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Investigating the Possible Relationship Between Participation in High School Athletics and First-Generation College Student Persistence to College Graduation

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by

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A Dissertation submitted to the Education Faculty of Lindenwood University

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This dissertation has been approved in partial fulfillment of the requirements for the degree of

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at Lindenwood University by the School of Education

Dr. Stephen Sherblom, Dissertation Chair	4-7-17 Date
Dr. Christie Rodgers, Committee Member	4-7-17 Date
Dr. Annie Alameda, Committee Member	4-7-17 Date

Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

Full Legal Name: Connie Jo Lindemann-Litzsinger

Signature: Connie Litzsinger Date: 4/7/17

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I can do all things through Christ who strengthens me.

Philippians 4:13

Abstract

The purpose of this mixed-methods study was to investigate ways in which participation in high school varsity athletics impacted academic success of first-generation college students. Through an anonymous online survey, this study compared quantitative demographic data of first-generation college students who participated in high school varsity athletics to those who did not. In addition, the qualitative research in this study explored first-generation college student perceptions of why they have been successful during college. Athletic focus group participants were asked questions related to college transition, what they gained through athletics, and long-term academic benefits of their participation in high school athletics.

Prior research correlated the relationship between participation in high school athletics and improved school attendance, grades, ACT scores, and graduation rates (Lumpkin & Favor, 2012) while the athletes were enrolled in high school. However, few studies have explored the long-term academic benefits in terms of college persistence and bachelor's degree completion. With consideration of the academic benefits, this study pinpointed characteristics, academic behaviors, and life skills enhanced through participation in high school varsity athletics that contributed to positive college outcomes for these first-generation college students.

Two first-generation cohorts were utilized in the study: (a) college students who graduated from high school in 2015 and returned for their second year of college at Suburban Private University during the fall of 2016 and (b) college seniors who graduated from high school since 2011 and applied for graduation during the 2016-2017 school year. The findings indicated that first-generation college students, who were high

school varsity athletes have a statistically significant higher high school grade point averages and college grade point averages after two semesters, compared to college athletes and nonathletes. Also, former high-school-only athletes graduated from college in fewer semesters than either of the other two groups. Most notably, based on the sample utilized in this study, there was statistically significant evidence that there are more first-generation college graduates that were former high school athletes than first-generation graduates who were not high school varsity athletes.

The results of this mixed-methods study indicated a possible relationship between participation in varsity high school athletics and successful first-generation college transition to college and persistence to graduation. As the study participants expressed, their participation in varsity level athletics assisted them to be academically prepared for college when they first arrived and were self-confident that with hard work they would one-day become first-generation college graduates. This researcher believes more future first-generation college students should participate in school-sponsored athletics alongside their teammates for all four years of high school, not necessarily with the motivation of more playing time in high school or to secure an athletic college scholarship, but to enhance the personal characteristics, academic focus, and resiliency that could help them graduate from college.

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Chapter One: Introduction

The purpose of this study was to investigate ways in which participation in high school varsity athletics may impact academic success of first-generation college students. Prior research has examined and correlated the relationship between participation in high school athletics and educational outcomes while the athletes were enrolled in high school. However, few studies have explored the long-term academic benefits of participation in high school athletics as it relates to college persistence and degree completion. Lipscomb (2007) reported that students who participate on high-school-sponsored athletic teams typically increase their concentration on high school academic achievement. Additionally, athletic involvement typically produces a higher level of self-esteem, greater self-monitoring, and the development of a realistic internal locus of control (Swanson, Kowalski, Gettman, & Lee, 2012). Participation in high school athletics has also been linked to improved school attendance, less discipline issues, and better social relationships. With consideration of those benefits, this study was designed to investigate the personal characteristics and behaviors enhanced through participation in high school varsity athletics which contribute to positive college outcomes, such as persistence to college graduation of first-generation college students. College Board uses six years as the benchmark to complete a bachelor's degree for full-time, first-time college students (College Board, 2010). In addition the National Center for Education Statistics (NCES), Executive Summary reported that only an estimated 60% of students attending four-year institutions will graduate in six years or less (NCES, 2015, p. 144).

For this study, a first-generation college student was defined as a college student whose mother and father never attended college, with high school as the highest level of

education attained (Nunez & Cuccaro-Alamin, 1998). The study compared self-reported demographic data of first-generation college students who participated in high school varsity athletics to those who did not. The study also explored perceptions of the life skills they believe were enhanced through athletics that transferred to their positive academic trajectories aimed at college graduation. Murphy and Hicks (2006) identified first-generation students as less academically prepared and "at-risk of being academically, socially and economically left behind non-first-generation students, even when their motivation and academic credentials are equal" (p. 3). This study examined academic differences between first-generation college students who participated in high school varsity athletics and first-generation students who did not participate in high school sports.

The National Center for Education Statistics (NCES) is the primary federal entity to collect, analyze, and report data related to education in the United States. Part of the rationale for this study was based on a NCES report (2015) that indicated less than 25% of first-generation college students earn a bachelor's degree within six years of high school graduation, compared to 68% of their non-first-generation counterparts (as cited in Opidee, 2015, para. 1).. As a first-generation college graduate and veteran high school college counselor, this researcher found that statistic staggering and unacceptable. It was also reported in *University Business Magazine* (Opidee, 2015) that 30% of students currently enrolled in college are the first in their family to attend college, while 24% (4.5 million) college students are both first-generation and low-income (p. 1). Additionally, NCES reported only 11% of low-income, first-generation college students graduate with a bachelor's degree within six years (as cited in Opidee, 2015, para. 2). This study was

designed to inspect the long-term academic value of participation in high school varsity athletics for first-generation college students.

Background of the Study

Educational research has indicated that first-generation college students do not persist to graduation at the same rate as students who are not first generation (Ishitani, 2006; Murphy & Hicks, 2006). Most current research literature about first-generation college students has focused on academic preparedness, intervention strategies, and barriers to completion of a bachelor's degree. However, after reading several articles on this topic and analyzing first-generation college student statistics, this researcher became increasingly interested to learn more about the small percentage of first-generation students, like myself, who successfully persist to college graduation. The empirical question of this research study became, what can future first-generation college students do in high school beyond academic preparation to improve their likelihood to earn a bachelor's degree directly after high school?

It is common for first-generation college students to enroll at a college directly after high school, but most are not fully prepared for the experience or confident about their chance to earn a college degree. The first year of college is widely recognized as a crucial point for all students (Tinto, 1993) but the transition to college can be particularly difficult for at-risk populations. First-generation college students are typically not ready for the academic rigor, the financial aspects, or the social challenges of college life. First-generation college students often feel emotionally overwhelmed and out of place at a postsecondary institution because they are the first one in their immediate family to attend college (Wong, 2016). Conversely, their non-first-generation peers seem more

relaxed because they are following their parents' post-secondary educational path. As this researcher started to explore this topic, she asked a few of her first-generation friends and colleagues why they thought they earned a college degree, while many college peers dropped out. After a series of casual conversations, the researcher noticed a very strong commonality. The first-generation friends and colleagues were all high school varsity athletes or were deeply involved in other high school extra-curricular activities centered around the interests they enjoyed in high school and continue to be passionate about, even decades later.

For the researcher, participation in high school athletics changed the direction of her life. As her athletic identity thrived during high school, so did her academic achievement, level of self-confidence, and goal orientation. Had she not learned important life lessons from her coaches alongside her teammates, she believes she would not have been as prepared to enter the unknown world of college. As a naïve first-generation college student in the 1980s, four hours away from her childhood home, she possessed a strong set of characteristics and interpersonal skills developed mostly through participation in high school athletics. She was accustomed to personal challenges, utilized a strong work ethic, and learned the value of mutual respect for all people. This study explored ways in which participation in high school varsity athletics influences long-term academic outcomes of first-generation college students, despite unfavorable odds. The framework of this study was not to suggest participation in high school athletics produces first-generation college graduates, but rather to investigate the possible influence varsity athletic participation has on first-generation students who persist toward college graduation within six years after high school.

The positive impact of extracurricular activities has been exhaustively researched. For example, Shulruf (2011) conducted a meta-analysis of 136 studies involving extracurricular activities including high school athletics. His meta-analysis challenged the assumption that student participation in extracurricular activities supports positive educational outcomes and aimed to ask the question, can a positive academic causal effect be proven? In sum, Shulruf's study could not confirm direct causal effects and left the theoretical question, what exactly is it about participation in extracurricular activities that can be linked to mostly positive educational outcomes? Therefore, this research study started where Shulruf's research stopped, to explore the ways in which participation in high school varsity athletics may encourage first-generation college student academic success.

Participation in high school athletics are encouraged in many communities in the country; however, the academic value of participation is rarely mentioned. The National Federation of State High School Associations (NFHS) reported for the 2015-2016 school year over 7.8 million high school students participated in interscholastic athletics in the United States (NFHS, 2016b, p. 54). Additionally, the 2016 NFHS, Athletics Participation Summary reported 171,937 high school student-athletes in Missouri in nearly 600 high schools are involved in school-sponsored athletics (NFHS, 2016b, p. 55). NFHS also estimated that 55.5% of all high school students play at least one sport at some point during ninth-12th grade, but only a small percentage continue to participate during all four years of high school (Kelly & Carchia, 2013, p. 7).

Educational leaders have been able to utilize athletic participation in this country to enforce academic standards for high school student-athletes as well as at the collegiate

level. Bukowski (2010) found that 48 out of the 50 states have specific high school academic eligibility requirements that encourage and enforce a strong message of academic importance to student-athletes across the country. High school requirements may include enrollment in a minimum number of courses, an exact number of credits that must be earned, and a minimum grade point average that must be kept, and often include a school attendance and citizenship policy. For example, it is stated in the *Missouri State High School Activities Association* (MSHSAA) *Official Handbook* (2016a) that to ensure academic eligibility to participate in school-sponsored activities and athletics, Missouri "students must successfully complete at least three credits the semester prior to their competitive season" (p. 42). Therefore, student-athletes who remain eligible to participate in high school athletics all four years and advance to the varsity level, are better suited to attend college successfully, then are their peers who quit sports due to poor grades. After a comprehensive study of intercollegiate athletes, Pascarella and Smart (1991) reported athletes possess more self-esteem, better interpersonal and leadership skills and were significantly more likely than were nonathletes to complete their bachelor's degree.

Statement of the Problems

The Official Blog of the U.S. Department of Education (2015) reported that nationally, only 18% of all ninth graders complete a four-year degree within 10 years (para 1). . The most critical problem this study addressed was how first-generation college students lag their non-first-generation counterparts in many ways during high school and beyond. As evidence of this, less than 25% of first-generation college students earn a bachelor's degree within six years of high school graduation, compared to

68% of their non-first-generation counterparts (Opidee, 2015, para. 1). To solve this discrepancy, high school educators must identify and solve the problematic issues causing this overwhelming gap between the two cohorts. High school administrators must improve the academic foundation of all students, especially the first-generation college-bound students. One way to tackle this issue is for educators to evaluate the most academically beneficial programs already established in the high school culture and encourage more students to participate. For example, student participation in school-sponsored extracurricular activities have been proven to enhance student engagement as well as academic achievement. Specifically, the literature indicates participation in high school athletics have been linked to improved school attendance, grades, and self-esteem. With consideration of those academic benefits during high school, this study aimed to investigate the ways in which participation in high school varsity athletics may influence academic success of first-generation college students as they pursue a college degree.

The second problem this study intended to focus on was the underrepresented academic value placed on school-sponsored athletics. For example, whenever school districts across the country are forced to make substantial budget cuts, these cuts leave the athletic programs vulnerable to elimination, which discredits the genuine academic value of school-sponsored athletics. Even though a very small percentage of a school district's overall operating budget pays for extracurricular activities, the risk of elimination remains prominent in almost every budget reduction. *ESPN magazine* reported that the percentage of high schools that have cut their athletic programs jumped from 8.2% during the 1990-2000 school year to 15.1% in 2009-2010 (Kelly & Carchia, 2013, p. 39). To help end the danger of elimination, a more accurate academic value of

school-sponsored athletics needs to be emphasized. Continuing with the benefit of participation in athletics, the research literature has also indicated that high school student-athletes learn self-discipline, acceptance of others, respect of authority, leadership skills, responsibility, and personal accountability. Kennedy (2008) stated that, at a cost of only 1-3% of a school's overall budget, extracurricular programs are one of the best bargains in education (p. 39). Student-athletes benefit from involvement with a positive peer group because school sports are a safe platform to practice adolescent life skills such as teamwork, exposure to diversity, and the importance of time management. Additionally, athletes must learn to communicate effectively during the stress of competition, learn to respect officials and opponents, and obey the rules of the game. Most importantly, student-athletes must meet academic requirements, maintain good school citizenship, and have good school attendance to remain eligible to participate. Addressing the danger of the elimination of more school-based athletic programs in the country, will require a substantial paradigm shift in the importance of the academic benefits of interscholastic sports. Therefore, win-loss records and the nominal cost to support athletic teams should be deemphasized, while the academic and social value of participation in high school athletic programs should be promoted.

Another comprehensive problem this study addressed was that oftentimes high school athletes, especially males, have unrealistic expectations regarding their athletic identity and discount the importance of their education. Some high school athletes (and parents) are under the false assumption that athletic talent alone will secure a spot for them at a college in the form of an athletic scholarship, and discounting the importance of the academic credentials to excel in college. The reality is, the odds of winning a

National Collegiate Athletic Association (NCAA) sports scholarship are miniscule; only about 2% of high school athletes are annually awarded NCAA athletic scholarships (O'Shaughnessy, 2013, para. 2). Based on my professional experience as a high school counselor and coach, there are even wider disconnects among first-generation college-bound high school students, because many do not link their academic status in high school to their ability to earn a college degree later. It is not uncommon for high school athletes to dream of participation on a college or professional athletic team, which might be an added motivation to attend high school. However, the problem is that some elect to spend more time on their athletic skill development than mastering their college preparatory courses.

Obviously, some high school athletes advance to the next level and play at the collegiate or professional level, but it should be publicized more that college athletes must be academically eligible to do so. The NCAA reported that of the nearly eight million high school athletes in the country, only 460,000 compete as NCAA college athletes, and of those, only 150,000 receive a share of the $2.7 million each year in athletic scholarships (NCAA, 2016, para. 3). Consequently, college scholarships are very competitive, and academic achievement is a huge part of the equation as to who earns athletic scholarships at NCAA and National Association of Intercollegiate Athletics (NAIA) colleges. College coaches typically only award athletic scholarships to those high school athletes they believe will transition into college successfully, both on the playing field and in the classroom. To align high school athletes', focus appropriately, there needs to be more conversation about the academic aspects of realistically moving on to the next level of competition. It is important for all high school athletes, especially

first-generation college-bound students (and their parents) to understand the depth of freshman college admission requirements as well as the NCAA/NAIA eligibility standards required to play at the collegiate level.

The *MSHSAA Official Handbook* stated the aim of high school athletics was to prepare adolescents for life as an extension of the classroom, not to earn an athletic scholarship. Oftentimes high school athletes and sometimes their parents, especially parents without college experience, have unrealistic expectations of earning an athletic college scholarship, which contributes to the lack of academic focus of the most talented athletes. However, of the high school athletes in the nation during in the 2015-2016 school, only 7% went onto playing a sport in college and only 2% play at the NCAA Division 1 level ("Odds of a High School Athlete", 2016, para. 2) . On a more positive note, most high school varsity athletes pursue a post-secondary education in some way and should be prepared in high school to do so with the help of their coaches, teachers, and parents.

