td>1-7</td>
</tr>
<tr>
<td>Q049</td>
<td>To what degree are you the kind of person who: Communicates with instructors outside of class?</td>
<td>1-7</td>
</tr>
<tr>
<td>Q050</td>
<td>To what degree are you the kind of person who: Works on large projects well in advance of the due date?</td>
<td>1-7</td>
</tr>
<tr>
<td>Q054</td>
<td>To what degree are you the kind of person who: Reads the assigned readings within a day before class?</td>
<td>1-7</td>
</tr>
<tr>
<td>Q060</td>
<td>To what degree are you experiencing stress regarding: Motivating yourself to get your work done on time?</td>
<td>1-7</td>
</tr>
<tr>
<td>D109</td>
<td>To what degree have you interacted with career services at this institution?</td>
<td>1-7</td>
</tr>
<tr>
<td>D129</td>
<td>Overall, to what degree are you: Keeping current with your academic work?</td>
<td>1-7</td>
</tr>
<tr>
<td>Q143</td>
<td>Overall, to what degree are you motivated to complete your academic work?</td>
<td>1-7</td>
</tr>
<tr>
<td>Q144</td>
<td></td>
<td>1-7</td>
</tr>
</tbody>
</table>

### Threats to Validity

A threat to internal validity was recognized by this study that could weaken the ability to draw generalizing conclusions based on the results. Primarily, any self-reported measure is subject to bias. The students provided a score for each question, based on their perception of the question as well as interpretation of where their behavior falls on the likert scale. Additionally, testing is a threat to internal validity. Participants took the survey as a requirement for a course and knew that the results were being monitored.
could have potentially influenced their responses. If the participants presumed that how he or she answered the questions could affect interactions with faculty and administration, responses could differ. This threat was minimized through communication from the Academic Resource Center that answers to the survey would have no impact on grades in the course.

Additionally, it should be noted that the study was conducted at the institution of employment of the researcher. While every attempt for objectivity was made, personal experience could potentially impact the researcher’s role. Impact could include but was not limited to perceptions, expectations, or analysis of results. This threat to validity was minimized through peer review of research, as well as continuous communication with the dissertation committee, monitoring the researchers objectivity with this study.

Summary

The statistical analysis of the relationship success related behaviors, gender and persistence will result in an increase in understanding of the factors affecting retention. Further, the results will inform the value of measuring first-year students. Beyond knowledge base, the results of this study will help to inform survey development and distribution with first-year students, and how the results could potentially enlighten current retention and persistence practice.
Chapter 4:

Results

Introduction

Through the examination of literature, theory and current practices, the research question for this study was developed. Research about factors that influence the first year of college provides a lens through which to look at the current state of male enrollment in higher education. Theory (SCCT, Student Attrition Model) suggests that student behaviors are directly related to success. Fewer males are enrolling in college in the United States. With this information, the research question for this study was developed. The research questions is:

Do gender and success related behaviors significantly influence persistence among first-year students?

The objective of this study is to shed light on the different experiences of male and female students in higher education. Currently, there is lower male enrollment in higher education, and literature and research describe that once they arrive to college, they are having a unique experience compared to female students. Identifying factors that contribute to a different experience for those students while they are in college, could indicate areas of programming or services that could support the persistence and retention of male students.

It was hypothesized that gender and success related behaviors significantly influence persistence into the second year of college. Secondary data was utilized for this study,
through collaboration with the office of Institutional Research at the institution where the study took place.

**Test and Data Collection Methods**

Data from the MAP-Works survey and participant demographics were provided through the office of Institutional Research. A MAP-WORKS report from the 2012-2013 academic year was utilized as the master source of data. In order to test the hypothesis that gender and success related behaviors significantly influence persistence into the second year of college, a binary logistical regression was planned. Of those who participated in the study, 20% were student athletes, 32% were first-generation (neither parent graduated from a four year institution) students, and 61% were female.

**Data Analysis**

The focus on this study remains centered on the relationship between gender, student behaviors and persistence. A logistic regression analysis was conducted to predict persistence for 606 students using gender and multiple responses to questions identifying success related behavior as predictors. Data was missing for 118 cases, and those participants were extracted from the study. A test of the full model against a constant only model was statistically significant, indicating that the predictors, as a set, reliably distinguished between students who persisted to their second year of college (chi square = 27.368, p <.05 with df = 14). Although the model was statistically significant, the effect size was small (Nagelkerke’s R = .097)
Nagelkerke’s R of .097 indicated a weak relationship between prediction of retention, success related behaviors and gender. Prediction success overall was 85.7% (0% for not persisting and 100% for persisting to the second year). The model was more accurate in predicting persistence of students. It was unable to identify students who did not persist. The Wald criterion demonstrated that responses to question Q044 (p < .005), Q054 (p < .05) and Q109 (p < .05) made a significant contribution to prediction. Gender and the remainder of the questions were not significant predictors.