Purpose of the Study

First-generation students are less academically prepared for college and "at-risk of being academically, socially and economically left behind their non-first-generation peers, even when their motivation and academic credentials are equal" (Murphy & Hicks, 2006, p. 3). Therefore, the purpose of this study was to explore the ways in which participation in high school varsity athletics positively influenced the academic success of first- generation college students at Suburban Private University (SPU). The research literature indicated participation in high school athletics is linked to improved educational outcomes during high school, but this study examined the long-term academic benefits

for first-generation students at SPU while in college. The focus of this research was to investigate the relationship between high school varsity athletic participation and first-generation student persistence to college graduation. The study was designed to determine if first-generation college students who were former high school varsity athletes earned higher grade point averages (GPA) in high school and during college and graduated from SPU in less semesters than their non-athletic first-generation counterparts. The results of this study also offer some insights into first-generation college students' perceptions of the long-term academic benefit of their experience as high school varsity student-athletes.

Past literature has some conflicting evidence regarding whether participating in high school athletics improves or decreases academic success while in high school. Nevertheless, this study explored deeper into the transferable life skills and personality traits, such as grit, growth mind-set, and internal locus of control, that may be enhanced through participating in high school varsity athletics and improve collegiate outcomes for first-generation students. Data from this study contributed to the already existing research about the characteristics that may contribute to first-generation college student academic success. From a psychosocial standpoint, this study explored the possible long-term benefits of four years of participation in high school sports which enhance character development. The study also explored behaviors typically enhanced through varsity sports and linked them to first-generation college student persistence to graduate within six years of high school. This study determined what, if any, impact their athletic background in high school had on first-generation students' academic success at SPU.

An additional purpose of this study was to add a possible supplemental segment to the Coaches, Athletes, and Parents (CAP) orientation meeting held at the beginning of each new sports season in my school. The meetings are designed to align the expectations of all student-athletes, their parents, and coaches to the MSHSAA requirements while the participants are "in season." However, perhaps with an additional segment on the long-term academic benefits of participation in high school athletics, this researcher might convince more parents to encourage their children to participate in athletics for all four years of high school, rather than allowing them to quit when they do not get enough playing time or are not skilled enough to earn an athletic scholarship. This study helped clarify the academic benefits of high school athletics for all who participate, especially for future first-generation college students. Research has proven that high school student-athletes experience a magnitude of benefits from participation, way beyond the scope of potential athletic scholarships earned by a handful of college-bound high school athletes. Ultimately, the purpose of this research was to uncover the hidden academic benefits of participation in high school varsity athletics.

Hypotheses and Research Questions

H1: First-generation college students who participated in varsity high school athletics will have a higher college grade point average than first-generation students who did not participate in high school athletics.

H2: First-generation college graduates who participated in varsity high school athletics will persist to graduation in fewer semesters than first-generation graduates who did not participate in high school athletics.

H3: There will be more first-generation college graduates who participated in high school athletics than first-generation graduates who did not participate in high school athletics.

Research Question #1: What do successful first-generation college students think about their high school varsity athletic experience as preparation for their college success?

Research Question 2: What do successful first-generation college students report as their high school athletic teammates' and coaches' influence on their college success?

Research Question 3: Do these first-generation former varsity athletes see their athletic experience as influencing their choice of college major?

Research Question 4: What themes emerge in the data of the persistent first-generation former athletes?

Definition of Terms:

Athletic identity: The degree to which a person identifies with an athletic role as part of his or her self-concept; athletic identity shows how one's athletic involvement and experience can affect the person psychologically and cognitively (Chen, Snyder, & Magner, 2010, p. 179).

First-generation college student: Student's mother and father both did not attend college (Nunez & Cuccaro-Alamin, 1998).

Grit: Mental toughness, courage, and resolve; strength of character. The tendency to pursue long-term challenging goals with perseverance and passion ("True Grit", 2013, p. 10).

Growth mind-set: A person with a growth mind-set believes that intelligence can be developed, so that person embraces challenges, gives best effort, learns from feedback, becomes inspired by others' successes, and believes intelligence can change with hard work (Dweck, 2006, p. 7).

Locus of control: A theoretic construct designed to assess a person's perceived control over personal behavior; internal control defined as a predominance of outcomes perceived to be determined by one's own behavior and characteristics, and external control defined as outcomes perceived to be determined by chance, fate, or other outside forces (Otten, 1977, p. 644).

Suburban Private University (SPU): A pseudonym for a private, midsized, liberal arts institution in the Midwest, with Presbyterian affiliation. SPU has an approximate student population of 8,000 domestic and international students, which includes students who are earning bachelors, masters, and doctorate degrees. SPU has an annual estimated tuition cost of $15,000 a year with 58% of student body awarded student aid in the form of scholarships and grants. The main campus of SPU is located about 40 miles outside of St. Louis, Missouri (College Handbook, 2015, p. 696).

Limitations

All the participants in this study were selected based on their status as first-generation college students at SPU and had completed high school within the last six years. Demographic quantitative data were gathered from first-generation second-year students and college seniors who completed the survey and met this researcher's definition of first-generation; a college student's mother and father both did not attend college. Additionally, the focus group participants completed the demographic survey,

self-reported participation in high school varsity athletics, and volunteered to participate in a focus group. Therefore, the results of the focus groups might be skewed in favor of the academic benefits of high school athletics.

There were four limitations to this study:

1. This study did not deal with cause and effect.
2. Based on the small size of the volunteer participant sample at one institution, the results cannot be generalized to all first-generation students.
3. The demographic survey used to collect data was created for this study; therefore, it has not been proven reliable or valid.
4. Data gathered through the demographic survey focus groups are only as reliable and valid as the participants are truthful in their perceptions.

Summary

The study was developed after the researcher's 17 years of experience as a high school college and career planning counselor, 20 years as a high school coach, and personal experience as a high school student-athlete and first-generation college student-athlete. The purpose of this study was to investigate the possible ways in which participation in high school varsity athletics may have positively impacted academic success of first-generation college students at SPU. This study primarily investigated the academic differences between first-generation students who participated in high school varsity athletics and first-generation students who were not high school athletes. In part, the study examined self-reported quantitative data of first-generation college students; former high school varsity athletes, college athletes, and nonathletes. Additionally, to establish triangulation of literature review and quantitative data from the close-ended

survey questions, two voluntary focus groups of former high school varsity athletes were facilitated.

During the focus group sessions, the perceptions of the former high-school-only athletes and SPU athletes were examined to discover possible immediate and long-term academic benefits of participation in high school varsity athletics. The researcher purposefully investigated why second-year students thought they were successful in college, while many first-generation, first-year college students drop out. The study also explored first-generation college seniors' perceptions about why they thought they persisted to college graduation, when many first-generation college students never earn a bachelor's degree. This mixed-methods research design utilized first-generation college students at SPU to investigate the relationship between participation in high school varsity athletics and persistence to college graduation.

Chapter Two: The Literature Review

The review of the framing literature investigated topics regarding the focus of this research study, the possible relationship between participation in high school varsity athletics, and first-generation college student persistence to graduation. The literature review included an examination of previous research on (a) the impact of extracurricular activities during the high school experience, (b) the possible academic benefits of participating in varsity athletics, (c) the characteristics typically enhanced through athletics, (d) behavioral traits that may transfer to academic success in college, (e) first-generation college students, and (f) the importance of earning a bachelor's degree. Athletic teams are an important entity in most high schools in the country and in the American culture at large. The National Federation of High School Sports reported there were 7.8 million high school athletes in the United States during the 2014-2015 school year (NFHS, 2016b, p. 55)). The current study focused on transferable life lessons enhanced through high school varsity-level athletics and the ways in which those behavioral skills translate to college success, especially for first-generation college students. There is a need to improve first-generation college graduate rates because less than 25% of first-generation students earn a bachelor's degree (Opidee, 2015, para. 2). Although the demographics of first-generation students differ significantly, this study focused on first-generation students in general. The imperial question of this study asked if first-generation former high school varsity athletes have better educational outcomes than their nonathletic counterparts.

The Impact of High School Extracurricular Activities

Extracurricular activities are a vital part of the high school experience and contribute to personal characteristics and life lessons learned in adolescence. Nationally, it was estimated that about 83% of K–12 students participate in at least one extracurricular activity during their schooling (Kennedy, 2008, p. 38). Students who participate in extracurricular activities pursue their interest areas outside of the classroom, which can add to their overall enjoyment of attending school. Whether a student is involved with marching band, a school club, or an athletic team, there are positive benefits extended to participants and the school community. Oftentimes, the public's view of a specific school is based more on the school's extracurricular activities than on its standardized test scores or graduation rate. Many studies discussed in this literature review have determined that extracurricular activities and student academic outcomes are complementary.

As explained by Barber and Eccles (1999), about 40% of adolescent waking hours are discretionary (no school, employment, or chores); therefore, how a high school student uses that unstructured time can be linked positively or negatively to his or her academic outcomes and behaviors (p. 12). A vital function of voluntary participation in any type of extracurricular activity is that it provides an automatic peer group of kids and channels friendships between students who have similar interest areas. For example, involvement in athletics, performing arts, or student organizations is likely to reinforce positive behaviors, emerging adolescent identities, and academic focus and may even enhance future aspirations. Additionally, it is commonly understood that encouraging

teenagers to get involved in positive activities reduce their opportunities to get involved in risky activities that oftentimes result in negative educational outcomes.

Research about the impact of extracurricular activities date back to the 1930s (Baxter, 1936; Holland & Andre, 1933). However, despite many studies completed since then about the influence of extracurricular activities on student outcomes, still little is known about the ways in which participation helps academic achievement. During a more recent review of the literature about the value of extracurricular activities in the United States stated that extracurricular activities are highly important for "developmental settings for adolescents," but not enough is understood about the "contextual influences" affecting the relationship between participation and positive outcomes (Feldman & Matjasko, 2005, pp. 160–161). For the current study, the researcher followed Feldman and Matjasko's (2005) advice and utilized a control group to get a clearer picture of the comparison of data between athletes and nonathletes.

This review of the literature revealed a wide variety of studies that have been conducted to investigate the value of high-school-sponsored extracurricular activities. Each study is unique in its focus as it relates to specific factors, such as student retention, self-esteem, or dropout rate. Some studies were small and specific; some included many schools or all extracurricular activities. Other studies analyzed just one school-sponsored activity as it relates to a multitude of academic and social factors. Psychologists have conducted a handful of studies focused on the developmental aspects of extracurricular participation and the impact on the participants over a long period. To date, there is not any conclusive evidence that participation in high school extracurricular activities leads

to success; however, most of the literature available leads us to believe there is a strong association between participation in extracurricular activities and student success.

Researcher Shulruf (2011) conducted a meta-analysis of 136 studies that involved extracurricular activities that indicated associations between participating in extracurricular activities and positive academic trajectories. Of the 136 studies, Shulruf identified 29 that described the methodology and specifically analyzed school attendance, grade point averages, test scores, dropout rates, and motivation to attend college. Shulruf (2011) concluded that, no matter what kind of extracurricular activity a high school student gets involved with, there are usually positive academic and/or social outcomes, due in part to a higher level of student engagement and a sense of belonging to a unique peer group within a larger school setting. His meta-analysis challenged the assumption that student participation in extracurricular activities supports positive educational outcomes and aimed to ask the question, can a positive academic causal effect be proven (Shulruf, 2011)? In sum, direct causal effects could not be confirmed by his study, which left unanswered questions about what exactly it is about participation in extracurricular activities that can be linked to mostly positive outcomes. As Abramson (1995) suggested, we can never really prove a causal relationship, the best we can do is obtain reasonable evidence to be used as a basis to decide if there is a relationship or correlation between two factors.

To illustrate this point, Zwart (2006) conducted a small quantitative study at Paramount High School in California set out to evaluate the benefits of extracurricular activities on academic achievement. The 2006 study specifically looked at cumulative GPAs and standardized test scores in math and English/Language Arts and compared

data of 25 sophomores involved in athletics and in the music program to 25 sophomores who were nonparticipants. Although this study was done on a small scale, Zwart (2006) revealed the athletes and music students outperformed their nonparticipating counterparts in all areas. Utilizing a *t*-test comparison, the evidence indicated there was a statistically significant difference between both student athletes and nonathletes and music students and non-music students in the grade point averages and standardized math and English test scores (Zwart, 2006, p. 5). The study was conducted to prove to school administrators, faculty, parents, students, and all stakeholders they should not only tolerate extracurricular participation, but they should encourage it because of the academic benefits.

On a broader scale, the National Education Longitudinal Study (NELS, 1988) also investigated the relationship between extracurricular activities and educational outcomes. The brief reported that students who participate in extracurricular activities typically have better attendance, higher academic performance, and a stronger desire to pursue postsecondary education than their peers who are not involved in extracurricular activities (Gerber, 1996). Whether it is participation in a sport, academic club, student government, visual arts, or performing arts, the benefits of student involvement should be highlighted and promoted to possibly increase student participation. The brief linked participation in extracurricular activities to better student attendance and indicated that students involved in extracurricular activities were three times as likely to be in the top 25% of their class in math and reading assessments (Educational Corner, 2016, para. 1). The NELS (1988) brief also stated that successful high school students are more likely than unsuccessful students to participate in extracurricular activities and roughly 65% of

the students who participated in extracurricular activities were expected to complete a college degree, while only 50% of students who did not participate in extracurricular activities were expected to go on to college (Educational Corner, 2016, para. 3).

As reported by Feldman and Matjasko (2005), despite the large body of literature on adolescent development, surprisingly little attention has been placed on the positive aspects of high school extracurricular activities (p. 161). At most high schools in the country, there is a wide variety of options within the extracurricular opportunities available. However, the positive impact of participating is often underpublicized. Therefore, not all parents encourage their children to take advantage of the benefits of belonging to a smaller group of like-minded individuals. Student participation in extracurricular activities serves as a controlled platform for teenagers to act out the developmental task of adolescence (ages 14–18) and explore their identity in a safe setting outside of the traditional academic classroom. The extracurricular activities an individual chooses to participate in are influenced by their personal strengths, interest areas, friends, and families. Therefore, teenagers who participate in extracurricular activities typically enhance personal characteristics, behavioral traits, and increase their life experiences through participation.

The ecological systems theory (Bronfenbrenner, 1977) serves as a solid framework for sociological and psychological aspects of human development. The ecological approach states that a person, his or her environment, and the relations between the two are a system. In Bronfenbrenner's vision, a person's relations within the developmental system of positive and healthy development helps to enhance their "life course" (Bronfenbrenner, 1977, p. 513). Therefore, the extracurricular activities a

student participates in must make an impact on that student's human development. In his book, Bronfenbrenner described the *microsystem* as the setting in which a person behaves at a given time in his or her life (Bronfenbrenner, 1977, p. 513). Additionally, he defined *mesosystem* as the set of microsystems within a person's development within a given point in his or her life (Bronfenbrenner, 1977, p. 515). Thus, the extracurricular activities selected by a high school student, the roles the student takes on, and the relationships that are developed are all part of human development during adolescence. Also predictable are the lasting effects of what is learned in a certain environment. Thus, participating in high school extracurricular activities are likely to impact the process of an adolescent's transition from high school to college and adulthood.

#MyReasonWhy: Benefits of High School Activity Programs

While conducting research for this study, a complementary research study was being simultaneously conducted through the National Federation of High Schools (NFHS). Since 1920, the NFHS has led the development of interscholastic sports and activities. Their aim is to build awareness and support, improve participation experience, and establish standards and rules for completion. The NFHS serves 18,500 high schools in its 50 member states and currently serves over 11 million students. The NFHS oversee rules and standard practices for 16 boys' and girls' sports and support a multitude of other student activities (NFHS, 2016a, para. 2). On October 3, 2016, Robert Gardner and Gary Musselman, NFHS executive director and president, respectively, announced a national campaign to gain evidence of the value of participation in school-based sports and activities from the participants and sponsors themselves (Gardner & Musselman, 2016). The goal of #MyReasonWhy was to highlight the benefits of high school activities

and encourage all schools to increase participation in their offerings. The campaign encouraged current and former high school students, parents, coaches, and sponsors to tell the NFHS the reasons why they participated and what they have gained through high school activities. The aim was to show how participation develops individual skills and character to enhance a stronger sense of self for students during their participation and for the rest of their lives. The NFHS website and Facebook, YouTube, Twitter, and Instagram accounts are all part of the #MyReasonWhy initiative.

Youth Sports Statistics

To illustrate the popularity of one such extracurricular activity, this researcher focused on athletics. Many children join a youth sports team even before they start their formal education. Youth sports researcher Don Sabo estimated that 60% of boys and 47% of girls are already on athletic teams by the age of six (Kelley & Carchia, 2013, p. 3). Oftentimes childhood experiences outside of the family home and schools include recreational team sports. This may seem to be a known fact in the American culture, but oddly there has not been a great deal of valuable research conducted about youth sports. After careful review of the statistics about the popularity of youth sports, this researcher found that in 2015 it was estimated that 66% of boys and 52% of girls ages 5–18 have been on at least one athletic team during their childhood (Statistic Brain, 2015). The most informational and notable report on the overview of youth sports in the United States appeared in the Kids in Sports issue of the *ESPN Magazine* in the summer of 2013. This publication reported that 21.47 million kids between the ages of 6 and 17 participate in competitive youth sports programs across the country, annually spending an estimated five billion dollars (Kelley & Carchia, 2013, p. 1). Additionally, the report stated that the

more money a family has, the more likely their children are to join a team at a young age and that boys typically start participating before their female counterparts.

Involvement in a youth sport is usually initiated with a parent's level of interest in a specific sport because of their own positive experience. Parents oftentimes want their child to be exposed to athletics as early as possible so they can share the athletic experience with their child, as they probably did in their own childhood with their parents. The aim in participating is usually to expose the child to all that embodies the experience of a specific sport, the importance of teamwork, and value of sportsmanship, as well as to develop the child's physical ability and enhance the health benefits associated with physical activity and to develop relationships with their peers and coaches. A survey by the Women's Sports Foundation, indicated only 13% of boys and 18% of girls between the ages of 8 and 17 had never joined an athletic team growing up (Kelley & Carchia, 2013, p. 11).

Transition from Youth Sports to High School Athletics

Typically, by the time students reach high school, most have already had some experience with youth sports. The more athletic individuals make a natural transition to high school athletics easily. For others, the decision not to pursue high school athletics also comes easy. As part of the ESPN's summer 2013 Kids in Sports focus, it was reported that 2.9 million boys (37%) and 2.3 million girls (30%) played on high school athletic teams during the 2011–2012 school year (Kelley & Carchia, 2013, p. 6). Freshman-level athletic teams are a good stepping stone to the competitive world of high school varsity athletics. In larger high schools, there are usually tryouts to make the freshman roster, which can add to the stressful transition to high school. Sometimes

potential athletes notice the level of competition on the squad during the first days of tryouts and do not return to the practice venue, knowing they are unlikely to make the team and taking the lead to eliminate themselves before the coaches must make the decision. Realistically, some kids who have grown up playing a certain sport in recreational leagues do not make it onto the freshman roster, which destroys their chance of benefiting from the high school athletic experience.

However, the freshmen who do make an athletic team can experience the pride that comes with representing their new high school and can develop relationships with their teammates and coaches. During a season, athletes spend significant time with their athletic peers during practice, study hall, in competition, and on road trips to other schools. They are also held more accountable for their academic status, having coaches and teammates aware of the eligibility standards they must maintain to stay academically eligible. For many freshmen, the experience of being on an athletic team enhances their overall transition to high school and provides a positive way to get involved in the school culture. Freshman athletes can represent their school by wearing team attire and can associate with the varsity-level upperclassmen within their specific sport, which builds their social circle. All these factors improve their attachment to their school, build academic accountability, and create a sense of unity with their peers.

Conversely, oftentimes after experiencing freshman-level athletics, students choose to stop participating in athletics and to focus their attention on other pursuits. Kelley and Carchia (2013) explained that millions of kids phase out of sports, with the biggest drop-off is during or after the freshman year (p. 7). However, those athletes who stick with it and become varsity athletes typically choose to specialize in the one or two sports in

which they are most skilled. As their sport career continues during high school, their family, friends, coaches, and teachers typically support them in their athletic role. At the end of high school, some varsity athletes make the decision to pursue a collegiate sport, but the majority do not. The most recent 2016 NCAA national statistics estimated that only 7% of high school athletes advance to play a sport at a collegiate level ("Odds of a High School Athlete", 2016, para. 2).

Defining Athletic Identity

Athletic identity is the degree to which a person identifies with an athletic role as part of his or her self-concept and shows how one's athletic involvement and experience can affect the person psychologically and cognitively (Chen et al., 2010, p. 179). Oftentimes, the athletic identity of student-athletes flows into their career choices, connecting their profession to the world of sports or working with other athletes. The Sports and Fitness Industry Association conducted thousands of online interviews in 2011 with kids 6–17 years old and reported that 61% of the boys and 34% of the girls said sports are "a big part of who they are," (Kelley & Carchia, 2013, p.5.) which supports the ideals of athletic identity.

The way in which an athlete is perceived by others and the way they see themselves as an athlete, are part of their athletic identity. The impact of a well-defined athletic identity is multidimensional and can include a person's attitudes, behaviors, and self-confidence. Multiple studies utilizing the athletic identity measurement scale have shown that athletes who have a strong athletic identity typically possess a higher level of motivation to reach their goals and increased self-identity (Chen et al., 2010). Conversely, however, the results have also revealed a strong identification with an

athletic role can contribute to negative self-perceptions concerning academic achievement and a lack of vocational aspirations (Cornelius, 1999). Consequently, it is expected that when high school athletes identify themselves with only their athletic identity, other dimensions may not develop as they should (Ryska, 2002). In the case of a first-generation student-athlete, it is possible he or she identifies more with their athletic identity than as a college-bound student. Therefore, future first-generation student-athletes may lag academically behind their non-first-generation peers who have known from an early age that they will most like go to college. Non-first generation college bound students are often told from an early age that their education is their first priority and less important than athletic identity.

The Experience of a High School Athlete

Some recent statistics demonstrated the enormity of the high school student-athlete population in the United States. The National Federation of State High School Association reported 7.8 million total athletes in the 2014–2015 school year (NFHS, 2016b, p. 55). This statistic shed light on the increased popularity and offerings of organized school-sponsored high school sports since 1971, when it was first reported there were 3.9 million participants in the country NFHS, 2016b, p. 55) . As John Gillis, associate director of NFHS, explained, students feel a strong sense of loyalty to their school when they play high school sports. “You’re wearing the jersey and representing the school. You learn life lessons like teamwork and leadership. Those lessons benefit you as you become an adult” (NFHS, 2008, para. 1).

Like it or not, high school athletics are a large part of almost every community in the country and immersed in the American culture. High school student body, school

employees, parents, and the community at large take an interest in how school-sponsored sports teams perform each season. People happily praise the victories and negatively comment on the defeats. Absorbed into the school culture, the student-athletes themselves, are exposed to the good and bad of wearing a school jersey while they represent their coaches and schools in competition. Through these experiences, high school athletes often gain leadership traits, self-confidence, social skills, respect for others, and the ability to cope with adversity.

In exchange for the privilege of being on a high school athletic team, athletes must commit to attend annual summer camps, early-morning and off-season workouts, team fund-raising efforts, and months of strenuous after-school practices while they maintain the academic eligibility requirements. It was reported that 43% of high school seniors in the United States had participated in some level of athletics over the four years of high school (Feldman & Matjasko, 2005). Many high school students choose not to participate in athletics due to the commitment, physical ability, or lack the academic requirements. Besides the physical aspects and the competitive factors involved with high school athletics, participating on an athletic team typically influences the development of the most important life lessons and interpersonal relationship skills. Research showed that high school student-athletes often thrive during high school and that involvement with athletics is complementary to their academic outcomes.

Evidence of Academic Benefits of High School Athletics

It is well known that exercise improves physical, psychological, and social skills, and therefore most high schools have athletics as part of their extracurricular options. Previous studies have found that higher levels of physical activity are associated with

better academic outcomes; however, it remains unclear whether there is a correlation due to physical fitness or if the benefits come from participation in a team sport (Fox, Barr-Anderson, Neumark-Sztainer, & Wall, 2010). As reported in the *Journal of School Health* in 2007, regardless of whether academic success was related to the actual physical activity or linked to participation on a sports team, findings indicated "positive educational outcomes are related to middle school and high school athletes" (Fox et al., 2010, p. 31).

Prior research concerning the relationship between high school athletics and positive educational outcomes has tended to report that participating on a school-sponsored athletic team increases concentration on academic achievement (Lipscomb, 2007). Additionally, athletic involvement often produces a higher level of self-esteem, greater self-monitoring, and the development of a realistic sense of internal locus of control for students who choose to participate (Swanson et al., 2012).

One of the most comprehensive studies conducted to explore the academic benefits of high school athletics utilized athletic data from the Kansas State High School Activities Association. The study was designed to analyze academic performances of students in grades 9–12 who participated or did not participate in high school athletics in the 2008–2009 school year. Lumpkin and Favor (2012) made overall comparisons between athletes' and nonathletes' GPAs, graduation rates, number of dropouts, ACT scores, and state assessments utilizing data from the Kansas State Department of Education. During the 2008–2009 school year, 139,349 students were enrolled in grades 9–12 in Kansas, and of these, 62,297 (44.7%) were student-athletes (Lumpkin & Favor, 2012, p. 46). In summary, positive differences between athletes and nonathletes were

found for males and females across all academic measures. Most notably, of the 17,249 nonathletes for whom data was collected, 88.1% graduated, and of the 12,218 athletes in the study, 97.6% graduated from high school (Lumpkin & Favor, 2012, p. 55).

At the time of Lumpkin's study, she was a professor in the Department of Health, Sport, and Exercise Sciences at the University of Kansas. She was motivated to conduct the study because of significant reductions in Kansas state funding for high school athletics and she wanted to prove that participation in high school sports made a difference in educational outcomes for those who take part. At first, the Kansas State High School Activities Association was resistant to her team conducting the study, but once they saw the results, they were very pleased and asked her to conduct a follow-up study three years later. The secondary study also resulted in positive academic outcomes for those students that participate in high school athletics compared to those who do not (Lumpkin & Achen, 2015). Currently, Lumpkin is a Sports Management professor and Department Chair at Texas Tech University.

During this study, the researcher contacted Dr. Angela Lumpkin about her opinion about the possible long-term academic benefits of participation in high school athletics and her opinion about the influence varsity athletics might make on first-generation college students.

> I believe students who do not get involved in school-sponsored activities, such as athletics, are at risk of not thriving in high school and college. Without school engagement, character development, and experiencing a good amount of life skills, college sure would be harder, especially for first-generation college students. (A. Lumpkin, personal communication, November 29, 2016)

Another statistically significant study regarding the long-term academic benefits of participation in high school sports was conducted at Brigham Young University in 2007. The correlational study discovered that females who played a sport in high school were 41% more likely to graduate from college than those who did not play sports in high school (Hadfield, 2007, p. 1). The Troutman study provided powerful evidence that there are lasting benefits of participating in high school athletics, at least for females at Brigham Young University in 2007.

In the 1990s, Whitley conducted one of the largest longitudinal research studies to analyze the performance of high school athletes versus their nonathletic counterparts. In collaboration with the North Carolina High School Athletic Association and its Student Services Division, he utilized data from 285,805 North Carolina high school students (Whitley & Pressley, 1995). He compared five data points, and the results indicated that athletes had better grade point averages, attendance, citizenship, graduation rate and a lower dropout rate. The most significant of Whitley's findings was that the mean GPA for athletes in the study over a three-year period was 2.86, while average for nonathletes was only 1.96 GPA (Whitley & Pressley, 1995, p. 2). Whitley said that his study "shows that participation in athletics serves as a positive motivational factor for students; there is a direct relationship between participation in athletics and academic success" (p. 2).

Social-Emotional Benefits of Participation in High School Athletics

One of the most important benefits of participating in a high school team sport is the social-emotional aspect of working together for a common goal. High school athletes learn the value of effective communication, mutual respect, acceptance of diversity, and the camaraderie that develops between teammates. In more individual sports such as

cross country, golf, and wrestling there are glimmers of team awareness and goal setting, but the individuals on the team have significant personal goals that overshadow the team concept. However, team sports that include a ball that is used to score points typically increase the amount of verbal and physical exchange among the teammates, adding to the goal of successful teamwork. For example, basketball, football, and volleyball demonstrate that all the athletes must do their part for the team to win. Equally as important, when a team loses, everyone on the team experiences it together. From the perspective of the social exchange theory (Blau, 1964), there are many beneficial reasons to participate in high school team sports, even when an individual does not have the athletic skills necessary to be a superstar or advance to the collegiate level. Teenagers gain valuable insight from the experience, discovering that the sum is greater than its parts and that working together for a common goal is enjoyable and worthwhile. Most importantly, the value of teamwork can be applied to other aspects of an individual's life.

Unlike the academic focus in a traditional classroom environment, extracurricular activities such as athletics help students learn the value of teamwork and competition, positive interpersonal relationships, and delayed gratification to reach long-term goals. As the *Missouri State High School Activities Association Official Handbook* (2016b, p. 18) stated in the philosophy section:

> Interscholastic activities are an integral part of the secondary curricular program. This program shall provide educational and social experiences for the students and school community which result in positive learner outcomes contributing to the development of good citizenship, sportsmanship and equitable completion.

High school athletes often gain self-confidence, work ethic, time-management, and the ability to overcome physical challenges and adversity. High school student-athletes experience the enjoyment that goes along with team camaraderie and the joy of victory, but, most importantly, they learn how to cope with losing, making mistakes, injury, and disappointment. Athletes quickly learn that sometimes-hard work and sacrifice pay off and sometimes they do not. These transferable life skills, among others, often assist high school athletes to complete high school successfully and pursue college with the grit necessary to earn a college degree in a timely manner.

Negative Aspects of High School Athletic Participation

Much of the past research on high school athletics has shown conflicting evidence concerning whether participation in athletics improves or decreases students' academic success while enrolled in high school. There are some negative stereotypes associated with high school athletics because some athletes excel on the playing field but not in the classroom. There is often concern about the effect of being a high school athlete because some individuals concentrate on their sport more than their grades. Varsity high school athletes are often thought of as being arrogant and cocky but not academically sound, which can sometimes become a self-fulfilling prophecy for exceptional athletes. Nonetheless, the "dumb jock" stereotype is not as prevalent as it has been in the past, and more attempts are being made to inspire student-athletes to fully succeed academically. Not surprisingly, many high school athletes and their parents have the goal of securing an athletic scholarship to attend college at a reduced price. NCAA (2016) reported about two million dollars are given in the form of athletic scholarships to NCAA Division 1 and Division 2 athletes.

The disconnect between athletes and academics is less evident nowadays because there are more stringent academic eligibility standards for high school athletes and stricter academic eligibility standards for collegiate sports. However, the NCAA and NAIA standards are still lagging the typical four-year college admission requirements. One of the most negative controversies regarding college athletics is that it has been estimated that recruited athletes are as much as four times more likely to gain admission than other applicants with similar academic credentials (Conn, 2012, p. 23). Therefore, a huge problem exists when first-generation college-bound high school athletes (and some parents) realize their athletic talent and minimal academic achievement could essentially get them to college in the form of an athletic scholarship, but their academic focus is somehow missing.