Following completion of the model analysis, a principal components analysis of the factors, using varimax rotations, was completed to examine grouping among the MAP-WORKS predictors. This form of analysis was conducted to determine how many dimensions of the variables could explain the variance of the model (Stevens, 1992).
Principal components analysis also allowed for the number of criterion variables to be reduced, therefore increasing the power and robustness of the study (Stevens, 1992). A varimax rotation provided the best defined factor structure. The results of the varimax rotation matrix is presented in Table 5. The four factors identified by the varimax rotation were further defined based on category of behaviors as motivation, proactive, required action, and exploratory. The categories addressed the range of behaviors, starting with exploratory behavior. Students who demonstrated exploratory behavior show signs of curiosity and information gathering about how to be more academically successful. Students who reported required action, demonstrated that they achieved the required tasks identified by the instructor or faculty member in order to gain credit or achieve a certain grade. Behavior identified as "motivation" was defined based on the report that a student went beyond requirements set forth by the instructor to identify actions that could be taken to be successful in the course. Those students who reported that they went beyond exploration of what would make them academically successful in one particular class and took initiative to either meet or identify resources that would help achieve graduation or career goals were identified having the "proactive" category of behavior. The factor defined as "proactive," explained 19.93% of the variance.

<table>
<thead>
<tr>
<th>Persistence to Fall 2013</th>
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</thead>
<tbody>
<tr>
<td>Persisted</td>
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<tr>
<td>Did Not Persist</td>
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</tbody>
</table>

*Table 4.*
Table 5.

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<tr>
<th>Component</th>
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<th>Rotation Sumns of Squared</th>
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<td></td>
<td>Total</td>
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<td>Cumulative %</td>
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<td>8</td>
<td>0.58</td>
<td>4.43</td>
<td>87.75</td>
</tr>
<tr>
<td>9</td>
<td>0.52</td>
<td>4.02</td>
<td>91.76</td>
</tr>
<tr>
<td>10</td>
<td>0.44</td>
<td>3.36</td>
<td>95.11</td>
</tr>
<tr>
<td>11</td>
<td>0.37</td>
<td>2.86</td>
<td>97.97</td>
</tr>
<tr>
<td>12</td>
<td>0.26</td>
<td>1.96</td>
<td>99.93</td>
</tr>
<tr>
<td>13</td>
<td>0.01</td>
<td>0.07</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Table 6.
A final model was examined through a logistical regression utilizing the extracted factors and gender as the predictor with a reduced sample.

\[ \mu = \beta_0 + \beta_1 \chi_1 + \beta_2 \chi_2 + \beta_3 \chi_3 + \beta_4 \chi_4 \]

**Variables in the equation**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Parameter</th>
<th>Estimate</th>
<th>S.E.</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>( \beta_1 )</td>
<td>0.29</td>
<td>1.23</td>
<td>0.81</td>
</tr>
<tr>
<td>Proactive</td>
<td>( \beta_2 )</td>
<td>0.50</td>
<td>0.23</td>
<td>0.02</td>
</tr>
<tr>
<td>Required Behavior</td>
<td>( \beta_3 )</td>
<td>0.10</td>
<td>0.17</td>
<td>0.56</td>
</tr>
<tr>
<td>Exploratory</td>
<td>( \beta_4 )</td>
<td>0.42</td>
<td>0.31</td>
<td>0.18</td>
</tr>
</tbody>
</table>

*Table 8.*
The sample was reduced to n=140 to account for unbalanced composition of original sample and was comprised of a random sample of n=70 (persist) and n=70 (non-persist). A test of the full model against a constant only model was statistically significant, indicating that the four components identified through the principal component analysis reliably distinguished between students who persisted to the their second year of college (chi square= 9.588, p <.05 with df = 4). However, effect size was very small in this model also (Nagelkerke’s R =.086).

Nagelkerke’s R of .086 indicated a weak relationship between prediction and grouping. Prediction success overall was 59% (49.3% for not persisting and 68% for persisting to the second year). While overall success was lower, prediction for not persisting was much better. The Wald criterion demonstrated that the second factor made a significant contribution to prediction. The gender and the remaining three factors were not significant predictors.

Summary and Conclusion

According to these results, the study indicates that the model including all questions and gender is significant. Upon further examination with the reduced data, the model remains significant, however in all instances, the effect size is small. The study also indicates that the second factor identified through the principal component analysis has significant influence on persistence into the second year of college. The null hypothesis of this study were rejected because gender and success related behaviors were found to significantly influence persistence into the second year of college. While significance was found, the
effect size was weak, and it should be noted that as a factor by itself, gender was not found to have significant influence in the model.
Chapter 5:

Conclusion

Summary

Through the lens of Student Success Theories and gender research, this study aims to examine the relationship between success related behavior and gender among first year students. The National Center for Educational Statistics reported that in 2010, 57 percent of undergraduate students were female (Weaver-Hightower, 2010). The same report stated that the percentage was projected to grow to 59 percent by 2018 (Weaver-Hightower, 2010). As 2018 draws near, it will be interesting to discover if that prediction was accurate.