Athletic Coaches and Teammates as Liaisons to College

As the current study demonstrates, high school athletic coaches and teammates are a vital part of preparing student-athletes for their futures, beyond playing time. The role of the "athletic family" including coaches and teammates is very influential on the development high school student-athletes. Most coaches understand the reality that their athletes probably will not become professional athletes and only a few will compete at the collegiate level. Therefore, the goals of a great high school coach are to primarily maximize their athletes' athletic talent, motivate them to succeed academically, and provide opportunities to practice valuable life skills. After a comprehensive study of winning high school head football coaches, Lacy and Darst (1985) determined the best factors to determine an effective coach were an equal mix of praise and scold and 50% of the time a coach has in front of his athletes should be for instruction, with constant role

modeling of work ethic and goal orientation. Beyond the win-loss record; academic success, graduation rate, and their athlete's postsecondary plan must be on the forefront of every high school coach's mind. Today, it is very common that high school coaches require mandatory study halls, document tutoring time for student-athletes who struggle academically, perform grade checks on a regular basis, and bench student-athletes who do not meet the academic and citizenship standards. One of the most valuable aspects of team sports in high school is the fact that an athlete's teammates provide academic role models for their athletic peers. Ideally, the upperclassman provides academic assistance to those younger athletes who need additional help to balance the workload of being a successful college-bound high school student-athlete. For athletes who have parents without college experience, the role modeling and academic support of their college-bound peers are priceless.

Academic Eligibility Standards for Missouri High School Students

It was reported that during the 2014-2015 school year, there were a total of 7.8 million eligible high school athletic participants in the nation and nationwide, with 109,905 in the state of Missouri (NFHS, 2016b, pp. 55-56).). The *MSHSAA Official Handbook* (2016a, pp. 42-43) stated that eligibility requirements are voted on and enforced by the member schools. Missouri student-athletes and all those who participate in school-sponsored activities must comply with MSHSAA eligibility standards as well as possible additional local school district guidelines to be eligible to participate (MSHSAA Handbook, 2016a, p. 42). Participants must be enrolled in and regularly attend classes at the school they represent, be a creditable citizen in and out of school,

and meet the academic requirements. Missouri state high school student-athlete academic requirements as of July 1, 2016, were as follows:

a) Semester Prior To Participation: The student must have earned, the preceding semester of attendance, a minimum of 3.0 units of credit or have earned credit in 80% of the maximum allowable classes in which any student can be enrolled in the semester, whichever is greater at their school (p. 42).
b) Semester of Participation: The student must be currently enrolled in and regularly attending courses that offer 3.0 units of credit or 80% of the maximum allowable credits which may be earned at his or her school, whichever is greater (p. 42).
c) 80% Credit Requirement: Earned or completed after the close of the semester will not fulfill this requirement. Summer high school courses for fall academic eligibility may count provided the course is necessary for graduation or promotion or is a core subject course, and credit is placed on the school transcript. No more than one unit of credit in summer school shall be counted toward fall eligibility (p. 42).
d) Entry into Ninth Grade: A beginning ninth grade student shall have been promoted from the eighth grade for the first semester eligibility (p. 43).
e) A student must be making satisfactory progress towards graduation as determined by local school policies (p. 43).

Academic Eligibility Requirements for College-Bound High Student-Athletes

Since the creation of the NCAA in 1910, college sports have gradually become an integral part of student life (Chen et al., 2010, p. 1). For high school athletes to aspire to play a sport at the collegiate level is admirable, but it takes more than athletic skills to get

them on a team; it also takes academic eligibility. The NCAA and NAIA are two separate governing bodies of college athletics. Eligibility requirements and scholarship rules for the NCAA are stricter than those of the NAIA. However, in both divisions, eligible student-athletes must meet the core course requirements, grade point average standards, and ACT and SAT guidelines.

The National Collegiate Athletic Association is the governing body for around 1,200 schools. It consists of three divisions (Divisions I, II, and III) and oversees 23 sports. Divisions I and II both offer athletic scholarships, with approximately 150,000 student-athletes receiving partial or full athletic scholarships. NCAA reported of the nearly eight million high school athletes, only 460,000 complete as NCAA college athletes and of those only 150,000 receive a share of the 2.7 million each year in athletic scholarships (NCAA, 2016). Division III student-athletes can only receive academic or nonathletic scholarships; no athletic scholarships are allowed. Each year, the NCAA provides an estimated one billion dollars in athletic scholarships (NCAA, 2016). The NCAA's graduation success rate data for 2014 reported 84% of Division 1 athletes who entered college in 2007 graduated within six years (New, 2014, para. 2). To play Division I or Division II college sports, a high school student-athlete needs to be academically eligible. New requirements for college-bound student-athletes enrolling full time at an NCAA Division I college or university on or after August 1, 2016, have strengthened the academic focus of high school athletes. Now a potential Division I athlete must successfully complete at least 10 core credits before they start their seventh semester of high school. Of the 10, seven must be approved English, math, or science and are "locked in" for core grade point average calculations. Those 10 classes cannot be

retaken once the senior year begins (NCAA, 2016). For those athletes who fall short of the NCAA Division I requirements directly after high school, there is the possibility of an academic redshirt year. Student-athletes that graduate from high school with a minimum GPA of 2.00–2.29 in the 16 core courses, and meet the minimum sliding ACT index score or SAT score are eligible for scholarship and practice but are unable to compete. After the first term is complete, the student-athlete must be academically successful, completing nine semester credit hours, and must continue to practice for the remainder of the first year. If a college-bound student-athlete does not meet either set of requirements, he or she is a non-qualifier and cannot receive athletic aid and cannot practice or compete thereafter.

In comparison, the National Association of Intercollegiate Athletics consists of 300 schools and 13 sports. The NAIA is a smaller association than the NCAA, with approximately 60,000 student-athletes. It has two divisions (Division I and II), and Division I in the NAIA is comparable to Division II in the NCAA. Over 90% of schools in the NAIA offer scholarships, and NAIA athletes receive an average of $7,000 of financial aid. However, it is impossible to say how many athletes receive scholarships because the NAIA does not have a central database like the NCAA does. The amount and type of scholarship athletes receive depend on, among other things, which association the school is affiliated with and which division within that association the school plays in. NAIA colleges provide 60,000 student-athletes with opportunities to play sports in college (NAIA, 2016).

The NAIA Eligibility Center is responsible for determining the NAIA eligibility of first-time student-athletes. Any student playing NAIA championship sports for the

first time must meet the eligibility requirements. Students must have their eligibility determined by the NAIA Eligibility Center. U.S. students who have completed their junior year of high school may obtain an eligibility determination from the NAIA Eligibility Center before or after graduating from high school if they meet all the following requirements:

1) Student enrolled at an NAIA institution immediately after high school graduation.
2) Student earned at least a 3.0 GPA on a 4.0 scale during high school.
3) Student met minimum ACT test score of 18 or 860 SAT (Critical Reading and Math) or 940 SAT (Evidence-Based Reading and Writing + Math), if taken after March 2016.

Characteristics Enhanced Through Varsity High School Athletics

The concept of "sports build character" has been adopted by many adults, but this study was designed to explore the perceptions of former high school athletes. The word *character* is associated with "social values such as teamwork, loyalty, self-sacrifice, work ethic, and mental toughness as opposed to moral values such as honesty, fairness, and responsibility" (Rudd, 1999, p. 2). Rudd's (1999) view of an individual's character is what helps an individual navigate through life while also maintaining self-control. The formal definition of characteristic is "a distinguishing trait, quality, or property and the integral part of a common logarithm" (Characteristics, 2016). The characteristics below were found in the literature to be enhanced through athletics and assist student learning.

Grit and self-control. An example of grit may be when a student decides to enroll in challenging courses in high school so they are more prepared for the rigor in college.

Someone with grit can accept delayed gratification, keeping long-term goals in mind as they go through the day to day challenges of getting to the end successfully. Duckworth (2016) explained grit may be just as important as intelligence in determining a person's success. "Gritty" people have stick-to-itiveness and typically reach their goals with a passionate and steady approach. To measure the amount of grit a person has, Duckworth developed the "Grit Scale" to measure perseverance of effort to achieve. The scale was designed to ask participants to rate how much they agree with statements such as "I have overcome setbacks to conquer an important challenge." Since Duckworth developed the Grit Scale, she has utilized it with Ivy League undergraduates, West Point cadets, and National Spelling Bee finalists to find out the amount of grit a person has significantly contributed to their success (Packard, 2007). However, after her massive investigation, Duckworth was surprised to discover that grit and IQ are not correlated; therefore, she suggests people should be taught to be gritty, not smarter (Duckworth, 2016).

Duckworth and Gross (2014) explained that two character traits predict achievement: grit and self-control (p. 319). They explained grit to be a person's tendency to persist toward very long-term goals and self-control as the voluntary regulation of impulses. Therefore, aspects of grit and self-control provide the motivational foundation for athletes to work hard to reach their goals day in and day out, no matter who their opponents are and no matter if they win or lose. Most varsity high school athletes are college bound, whether they continue their sport at college or not. High school student-athletes develop integrity by taking personal responsibility to meet the demands of their sport and the academic requirements required to stay eligible and keep their postsecondary options open. Some of the most important qualities high school coaches

can teach their athletes are the value of leadership, determination, and teamwork to reach goals. Student-athletes who succeed on the playing field often develop characteristics like grit and self-control and can transfer those skills to be successful beyond athletic competition. They possess high levels of grit and self-control that allow them not only to strive for personal goals, but also to have the passion and perseverance to reach them (Duckworth, 2016).

Growth mind-set. A person with a growth mind-set believes that intelligence can be developed, so that person embraces challenges, gives best effort, learns from feedback, becomes inspired by others' successes, and believes intelligence can change with hard work (Dweck, 2006, p. 7). Individuals who participate in athletics at any age experience skill-set development as they continue their sport. Athletes gain experience breaking down a skill and work to improve it over the course of time and adding to its complexity. With athletic success comes mastery, self-actualization, and self-confidence to take on other challenges in life, on and off the playing field. Athletes naturally learn to carry their growth mind-set attitude to other areas of life. For high school athletes, the life lessons that come with constant, never-ending improvement mind-set spill over to their academic life. Typically, by the time a high school athlete is an upperclassman and a member of a varsity team, he or she has developed a growth mind-set by accepting challenges and working hard rather than to give up or settle for a subpar outcome. Typically, high school varsity athletes thrive in both athletics and academics, especially if they are college bound.

Internal locus of control. The construct of internal versus external locus of control introduced by Rotter in 1966 as a product of social learning theory (Otten, 1977,

p. 644). It is the theoretic construct designed to assess a person's perceived control over personal behavior, with internal control defined as a predominance of outcomes perceived to be determined by one's own behavior and characteristics, and external control defined as outcomes perceived to be determined by chance, fate, or other outside forces (Otten, 1977, p. 645). Small children go day to day with an external locus of control because their parents and older siblings oversee the direction of their lives. Padron (1992) gave an example of external locus of control in his Miami-Dade Community College study. He stated that unsuccessful first-generation students often place blame for their poor academic outcomes on external situational factors rather than taking personal responsibility for their own fate. Blaming others for negative outcomes is typically a sign of immaturity. However, when adolescents realize they themselves have control over the outcomes in their own lives, based on their own actions they successfully transition into adulthood. Young adults often realize their own level of effort or lack of effort results in favorable or unfavorable outcomes and put their own efforts and outcomes into perspective. An example of how locus of control development is enhanced through high school athletics is when athletes either realize they can work hard to improve their skills to secure a top spot on the depth chart, or conversely, they blame their coach when they get kicked off the team because of their lack of effort. Internal locus of control is a valuable trait to master athletics, academics, and in the course of life.

Intrinsic motivation. Intrinsic motivation is also a key factor for successful student-athletes. People use intrinsic motivation when they engage in a specific activity they want to do rather than because of external benefits that might be obtained by other people noticing their behavior (Ryan & Deci, 2000). In athletics, participants must become self-

disciplined to work hard if they want to develop their skills, even when the coach is not looking. They play the game because they enjoy it, not just to receive praise for scoring or winning a game. The same is true in the academic realm: Students must develop intrinsic motivation to earn good grades, because their parents might not even notice, and their teachers might not have the time to give positive feedback every time they complete a homework assignment or score well on a test. Student-athletes typically learn over time that internal rewards are more motivating because they are self-directed and enhance self-esteem, even when nobody else notices.

Perseverance, resilience, and courage. Successful athletes as well as college students should keep their long-term goals in mind, especially when things go poorly or they hit challenges that make them want to quit. Resilient and courageous individuals try new things, even when they might not be good at something on the first try. Ledbetter (2015) explained the only way a person can become better at bouncing back from setbacks is to have setbacks (p. 146). Athletes must constantly cope with defeats and injuries, learn from their mistakes to complete the whole season, no matter what transpires. It takes a certain amount of persistence to win the district championship, resiliency to ace a biology test, and courage to be the first one in their immediate family to go to college. By having a passion for what they are involved in, student-athletes develop the ability to enjoy the moment aimed for their long-term goals. Seligman, a pioneer of positive psychology (Maslow coined the term) studied what makes life worth living and the importance of resilience. Seligman developed the science of maximizing the positive experience, positive individual traits, and positive promises to improve quality of life and prevent the pathologies that arise when life is barren and meaningless

(Seligman & Csikszentmihalyi, 2014, p. 279). His findings indicate that resilient individuals are more creative to find solutions to problems, are more realistic, and are not as likely to experience depression or anxiety. Not everyone can cope with delayed gratification in this fast-paced world, but athletes are taught to "peak" at the end of the season and to pace themselves in workouts to ensure they are healthy enough to make it to the state finals. For some, it is easier to quit striving for a goal than to have the courage to reach it. For athletes and first-generation college students, the victories are worth the hard work and the time it takes.

Leadership. Leadership is a vital characteristic as individuals move from adolescence to adulthood. Most life experiences are enhanced through interpersonal relationships and the ability to lead others. High school varsity athletes develop leadership skills that oftentimes transfer to the classroom and their overall educational outcomes. Most college applications have a "leadership" criterion that the admission counselors evaluate, because leadership characteristics indicate a well-rounded development and showcase the characteristics necessary to succeed. Individuals who continue their chosen sport(s) for four years and become a varsity captain, selected by their coaches and peers, are leaders. Leaders on the athletic field typically are leaders in the academic realm too. Highly selective colleges such as the U.S. Naval Academy favorably consider prior participation in varsity athletics a large part of their admission decisions (Atwater & Yammarino, 1993). Of course, military academies look at athletics favorably, but most other competitive universities recognize that varsity student-athletes typically possess leadership ability, a strong work ethic, and the time-management necessary to adjust to the demands of college and life.

The High School Transition: Postsecondary Education

Today most adolescents are expected to determine their career goals and develop a postsecondary plan by the time they graduate from high school. Conversely, as the literature explained only 82% of American high school seniors graduated during the 2013-2014 school year and the percentage of high school graduates who went directly to college fell from 69% in 2008 to 66% in 2013 (Wong, 2016, para. 2). As a high school college and career planning counselor for the last 17 years, the researcher has had the pleasure to work with thousands of teenagers through the decision-making journey as they make the first step into adulthood. For some senior families, namely those with parents who attended college, the decisions come easier and without missing vital details about the college process. However, seniors with parents who have no college experience, deciding what comes after high school is very overwhelming. First-generation college students face greater barriers in preparing for college than do their non-first-generation peers (Murphy & Hicks, 2006). First-generation college-bound seniors (and their parents) often have trouble pinpointing a postsecondary plan, do not have a realistic perspective of what it takes to earn a college degree, and select unrealistic career goals. The official U.S. Department of Education blog reported that nationally, only 18% of all ninth graders complete a four-year degree within 10 years (2015, para 1).

The current Missouri high school graduation requirements fall short of the typical four-year university admission requirements. Some high school students chose to do the bare minimum to earn their high school diploma rather than to prepare for their post-secondary education. Therefore, high school students without involved parental guidance or a college-bound support system miss out on the opportunity to proceed to a university

directly after high school. Therefore, future first-generation college students oftentimes need their high school administrators, counselors, coaches, teachers, and their college bound peers to supplement the knowledge it takes for them to get ready for college, not just graduate from high school.

Table 1

Missouri Requirements

Missouri High School Graduation Requirements vs. University of Missouri Requirements

4 credits of English	4 credits of English
3 credits of mathematics	4 credits of mathematics
3 credits of science	3 credits of science
3 credits of social studies, American government	3 credits of social studies
1 credit of physical education	2 credits-foreign language
1 credit of fine arts	1 credit of fine arts
1 credit of practical arts	ACT composite score: 24+ or
.5 credit of personal finance / .5 credit health	1160 SAT or sliding scale
8 credits of electives	Class rank, top half of class
24 to credits required	17 core units required

Note. Source: Missouri Department of Elementary and Secondary Education: High school requirements, University of Missouri Freshman Admission Requirements, 2016.

Educational Attainment Statistics

President Obama announced that the U.S. high school graduation rate reached a record 83.2% in 2014–2015 (Freking, 2016, p. 1) indicating a continuous steady rate across all racial and ethnic groups. However, the same report states national test scores continue to decline, which indicated a discrepancy that needs to be addressed. It was

reported in 2013 only 66% of new high school graduates enrolled in college (Wong, 2016). The government continues to financially support higher education and encourages the American youth to continue their level of education beyond high school. It was reported by the State Higher Education Executive Officers (SHEEO) that in 2015, state and local governments invested $90.9 billion in higher education, $88 billion went to support public higher education (SHEEO, 2015, p. 52).

To get a clearer picture of the long-term educational attainment of Americans, it was reported in *The Condition of Education 2015* that 91% of 25- to 29-year-olds in the country had received at least a high school diploma (NCES, 2015, p. 32). The same report also noted that in 2013, only 37% of females and 30% of males 25 to 29 years old had completed a bachelor's degree or higher (NCES, 2015, p. 20). Another statistic this researcher noticed was that it has been estimated by the Center of Student Opportunity that 30% of postsecondary students are low-income, first-generation students and it was predicted that 89% of these students will not earn a bachelor's degree six years out of high school (Rubinoff, 2016).

Undergraduate College Enrollment in the United States

In 1990, the undergraduate enrollment in America was estimated at 12 million students. By the fall of 2013, the undergraduate enrollment had increased by 46% to reach 17.5 million college students; 56% were female and 44% were male (NCES, 2015, p. 92). The enrollment at most college campuses has been steadily increasing, but the graduation rates have not improved at the same rate. Additionally, *The Condition of Education in 2015* reported that by 2024 the total undergraduate enrollment is projected to increase to nearly 20 million students (NCES, 2015, p. 92). Of the 20 million, roughly

6 million (30%) will be first-generation students, who might lag their non-first-generation counterparts (as cited in Opidee, 2015, para. 1). It is the responsibility of high school administrators, educators, and coaches to influence their students' long-term academic success by influencing the importance of their high school education and making it top priority, even if they do not go on to higher education. All young adults need to have a strong educational foundation, pursue challenging tasks, and enhance their accountability.

Defining the Traditional First-Generation Student

For this study, the researcher used "traditional" first-generation students, meaning recent high school graduates who attended college directly after high school graduation. All the participants in the study were within six years of high school graduation. The term *first-generation* means different things to different people. For this research study, the term refers to a college student whose mother and father both did not attend college (Nunez & Cuccaro-Alamin, 1998). However, some educators and the federal programs define a first-generation college student as a student whose parents attended college but never earned a bachelor's degree. In a longitudinal study, Toutkoushian and Smart (2001) explored whether different definitions of *first-generation* made a statistical difference. They found that utilizing data from 7,3000 college students the number of students defined as *first-generation* varied from 22% to as many as 77%. In sum, their research data indicated that regardless of the definition used, first-generation students enroll in college and graduate from college at a lower rate than their non-first-generation peers. In contrast, the label of "first-generation" may help some of these college students succeed because most colleges and universities have student success programs in place to provide additional assistance to first-generation students who self-identify as such.

First-Generation College-Bound High School Students—Prior to College

College students whose parents have no college experience (Darling & Smith, 2007, p. 203) are labeled as first-generation. Thus, it is assumed that a parent's level of education matters, even though the ways in which a parent's educational status influences their children have not been well researched. It is well known that first-generation students face greater barriers in preparing for college than their non-first-generation peers face (Murphy & Hicks, 2006). It was also evident in the literature that the academic barriers first-generation students face prior to attending college continue during their college experience. High school students with parents who did not attend college typically are not as academically focused on college during childhood and may lag their peers as they start high school. Lack of parental involvement with less academic support are associated with lower first-generation student performance (Ramos-Sanchez & Nichols, 2007). However, there are many prospective first-generation college-bound students who excel academically during high school, due in part to their intrinsic motivation.

Adolescence is a time when peer relationships set the direction of the high school experience and therefore may influence academic outcomes and goals. First-generation college-bound high school students typically follow the lead of their college-bound peers and seek trusted adults to assist them in the college process. First-generation students who are involved in extracurricular activities and athletics often get advice and assistance from their non-first-generation teammates and their college-educated coaches. Pascarella, Pierson, Wolniak, and Terenzini (2004) found there was a strong connection

between students involved in extracurricular activity and persistence to college graduation.

Non-First-Generation College-Bound High School Students—Prior to College

Students whose parents have college experience see college as a natural continuation of their academic and social experience, but college often constitutes a "disjunction" in the lives of first-generation students and their families (Engle & Tinto, 2009, p. 33). Non-first-generation students grow up with parents who attended college and passed down the importance of a college education. Whether they realize it or not, non-first-generation students have an easier path to get to college because college has been a realistic part of their family's conversation since they started school. Parents who have college degrees typically push their children to academically excel throughout their K–12 education, so to those children, going to college seems like a natural transition to adulthood and their future career. However, sometimes there are negative consequences of having college-educated parents. Some professional parents put too much pressure on their children to succeed academically, causing a great deal of anxiety to perform at the expected level. Nonetheless, college-educated parents typically guide their children to the importance of a solid education, so, by the time they enter high school, non-first-generation students are typically academically focused, ready to take college preparatory classes, and aimed for a college degree.

The Challenges of Being a First-Generation College Student

The first year of college is widely recognized as a crucial point for all students (Tinto, 1993) but the transition to college can be particularly difficult for at-risk populations. First-generation college students drop out of college at a much higher rate

than their non-first-generation peers. The NCES recently reported that less than 25% of first-generation students earn a bachelor's degree, compared to 68% of their non-first-generation counterparts (as cited in Opidee, 2015, para 2). Therefore, most colleges document their incoming first-generation college students as "at risk" of academic success and social adjustment. By asking the students to self-identify as first-generation college students, colleges are then able to provide those students with additional supports and resources so they are initially more comfortable in their new environment and are more likely to persist to graduation.

First-generation college students have a different type of foundation than their non-first-generation peers. Oftentimes, they are raised in a lower income bracket and with less academic focus during their childhood. They might lag their college-bound peers who have been raised since kindergarten with the notion they would go to college. Besides the academic differences that affect college acceptance and enrollment, the expense of a college education is a huge challenge for most first-generation students. All prospective college students encounter financial barriers; however, for most first-generation college students, the financial piece is the primary factor that determines whether they go to college or not. Family socioeconomic status also impacts the first-generation college students' college choice and degree attainment. Ishitani (2006) stated that a higher level of socioeconomic status has a positive effect on academic trajectories, social integration, and ultimately influences a student's college decision. When lower income, first-generation students go to college, they typically work more hours, take fewer credits per semester, live off campus, and do not participate in extracurricular activities (Pascarella et al., 2004). All of those factors make it more of a challenge to

establish the kind of campus relationships necessary that heighten the overall college experience. Another challenge noted in the literature is that oftentimes, a first-generation college student experiences imposter syndrome, a dissociative state in which he or she feels alienated on a college campus because they do not feel academically or socially confident (Jensen, 2004). First-generation students oftentimes are the first in their immediate family to leave the family home and live on a college campus, in an unfamiliar town and away from everything they know. Even when a first-generation student is academically strong, with goals and aspirations of a college degree, the adjustment to college life can be overwhelming. If the student does not have the internal locus of control, self-confidence, and the grit to persist through the everyday challenges, he or she may grow weary and drop out. For many first-generation college students, dropping out of college is an easy way out of an uncomfortable situation. The decision to do so is oftentimes accepted by their family without conflict. Conversely, first-generation students who have the personality traits to accept delayed gratification and have been taught to take on difficult challenges often reach their goal of a college degree, even if it takes five or six years to do so.

A study conducted by the Higher Education Research Institute at UCLA in 2011 pinpointed that first-generation students have lower retention and graduation rates compared to their non-first-generation peers because of their additional financial barriers (Concordia University, 2012). First-generation college students typically have less family money to spend on their education so they work during high school, which could affect their academic achievement, and obtain at least a part-time job while enrolled in college. Additionally, they typically take less credit hours per semester and lack the

academic preparation of all other students. The UCLA study revealed that 42% of students whose parents attended college graduated within four years, compared to only 27% of first-generation students (Woosley & Shepler, 2011, p. 700.) Additionally, six years after starting a degree program, 64% of non-first-generation students complete their degree, compared to 50% of first-generation students (Woosley & Shepler, 2011, p. 700). The review of literature indicated first-generation students have always had lower graduation rates and will probably remain a significant issue for colleges across the country to address.

Breaking Down Barriers for First-Generation College Students

Research showed first-generation students enroll and attend college, but they lack persistence to graduate with a degree. As Engstrom and Tinto (2008) wrote about first-generation college students in regards to their lower success rate, "access without support is not opportunity" (p. 46). Awareness of the disparity between first-generation graduation rates versus non-first-generation graduation rates is the most valuable part of establishing appropriate academic intervention strategies to help first-generation students obtain a degree. The *I'm First* national campaign of the Center for Student Opportunity (CSO), has the goal of recruiting successful first-generation students and graduates to use the "power of peer influence" to help new first-generation students get socially connected at their college has been successful at many colleges (Opidee, 2015, para. 8). The CSO was motivated to start the *I'm First* campaign because first-generation students drop out of college at 4 times the rate of their peers who have parents with college degrees. "*I'm First"* is an online community to support first-generation college students across the

country and those who support them “on the road to and through college (Rubinoff, 2016, para. 2.

In 2007, *Strive for College* merged with the CSO to help under-served high school students. With the aim to help remove some of the barriers to college access for underrepresented and disadvantaged students. Carter created the *Strive for College*, a national nonprofit technology-powered mentoring program partnering successful first-generation college students and college-bound high school students (Rubinoff, 2016). Carter, then a student at Washington University in St. Louis was driven to help other first-generation college bound students, after his journey as a first-generation student. Thereafter, in 2014, *UStrive* a virtual mentoring program was developed to further help assist high school students obtain quick and easy answers through face to face conversations, regarding preparation for college, applying to college, and the skills necessary to succeed during college. In the first three years, *UStrive* was reported to serve more than one-million high school students (Rubinoff, 2016).

Future first-generation college students must be taught the academic behavioral skills necessary to improve the likelihood they will be successful during college. The goal is for educators to teach and for students learn those skills while in high school so they are able to transition to college successfully. Beyond having a solid educational foundation and the determination to succeed, a successful first-generation student must be self-aware of their strengths and weaknesses and exhibit self-efficacy. Efficacy is the power to produce a desired result or effect through a person’s own actions (Efficacy, 2016). First-generation students must ask questions when they do not understand something and do extra to ensure they get the assistance they need. They need to be

taught, to be assertive to engage socially and academically to thrive in the college environment. Research indicates first-generation students lack the knowledge of college preparedness from parents and that additional assistance beyond the home is especially beneficial to first-generation female students (Nunez & Cuccaro-Alamin, 1998). First-generation students may have equal access to a postsecondary education, but there are many factors that decrease the likelihood of college success. Studies have shown that first-generation students have poor precollege planning and weaker career aspirations; lack academic support from their family, faculty, and peers; fear the college environment; and have poor study skills and habits (Murphy & Hicks, 2006, p. 6). To improve academic readiness of all future first-generation college students is crucial. It is the responsibility of high school educators to level the playing field and improve college preparatory skills for all students, especially for those students who have parents without college experience.

First-Generation Students and Community College

Oftentimes, first-generation students who go to college directly after high school start their postsecondary education at a nearby community college. The NCES (2012) reported that 47% of first-generation college students attend a community college directly after high school compared to 40% of non-first-generation college students (p. 108). There are many factors that make a community college a more direct route to postsecondary education for first-generation college students. Most of the time community colleges have open admission, which means they accept everyone who has earned a high school diploma. The “everyone is welcome” message encourages students who want a college education to enroll in college, even when they lack the financial

resources and academic foundation to succeed at a four-year university directly after high school. The price of tuition (estimated at $3,000–$5,000 annually) is much more affordable at a community college than at a university. Additionally, students who choose to attend a community college typically live at their family home, and do not have to pay the cost of room and board in a dorm at a four-year university (estimated at $6,000–$10,000 annually). For these reasons, earning an associate's degree is more attainable than aiming for a bachelor's degree right after high school graduation for many first-generation college students.

Unique to Missouri, is the A+ Scholarship Program, currently governed by the Missouri Department of Higher Education (DHE). Approximately 20 years ago, the Missouri Department of Elementary and Secondary Education created the Missouri A+ Tuition Incentive Program to take away the financial burden of a post-secondary education away from Missouri families. Therefore, the state funded A+ Program has inspired more Missouri high school graduates to enroll in Missouri community colleges or public technical schools directly after high school. Over the years, the Missouri A+ Program has enriched the high school student experience and has provided additional incentive for students to prepare for and attend college for all students who complete the A+ Program requirements. To earn the A+ Scholarship, graduates must attend a Missouri high school for at least three years and graduate with a minimum cumulative 2.5 GPA, 95% overall attendance, good citizenship, a proficient standardized math score, and compete 50 hours of tutoring younger students in their school district (Missouri A+ Scholarship Program, 2016). Once a high school student completes the Missouri A+ Program successfully, the A+ Scholarship covers the cost of tuition while he or she

attends any community college or public vocational school in the state, within four years after high school graduation. While enrolled in college, A+ Program graduates must be enrolled full-time, pursue an associate's degree, and keep a minimum 2.5 GPA. Many A+ Program students attend a community college, earn an associate's degree, and then transfer to a four-year university to complete a bachelor's. The researcher has been a Missouri A+ Program Coordinator for 17 years and has witnessed the benefits of the A+ Scholarship Program incentive first-hand. The community colleges and public vocational schools in Missouri are thriving and so are their students.

Table 2

National Statistics for College Attendance

	First-generation (%)	Non-first-generation (%)
Public 2-year	47	40
Public 4-year	24	35
Private for profit	20	11
Private not-for-profit	9	11

Note. National Center for Educational Statistics, 2012.

The Center for Community College Student Engagement (2015) has reported that 47% of first-generation students transfer to a four-year college helping bridge the gap to success for first-generation college students, who face more obstacles directly out of high school. Community colleges as well as universities all over the country have programs geared to help first-generation students with additional assistance to succeed. Connecting first-generation students to peer tutoring, career exploration opportunities, and student interest groups or recreational leagues is all a part of helping first-generation students succeed. First-generation college students automatically face unfavorable odds to

graduate from college, but when they have self-efficacy to utilize the resources available, they are more likely to thrive. All new college students have insecurities, even the most academically ready. As Engle and Tinto (2009) explained, it is imperative for everyone on the college campus to understand first-generation students are just unfamiliar with the college culture, and they just need experience with their peers to figure it out.