Mortenson and Kimmel’s theories about male experiences in college attempt to explain the dichotomy between a male and female student experience in college, and the impact on outcomes. Similarly, Kuh’s Model of Student Success explains how the behaviors of students in college impact their success. Utilizing these theories as lenses to look at student success, this research explores how the interaction of gender and certain behaviors could influence persistence into the second year. The purpose of the study was to better understand the impact of gender and behaviors of first-year students on persistence. The main research question of this study is: Does gender and success related behaviors significantly influence persistence of first-year students? It is important to note that in no way does this research aim to make repercussions for the advancement that has been made in female enrollment or degree attainment. However, it does encourage inquiry into the how and why genders experience higher education differently, and do those experiences impact student success.
It was hypothesized that gender and success related behaviors do significantly influence persistence into the second year of college. The decision to accept or reject the null hypothesis of no influence on persistence was based on the statistical analysis of the survey data. Secondary data was utilized, which looked at survey data from 606 first-year students at a small liberal arts college. The survey was administered as a part of a first-year experience course, required for all students to take. The survey took approximately twenty minutes to take. This secondary data was acquired through the Student Success Center at the institution.

From the students who were surveyed, 118 cases were extracted when it was found that there was missing data from those participants. The data analysis demonstrated model significance, with weak effect size. This outcome supports the decision to reject the null hypothesis as it indicates that gender and success related behaviors significantly influence persistence. The weak effect size indicates that while the model is significant, it cannot be looked at to predict persistence for a large number of participants. The results indicate the connection between variables, and need for further study about what else influences the persistence of students.

**Conclusion and Recommendations**

The ultimate finding of this study indicates that the model that includes gender and success related behaviors significantly predict persistence. While the effect size is weak, the connection between the factors remains. This connection exemplifies that a combination of various factors influence persistence and retention. Retention alert tools such as MAP-WORKS base their practice and business on this idea. These findings, while significant, demonstrate the complication of predicting and retention. These tools highlight
that each student is a unique individual. College success is not predetermined by one set of factors, otherwise retention at higher education institutions would be much less of a problem or concern.

These findings do not suggest that interventions or retention focused programming should be abandoned, rather they should be informed by the influence that multi-dimensions of each individual students could have an effect on his or her performance. Gender, experience and behaviors could potentially influence the persistence and retention of each individual student. Specifically, with male students, this means that gender stereotypes should be avoided when attempting to connect with or program for these students. In other words, a football team and a video game club will not solve all or every male retention issues at an institution.

As these results emphasize the uniqueness of the individual, specifically male students, recommendations for retention practices emerge. If one takes into account that each male student is unique, and various factors influence persistence, multi-dimensional approaches hold the most potential to influence a large male populations. The practices previously discussed, including mentorship experiences and male programming could cast a wide net where students with various interests and background could find a connection that they need in order to help their success at the institution. The results of the study also lead to the recommendation for the utilization of retention tools and/or surveys such as MAP-WORKS. Although the results of these tools are not direct predictors of retention with 100% accuracy, they have the ability to identify students who may be at risk for leaving the institution. Much like the literature and theories previously discussed, tools such as MAP-WORKS utilize the intersection of multiple factors and variables that contribute to the
student experience. Exemplified by the large number of survey items, approaches that consider multiple factors address retention issues through a holistic lens, recognizing that each student is a unique individual. The identification of various student behaviors by the survey allows for the opportunity for individual interventions and conversations with the student.

**Implications for Future Study**

This dissertation supports further study and exploration into phenomenon associated with the retention of male students. The results contribute to a growing body of knowledge about gender, success related behaviors, and experience in higher education. Research that inquiries into the unique experiences of male students could shine light on how those experiences influence success and persistence. This exploration could be unique to only male students, or include comparison to female students.

The data that was utilized for this study was acquired from one small, liberal-arts college. Further study into this topic should include data from multiple types and sizes of institutions. A larger sample size with a more diverse data set could implicate different results to this research question.

Data about these topics could also be collected through different means, in order to gain a better understanding of the interaction between gender, success related behaviors and persistence. An example of this would be a pre and post survey with students before entering college, a second year survey, and exit survey with students who chose to leave an institution.

The findings of this research, support Kuh’s theory, that multiple components and behaviors impact student success. By integrating gender into the model, the impact of
those behaviors remain. With these findings and the theories of others, the need for further research about gender and retention is evident. Ultimately, these ideas support treating students as individuals, and recognizing that gender can play a role in the success and persistence of first-year students. The findings lend themselves to informing the practice of higher education professionals with the pursuit to positively influence the retention rates of all students. Specifically, professionals could utilize the findings that proactive behavior has a significant impact on retention, and apply this knowledge to intervention techniques and programs. Further, practitioners can utilize these findings as support to approach each student as a unique individual when addressing retention issues. This idea could allow for creative and innovative new approaches to retention programs at higher education institutions.

Higher education institutions can use this research to address retention issues facing their students, and inform retention practices that are put into place. As students, research and institutions evolve, the ultimate goal remains to support students in their pursuit towards a degree. Through the lens of continued research, tools and ideas about how to do so will become more evident.
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