Table 3

College Completion Rates of First-Generation vs. Non-First-Generation

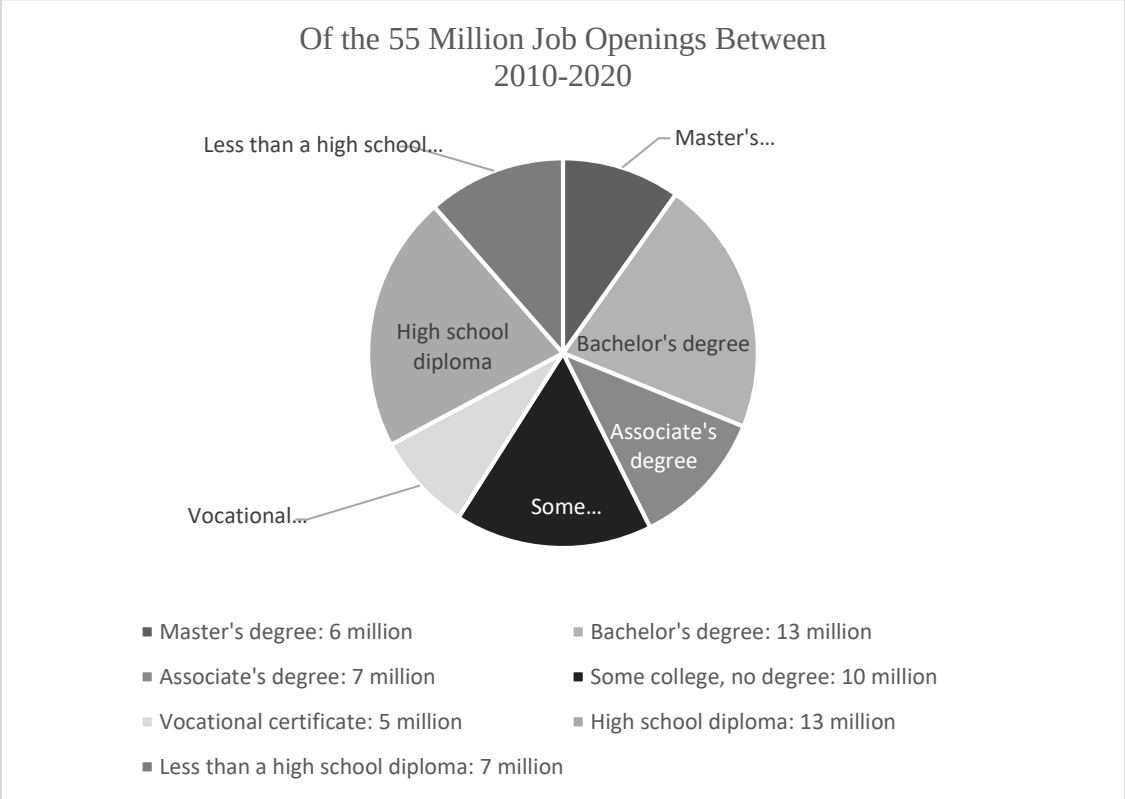
	First-generation (%)	Non-first-generation (%)
Attain bachelor's degree	15	39
Attain associate's degree	10	9
Attained certificate	15	9
No degree, still enrolled	15	15
Left without degree	44	31

Note. U.S. Department of Education, National Center for Educational Statistics, Beginning Postsecondary Students Longitudinal Study, 2004–2009.

The Importance of Earning a College Degree

There are four general categories of college degrees, all of which are beneficial to secure better employment opportunities and higher wage-earning potential. The Center of Education and the Workforce reported total employment in the United States will increase to 165 million jobs in 2020, but the college graduation rate will fall short by approximately five million workers (Justice, 2016, p. 10). The report went on to explain the future job market will require more adults to have college degrees. To further explain this demand, the report mentioned that in 1973 only 20% of jobs required a postsecondary degree, but by 2020 it is projected that 65% of American jobs will require

a college degree (Justice, 2016, p.11). The research from the Georgetown Center on Education and the Workforce analysis is clear: Of the 55 million job openings between 2010 and 2020, 26 million (47%) will require an associate's, bachelor's, or master's degree (Justice, 2016, p. 11).



F*igure 1.* Level of education required for current job market.

In 2014 the rate of employment for people with a bachelor's degree was 88.1%, compared to 63.7% for those who did not continue their education past high school graduation (NCES, 2015, p. 49). The NCES in 2015 stated that Americans who obtain a bachelor's degree earn twice the salary of non–high school graduates. For example, in 2013 an individual who held a bachelor's degree earned an average of 62% more than an individual without a high school diploma, $48,500 compared to $23,900 (NCES, 2015, p.

46.) Individuals without a high school diploma earn on average $30,000 (NCES, 2015, p. 43).

Table 4

2013 Estimated Average Monthly Earning in Missouri

Education attained	Monthly earnings
Less than high school diploma	$2,045
High school diploma	$2,821
Some college, no degree	$3,150
Associate degree	$3,367
Bachelor's degree	$4,801
Master's degree	$5,759
Doctoral degree	$7,033

Note. U.S. Census Bureau, Bureau of Labor Statistics, 2013.

Long-Term Outcomes of Former Varsity Athletes

After a comprehensive study of intercollegiate athletes, Pascarella and Smart (1991) reported athletes were significantly more likely than were nonathletes to complete their bachelor's degree and have significantly more positive social self-esteem nine years after initial college enrollment (p. 123). Additionally, the NCES published a *Statistics in Brief* in 2005 that examined the status of high school athletes 8 years after they earned their diploma (Carlson & Scott, 2005). Even though this study is dated, the findings were significant and inspired the present research. Utilizing data from the National

Educational Longitudinal Study of 1988 (NELS, 1988), the researchers used data from 9,840 10th graders in 1990 who were seniors in 1992 (Carlson & Scott, 2005). The study investigated former high school athletes' educational level, health status, and earnings in 2000. The brief found that former elite and varsity athletes were more than twice as likely as nonathletes to have any college education and to have earned a bachelor's degree within eight years. Consequently, they earned higher wages and were in better overall health. An equally important finding was that the level of participation attained, not the specific sport, made a significant difference in all three areas investigated.

The current research study was designed to focus on former elite and varsity high school athletes who participated on a school-sponsored team for four years; the study did not include athletes who only participated at the intramural or freshman level. The experience of a four-year commitment to develop into a varsity athlete should impact later-life outcomes more than for those who only participate at the recreational level of a sport.

A complementary study (Persico, Postlewaite, & Silverman, 2004) indicated there is also a positive correlation between former participants and their likelihood to earn significantly higher salaries at age 30. Also, Stevenson (2010) conducted a study that resulted in evidence that former high school athletic participants typically earn higher midcareer wages, indicating another significant long-term benefit of participating in high school athletics. Stevenson wrote:

> The fact that athletic participation (and only athletic participation among all extracurricular activities) is associated with higher adult wages suggests that sports have an especially strong correlation with a type of ability that is both an

> important determinant of wages and is not measured by other observable variables. (p. 286)

These studies, among others, indicated there is a set of characteristics and skills that serve former high school athletes well in the development of their careers, therefore as a researcher, the current study was designed to investigate the possible relationship between former high school varsity athletes and first-generation college student persistence to college graduation within six years after high school.

Summary

The literature review investigated topics regarding the focus of this dissertation study, the possible correlation between participation in high school varsity athletics and first-generation college student persistence to graduation. It covered previous research on (a) the impact of extracurricular activities during the high school experience, (b) the possible academic benefits of participating in varsity athletics, (c) the characteristics typically enhanced through athletics, (d) behavioral traits that may transfer to academic success in college, (e) first-generation college students, and (f) the importance of earning a bachelor's degree.

Prior research that explored the relationship between involvement with high school athletics and positive educational outcomes tend to report that students who participate on school-sponsored athletic teams increase their concentration to academic achievement (Lipscomb, 2007) while in high school. The researcher's investigation expanded that idea to first-generation college students, because they typically do not persist to college graduation at the same rate as non-first-generation students. The current study compared academic achievements of first-generation college students that

participated in varsity high school athletics and those who did not. The study also investigated the perceptions of former varsity athletics to find out what impact, if any, their participation in athletics had on their academic achievement in college, in the immediate transition to college and throughout their college experience.

Chapter Three: Methodology

Overview

First-generation college students encounter more obstacles and do not persist to college graduation at the same rate as non-first-generation students (Choy, 1998). The purpose of this study was to investigate ways in which participation in high school varsity athletics may impact academic persistence to college graduation for first-generation college students. Prior research has examined and correlated the relationship between participation in high school athletics and educational outcomes while the athletes were enrolled in high school. However, few studies have explored the long-term academic benefits of participation in high school athletics as it relates to college persistence and degree completion. Adding to the existing research on first-generation students that persist towards college graduation, this mixed-methods study analyzed quantitative demographic data from 76 first-generation study participants and qualitative data gathered from 14 former high school athletes. The quantitative analysis of this study primarily compared self-reported demographic data of first-generation college students who participated in high school varsity athletics, first-generation students who were high-school-only athletes, first-generation college athletes, and first-generation non-athletes. The qualitative focus group data explored the perceptions about the possible long-term academic benefits of participating in high school varsity athletics, of two unique cohorts of first-generation college students at SPU. Ultimately, the aim of this research was to discover the hidden academic benefits of participation in high school varsity athletics, for first-generation students.

The Research Site

The site for this study was Suburban Private University (SPU), a pseudonym for a private, midsized, liberal arts institution in the Midwest, with Presbyterian affiliation. SPU has one main campus and several satellite campuses with an approximate undergraduate student population of 8,300 domestic and international students, which includes students who earn bachelors, masters, and doctorate degrees. The first-year retention rate was 73% in 2015 with an overall graduation rate of 49% within six years (College Navigator, 2016, para. 3). The main campus of SPU, where the study was conducted offers 26 NCAA Division II sports and is located 40 miles outside of St. Louis, Missouri.

Limitations

All the participants in this study were selected based on their status as first-generation college students at SPU and had completed high school within the last six years. For this study the definition of a first-generation was a college student with a mother and father that did not attend college. Demographic quantitative data were gathered from first-generation second-year students and college seniors who completed the survey. Additionally, the focus group participants completed the demographic survey, self-reported participation in high school varsity athletics, and volunteered to participate in a focus group. Therefore, the results of the focus groups might be skewed in favor of the academic benefits of high school athletics. There were four limitations to this study:

1) This study did not deal with cause and effect.

2) Based on the small size of the volunteer participant sample at one institution, the results cannot be generalized to all first-generation students.
3) The demographic survey used to collect data was created for this study; therefore, it has not been proven reliable or valid.
4) Data gathered through the demographic survey focus groups are only as reliable and valid as the participants are truthful in their perceptions.

Threats to Validity

The process of validation occurs when evidence is analyzed and collected to support an inference for, "appropriateness, correctness, meaningfulness, and usefulness" (Fraenkel & Wallen, 2009). Internal and external relate to the trustworthiness of the findings of this study and whether the research captures what it was intended to measure.

The internal validity this researcher considered were: (a) selection bias, (b) researcher bias, (c) location, and (d) instrumentation and implementation. The first-generation participants were invited to participate from a convenience sample of students who were enrolled at SPU the fall semester of 2016. The threat was partially controlled by allowing members of the sample group to volunteer to participate without coercion or penalty. After years of working with college bound high school students and coaching, this researcher has formed her own opinions about the topic in this study. I was aware of my own bias and asked my committee to review the survey and focus group questions to avoid persuasion. To control the location threat, the online survey was given during a two-week window and the participants could respond to the questions at their convenience. Additionally, the focus group setting was the same for both cohorts, in a

study room in the campus library. To reduce the threat of instrumentation and implementation, the researcher asked the same questions to all participants, with only slight differences for the two cohorts. External validity occurs when the results of one specific study can be generalized to appropriate populations outside the study (Fraenkel & Wallen, 2009). This study was conducted at one university with two groups of participants, who had many similarities. This limited population did not allow for generalizations. The study was aimed to analyze self-reported quantitative academic data and to discover the perceptions of only the SPU first-generation students who volunteered to participate.

The Study Participants

This study only included undergraduate students who currently attend SPU and include both domestic and international students. First-generation students were targeted to participant in the study to expand upon the existing literature. The College Handbook (2016, p. 696) reported there are 7,986 degree seeking, under graduate students at SPU including multiple satellite campuses: 54% female, 46% male, 14% African American, 4% Hispanic, 3% multiracial, and 12% international students. Utilizing enrollment totals from the 2016 fall census, there were 4,723 total students enrolled at SPU. Of which 1,088 were traditional undergraduate domestic students, 893 applied for graduation during the 2016-2017 school year, and 219 (24.5%) self-reported their parents do not have a college degree (Study University, 2016).

All study participants were first-generation undergraduate college students at SPU during the fall 2016 semester. Two cohort groups were utilized in this study:

a) first-generation students who graduated from high school in 2015, who are under the age of 21, successfully completed their first year of college during the 2015-2016 school year, and returned to SPU for their second year of college in the fall of 2016.
b) first-generation college seniors, between the ages of 21 and 25 who graduated from high school since 2011, are enrolled in their final two terms of their bachelor's degree, and have applied for graduation during the 2016-2017 school year.

These cohorts were selected to participate in this study to reflect two check points in the college experience: after returning to college for a second year and during their last year of college. Self-reported demographic quantitative data was analyzed to compare educational outcomes for former high-school-only athletes, college athletes, and nonathletes. During voluntary focus group participation, athletic study participants were asked questions related to college transition and long-term academic outcomes. The study examined both the immediate effects of the transition to college and the possible long-term academic benefits of participation in high school varsity athletics for first-generation students at SPU.

Research Design

An invitation to participate was sent to all students in each of the predetermined cohorts via campus email. Potential participants were sent an adult consent form and the electronic link to the appropriate survey for their cohort. A total of 106 students voluntarily completed the demographic online survey within two weeks. Of the 106 first-generation demographic survey responses, 30 responses were not analyzed because the

participants did not meet the study's specific definition of a *first-generation college student*; 33 responses from second-year students and 43 responses from the seniors met the criteria and were utilized. The final survey question asked the participants if they participated in high school athletics, and, if so, at what level. Participants who self-identified as former high school varsity athletes, were asked to participate in a focus group with their respective cohort of athletic peers.

The first 10 former high school varsity athletes in each cohort that volunteered to participate were invited to attend their respective focus group two weeks later. During voluntary focus group participation, former high school participants were asked questions related to their college transition, their perceptions about what they gained through athletics, and the academic benefits of being a student-athlete in high school.

These cohorts were selected to participate in this study to reflect two check points in the college experience: returning to college for their second-year and during the last year of college. This study analyzed both the immediate effects of the transition to college and possible long-term academic benefits of participation in high school athletics. There were six focus group participants in the second-year college student cohort and eight participants in the senior cohort. The 14 focus group participants each received a $20 Dick's Sporting Goods gift card in exchange for their time and insight. The focus group conversations investigated the study's research questions and investigated the participants' thoughts about their first-generation college student status and explored their perceptions of the possible long-term academic benefits of participation in high school varsity athletes.

During the review of the literature and interactions with the study participants there were many definitions and interpretations of the term *first-generation college student.* For consistency, the definition used to describe first-generation college students in this study was one whose parents have no college experience (Darling & Smith, 2007, p. 203). Consequently, the demographic survey was used as a screening tool to determine if respondents did or did not meet this specific definition of first-generation. Hence, 30 survey responses that were originally collected were not analyzed because the participants did not meet this specific definition. Many participants indicated one of their parents went to college but did not earn a degree, and therefore they considered themselves as "first-generation college students."

In sum, 76 *first-generation* participants accepted the invitation to participate in this study and completed an anonymous electronic demographic survey. Reponses were gathered from 33 first-generation college sophomores and 43 first-generation college seniors, both athletes and nonathletes. The quantitate data points that were analyzed were high school GPA, college GPA, ACT scores, and the total number of semesters taken the seniors to earn their bachelor's degree. The quantitative analysis of this study primarily compared self-reported demographic data of first-generation college students who participated in high school varsity athletics, first-generation students who were high school and college athletes, and first-generation non-athletes.

The qualitative data gathered through two focus groups, explored the perceptions of first-generation college students who had participated in high school varsity level athletics. One focus group consisted of six returning SPU college sophomores, and the other had eight college seniors. Of the 14 focus group participants were first-generation

college students and former high school varsity athletes, six were also college athletes at SPU. This study explored the perceptions of first-generation students about the possible long-term academic benefits of participating in high school varsity athletics. This study added to the limited existing research on the long-term academic benefits of participation in high school varsity athletics.

Developing the Intervention

As a seasoned high school college and career planning counselor, the researcher conducted this study about first-generation college students because of the large discrepancy in college graduation rates between first-generation and non-first-generation college students. It was recently reported that less than 25% of first-generation college students earn a bachelor's degree within six years of high school graduation, compared to 68% of their non-first-generation counterparts (Opidee, 2015, p1.) This study explored the national statistic at the local level, at a thriving university in the metro St. Louis area.

In the review of the literature, Lipscomb (2007) reported students who participated on high-school-sponsored athletic teams typically increase their concentration to high school academic achievement. Therefore, this study was designed to explore whether former high school varsity athletes transfer their positive academic attributes to college in the pursuit of a bachelor's degree at SPU. This study analyzed demographic quantitative data as well as explored the qualitative data of the perceptions of former high school athletes. The analysis was done to determine what, if any, long-term academic benefits of participation in high school varsity athletics translate into academic success and persistence to earn a bachelor's degree for first-generation college students.

Null Hypotheses and Research Questions

$H_0$1: First-generation college students who participated in varsity high school athletics will not have a higher college grade point average than first-generation students who did not participate in high school athletics.

$H_0$2: First-generation college graduates who participated in varsity high school athletics will not persist to graduation in fewer semesters than first-generation graduates who did not participate in high school athletics.

$H_0$3: There will not be more first-generation college graduates who participated in high school athletics than first-generation graduates who did not participate in high school athletics.

Research Question #1: How do successful first-generation college students think their high school varsity athletic experience as preparation for their college success?

Research Question #2: What do successful first-generation college students report was their high school athletic teammates' and coaches' influence on their college success?

Research Question #3: Do first-generation former varsity athletes see their athletic experience as influencing their choice of college major?

Research Question #4: What themes emerge in the data of these persistent first generation former athletes?

Data Collection and Analysis Procedures

This study used mixed methodology to triangulate the quantitative and qualitative findings. Two unique cohorts participated in this study to reflect two check points in the college experience after a successful first year and during the last year of college. The

study analyzed quantitative demographic data from an anonymous online 20-question survey and qualitative descriptive data from two 1-hour-long session focus groups. There were 76 demographic surveys collected and 14 former high school athletes who participated in the focus groups. The researcher used the survey as a screening tool to identify first-generation college students who met the definition of *first-generation* and to secure former high school varsity athletes who volunteered to participate in the focus groups. The focus group volunteers completed the demographic survey, were also self-reported former varsity high school athletes, and volunteered to participate in a focus group.

To test for significant statistical differences, a two-tailed *t*-test was used to analyze the quantitative data from the demographic survey responses. The goal of the focus groups was to discuss their first-generation status and their perceptions of the possible academic benefits they gained through participation in high school varsity athletics. Participants were asked to describe why they had been successful, when so many other first-generation college students drop out. From the qualitative data from the focus groups, emerging themes were investigated and descriptive analysis was utilized.

Instrumentation

After an exhaustive literature review regarding evidence of academic benefits of participation in high school athletic, the researcher developed the survey questions and focus group questions. Whitley and Pressley (1995), Hadfield (2007), and Lumpkin and Favor (2012) used GPA, ACT scores, and graduation rates for data points to make overall comparisons between athletes and nonathletes. Therefore, the study's qualitative data points were: final high school GPA, college GPA, highest ACT score, and seniors were

asked to disclose the number of college semesters it has taken for them to earn their bachelor's. The demographic survey allowed for collection of background information on the study participants and who met the predetermined definition of first-generation college student and were age appropriate for the two unique cohorts: (a) traditional second-year students that graduated from high school in 2015 and (b) college seniors who are on track to graduate from college within six years of completing high school. Study results were tabulated based on participants' responses to specific questions about their high school foundation as well as their college status.

Table 5

Demographic Survey Questions for Second Year College Students

Question	Response choices
Are you between the ages of 18 and 21?	Yes or No
What is your gender?	Male or Female
Did you graduate from high school in 2015?	Yes or No
Did you graduate from the metro St. Louis area?	Yes or No
Did both of your parents graduate from high school?	Yes or No
Did your mother attend college directly after high school?	Yes or No
Did your father attend college directly after high school?	Yes or No
Do you have at least one older sibling?	Yes or No
If you have an older sibling, did he/she go to college?	Yes or No
Did you live on the SPU campus as a freshman?	Yes or No
What is your declared major?	Drop-down menu
What is your projected year of college graduation?	2018, 2019, 2020, 2021
What was your final high school grade point average?	2.0- 2.5, 2.5- 3.0, 3.0- 3.5, 3.5- 4.0, over 4.0

continued

Question	Response choices
What is your cumulative GPA at SPU after 1 year?	2.0- 2.5, 2.5- 3.0, 3.0- 3.5, 3.5- 4.0, over 4.0
While in high school, what was your highest ACT score?	19- 22, 23- 27, 28- 31, 32+
Have you been academically successful at SPU?	Yes or No
As a first-generation college student, briefly explain why you have been academically successful or not academically successful at SPU?	Open-ended responses
While in high school did you participate on any athletic teams?	Yes or No
If you participated in high school athletics, what sports?	Drop-down menu
If you participated in high school athletics, please indicate to what extent?	Freshman year only, JV, Varsity, Elite (MVP, captain, state qualifier)
If you participated in athletics, would you be willing to participate in a 1-hour focus group?	Yes or No
If you are willing to participate in a focus group, please leave your campus e-mail address.	

Table 6

Demographic Survey Questions for First-Generation Seniors

Question	Response choices
Are you between the ages of 21 and 25?	Yes or No
What is your gender?	Male or Female
Did you graduate from the metro St. Louis area?	Yes or No
Is SPU the only college you have attended?	Yes or No
Did both of your parents graduate from high school?	Yes or No
Did your mother attend college directly after high school?	Yes or No
Did your father attend college directly after high school?	Yes or No
Do you have at least one older sibling?	Yes or No
If you have an older sibling, did he/she go to college?	Yes or No
What is your declared major?	Drop-down menu
When will you complete your bachelor's degree?	Dec. 2016, May 2017, Summer 2017, Dec. 2017, 2018
What year did you graduate from high school?	Before 2010, 2010, 2011, 2012,2013, 2014
What was your final high school grade point average?	2.0- 2.5, 2.5- 3.0, 3.0- 3.5, 3.5- 4.0, over 4.0
What is your cumulative GPA at SPU?	2.0- 2.5, 2.5- .0, 3.0- 3.5, 3.5- 4.0, over 4.0
While in high school, what was your highest ACT score?	19- 22, 23- 27, 28- 31, 32+
How many total semesters will take for you to earn your bachelor's degree?	Less than 8, 8, 9, 10, 11, 12, more than 12
As a first-generation college student, briefly explain why you have been academically successful at SPU?	Open-ended response
While in high school did you participate on any athletic teams?	Yes or No
If you participated in high school athletics, what sports?	Drop-down menu
If you participated in high school athletics, please indicate to what extent?	Freshman year only, JV, Varsity, or Elite (MVP, captain, state qualifier)
If you participated in athletics, would you be willing to participate in a one-hour focus group?	Yes or No
If you are willing to participate in a focus group, please leave your campus email address.	

Table 5

Focus Group Questions for Former High School Athletes

Questions
In what ways, did participating in high school varsity athletics help you succeed in high school?
What did you gain by participating in high school sports?
Looking back, how did you think your experience as a high school varsity athlete changed you?
Do you think you'd be different if you did grow up in athletics?
What negative aspects of high school athletics did you experience?
In what ways did your high school teammates and coaches influence your decision to go to college?
Was there ever a mention that you better do good in school, for you to participate in your sport?
How do you think your high school student-athlete experience prepared you academically for college?
Who inspired you the most to pursue a college education?
It's my understanding you are all first-generation students. What does that mean to you?
Around the time, you were deciding to go to college, what made you believe you would be successful?
The fact that you are first-generation college students, was that part of the conversation with your parents, when you were deciding to go to college? Siblings?
I defined *athletic identity* and then asked, how does your *athletic identity* effect you at SPU?
Did your *athletic identity* play any role in bringing you to SPU?
Do you think your *athletic identity* influenced your choice of college major? Career choice?
I defined *growth mind-set* and then asked, what are your thoughts about the growth mindset philosophy as it relates to your past athletic experience and your academic success?
As a first-generation college graduate, what will graduation day feel like for you? Your parents? Family?

Table 6

Focus Group Questions for College Athletes

Would you have attended SPU without your involvement in sports?
Was earning an athletic scholarship at SPU your main incentive to attend SPU?
Do you feel your athletic participation at SPU is an extension of high school athletics or has it been completely different? Why?
That concludes my questions. Does anybody have anything to add to our discussion?

Exit-slip question. After the focus group, focus group participants were given an "exit slip" with one open ended question on it: How has your participation in high school sports impacted your success at SPU?

Summary

This mixed-methods study analyzed quantitative demographic data and qualitative data from two unique cohorts: (a) current second year first-generation college students at SPU and (b) rising first-generation college graduates at SPU. The data analyzed included self-reported demographic data gathered from an anonymous online survey and qualitative descriptive analysis of two focus groups of former high school athletes. The study discovered ways in which participation in high school athletics positively impacted the participants' academic outcomes as they persist towards college graduation. The aim of the study was to analyze quantitative data as well as explore the qualitative data of the perceptions of former high school athletes to determine what, if any, were the long-term academic benefits of participation in high school varsity athletics for first-generation college students at SPU. In Chapter Four, the results of the study will be revealed in detail.

Chapter Four: Results

Overview of Results

The results of this mixed-methods study are divided into quantitative and qualitative analysis. There were two unique Suburban Private University (SPU) student cohorts in this study: (a) first-generation returning second-year students and (b) first-generation college seniors. This study included quantitative analysis of the demographic data from 76 first-generation college student anonymous survey responses and quantitative data from 14 former high school varsity athletes (including six college athletes at SPU) who participated in focus groups. This research design discovered ways in which participation in high school athletics positively impacted first-generation college students while enrolled in college as they persist toward graduation. The quantitative results have been summarized in tables and figures in this chapter. Also in this chapter are tables to summarize the axial and open coding of the themes that emerged. Themes were developed from the focus group conversations, so direct quotes are part of the descriptive analysis at the end of this chapter.

The immediate transition to college is typically a difficult adjustment for new college students, especially for first-generation students at a four-year university. Murphy and Hicks (2006) identified first-generation students as less academically prepared and "at-risk of being academically, socially and economically left behind non-first-generation students, even when their motivation and academic credentials are equal" (p. 3). The purpose of this study was to investigate the possible ways in which participation in high school varsity athletics may positively impact academic success of first-generation college students at SPU. This study primarily investigated the difference

between first-generation students who participated in high school varsity athletics and their non-athletic counterparts. The prior research literature and the results of this study show that participation in high-school-sponsored sports seems to enhance the life skills and transferable academic traits for those who participate in varsity sports while in high school. Findings from this study suggested long-term academic benefits for first-generation college-bound students who participate in high school varsity athletics prior to their transition to college.

Summary of Demographic Survey Participants

The quantitative data were obtained from two unique cohorts of first-generation college students at SPU: current second-year students and college seniors who have applied for college graduation during the 2016-2017 school year. In sum, 76 first-generation participants accepted the invitation to participate in this study and completed an anonymous electronic demographic survey. Reponses were gathered from 33 first-generation college sophomores and 43 first-generation college seniors, both former high school athletes and nonathletes. The quantitative data points analyzed were (a) cumulative final high school GPA, (b) current college GPA, (c) highest composite ACT score, and (d) the number of semesters it has taken to complete their bachelor's degree. The quantitate analysis of this study primarily compared demographic data of students who were high school varsity athletes, students who are currently college athletes, and first-generation students who were not involved in high school athletics.

Summary of SPU sophomore participants. There were 33 first-generation second-year students who participated in this study. They were all 2015 high school graduates and returned to SPU for their second year during the fall of 2016. Most of the

participants projected they would earn their bachelor's degree in 2019. In this cohort, there were 23 females and 10 males, 26 who lived on-campus during their freshman year, and 17 who graduated from high school outside the geographic area. Of these first-generation college sophomores, seven specified that both of their parents do not have a high school diploma. Additionally, 19 participants revealed they have older siblings; of those, 14 enrolled in college directly after high school with mixed levels of success. Of the 33 first-generation sophomore participants, 23 indicated they had participated in high school athletics at some point, and 10 had not been involved in high school athletics. Most notably, there were 17 participants who competed in a variety of varsity high school sports and 10 of the survey participants were also college athletes at SPU.

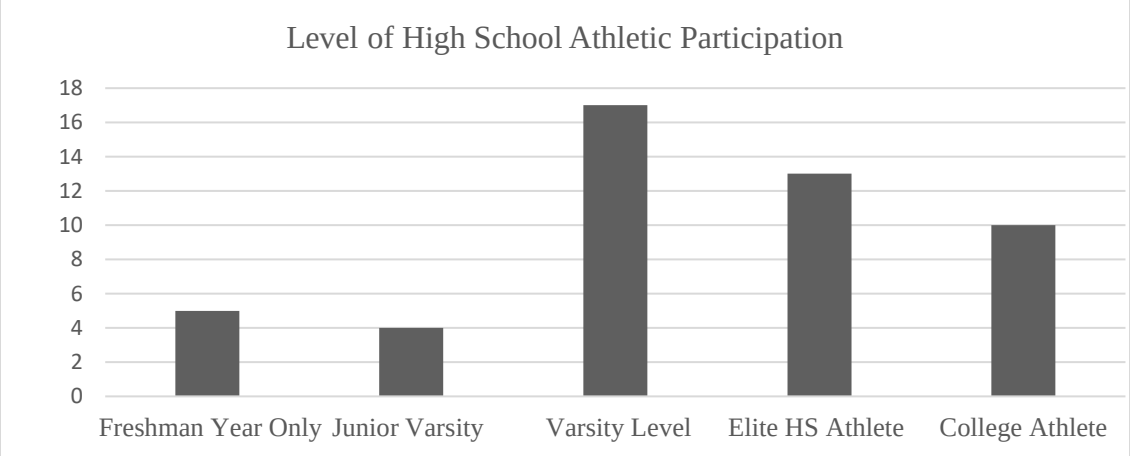


Figure 2. Level of high school athletic participation.

The number of first-generation college sophomores (33 total) at each level of athletic participation.

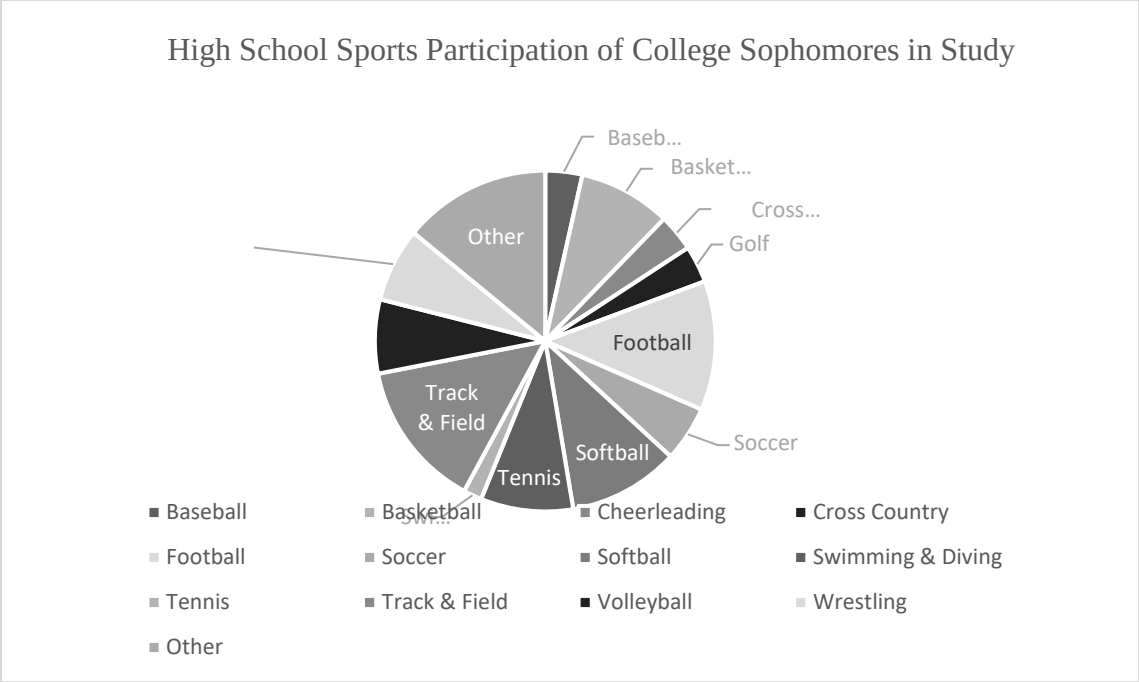


Figure 3. High school sports participation of first-generation college sophomores.

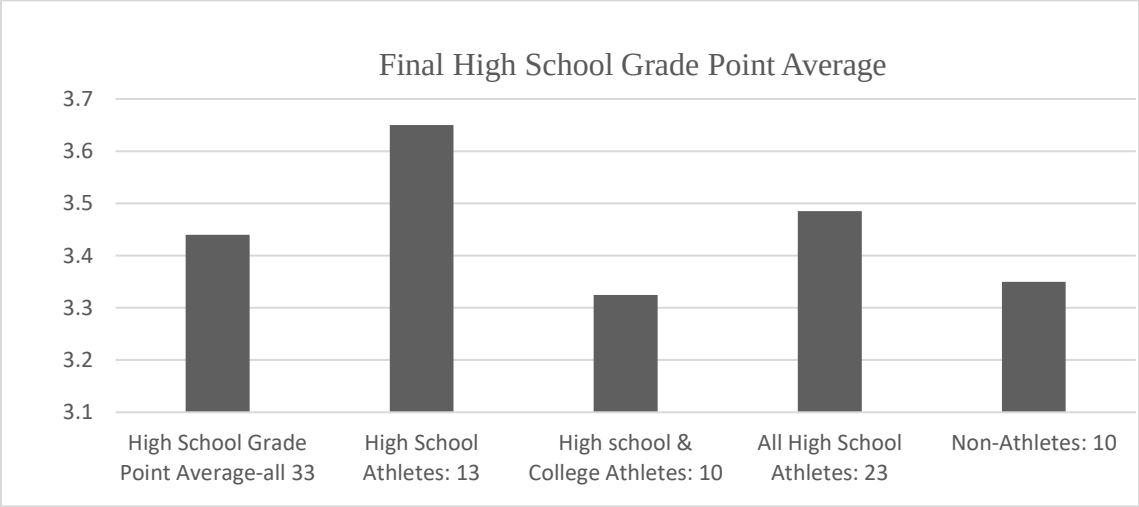


Figure 4. Final high school GPA of the 33 first-generation college sophomores.

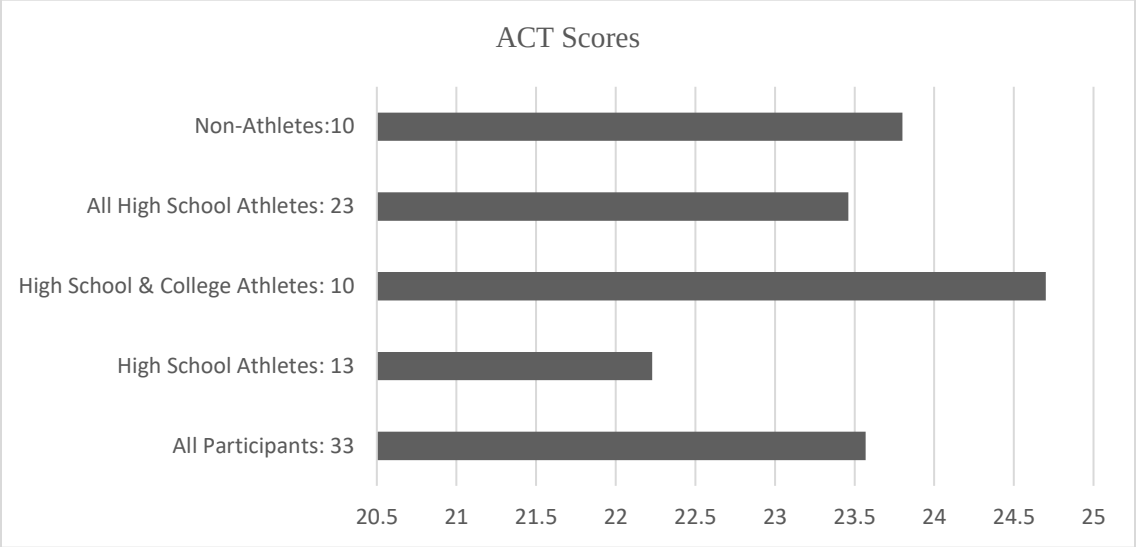


Figure 5. Highest ACT score of first-generation college sophomores in the study.

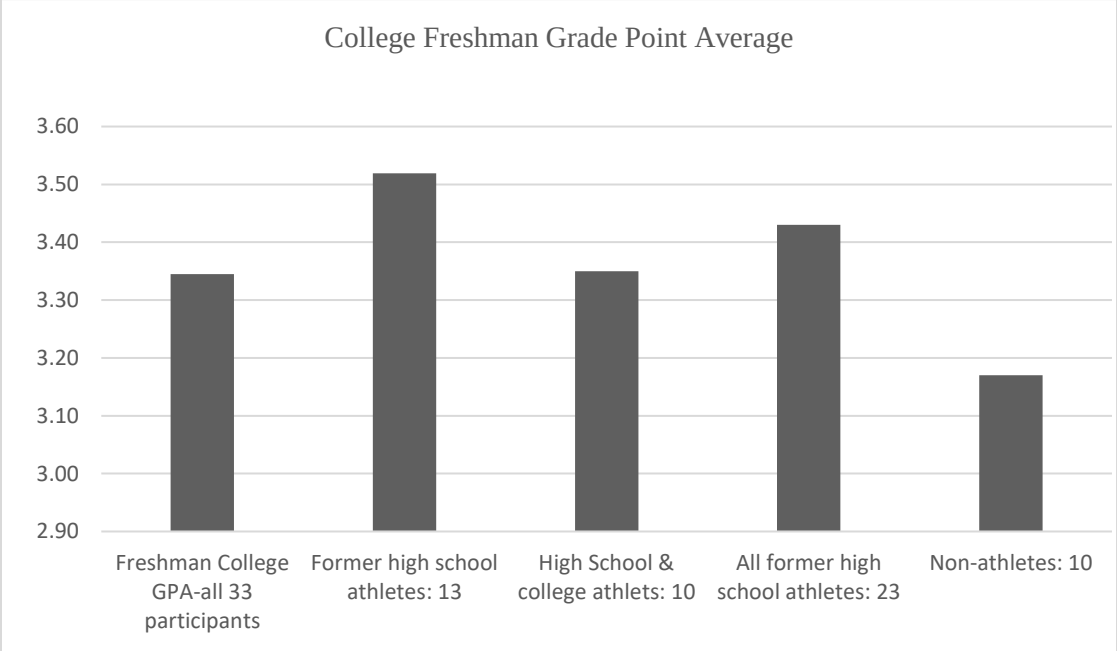


Figure 6. College GPA after the first two semesters at SPU.

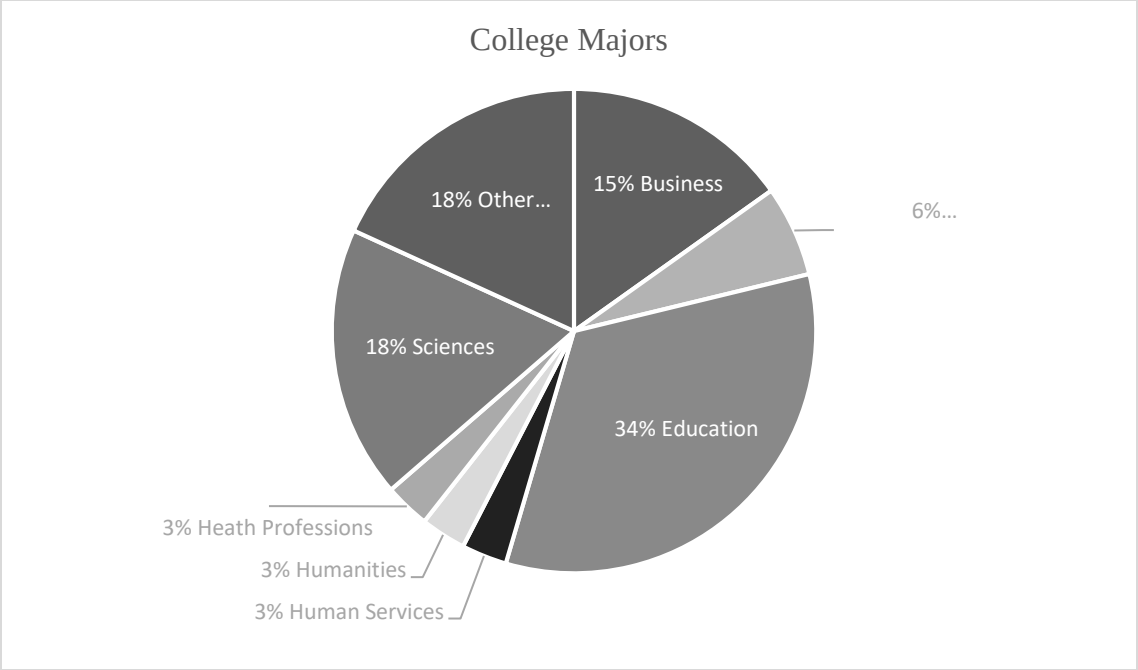


Figure 7. Choice of majors for first-generation sophomores in this study.

During the focus group conversation, one of the questions was, *Do you think your athletic identify influenced your choice of college major?* One of the sophomore study participants on the SPU wrestling team, explained, 'when I was younger, my coach was actually a physical therapist and since I got injured quite a bit, he showed me the rehabilitation process' and 'going through as much physical therapy as much as I did, over time, I just figured this might be a good career path for me too. I'm enjoying it.' One of the female participants described how she started college as an exercise science major, when she was an athlete, but recently switched to elementary education, after she got hurt and stop participating in athletics. However, she stated that as a future teacher, she hopes 'to also coach kids, the way I was coached growing up.'

Summary of SPU senior participants. There were 43 first-generation college seniors who participated in this study. They were between the ages of 21 and 25, graduated from high school since 2011, and are on target to graduate with a bachelor's

degree within the next year. In this cohort, there were 25 females and 18 males, 20 from the metro area and 23 from outside the geographic area. Of these 43 first-generation college seniors, 11 specified that both of their parents do not have a high school diploma. Additionally, 22 participants revealed they have older siblings, and of those, 14 enrolled in college directly after high school. Of the 43 first-generation seniors, 32 indicated they had participated in high school athletics at some point, and only 11 had not participated on a high school athletic team. Most notably, there were 25 who competed at the varsity level in a sport (or sports) all four years of high school and 15 who were college athletes at SPU.

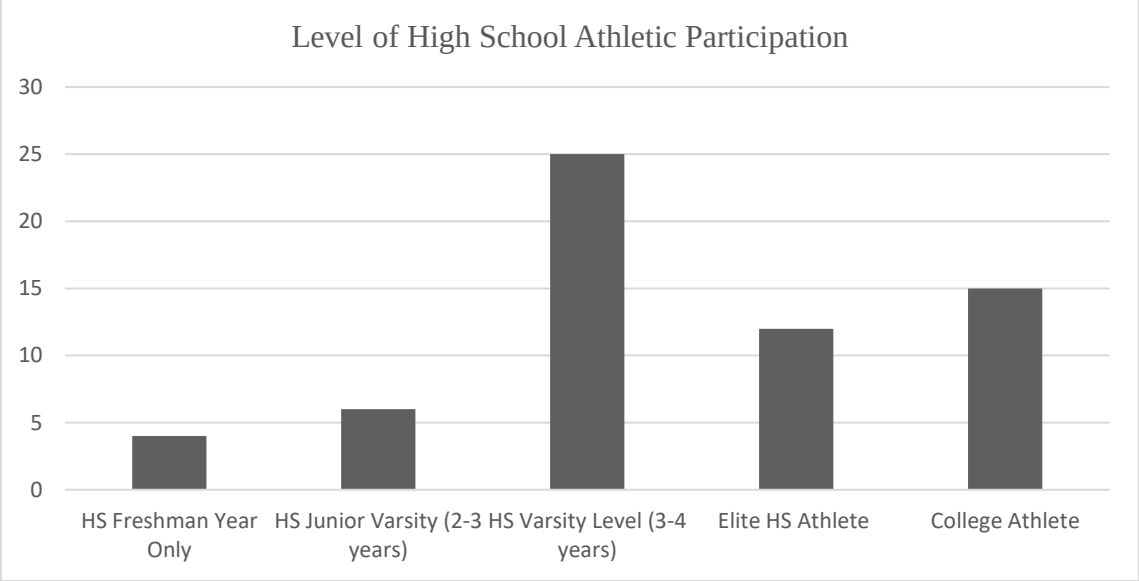


Figure 8. Athletic participation for the 43 first-generation college seniors.

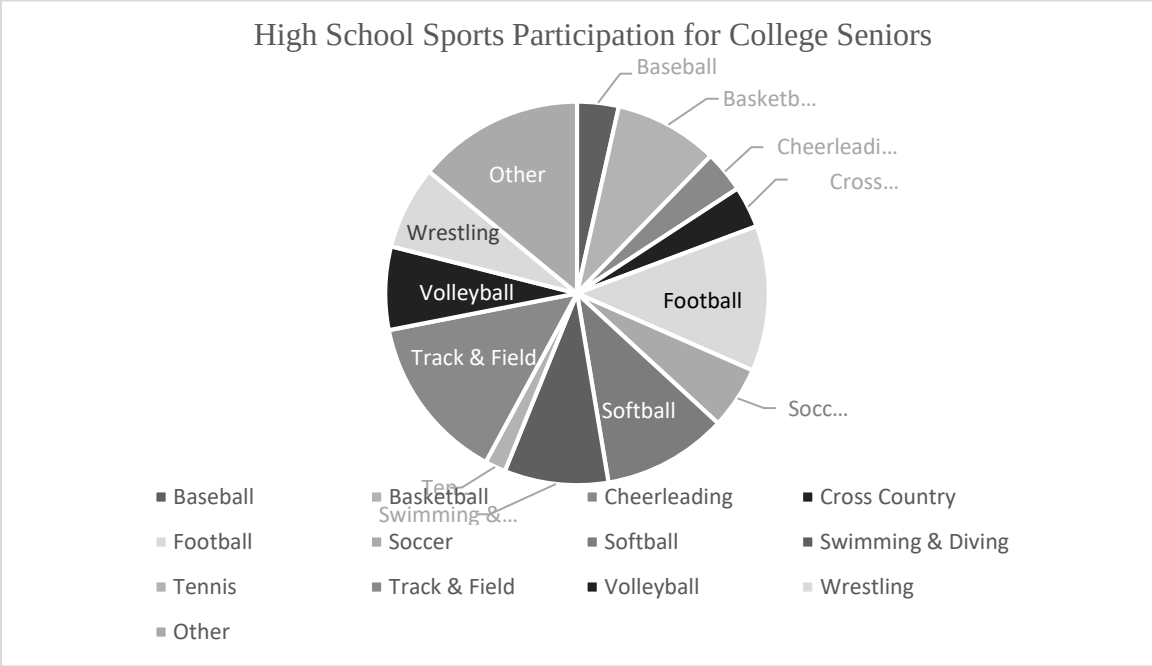


Figure 9. High school sports participation of first-generation college seniors.

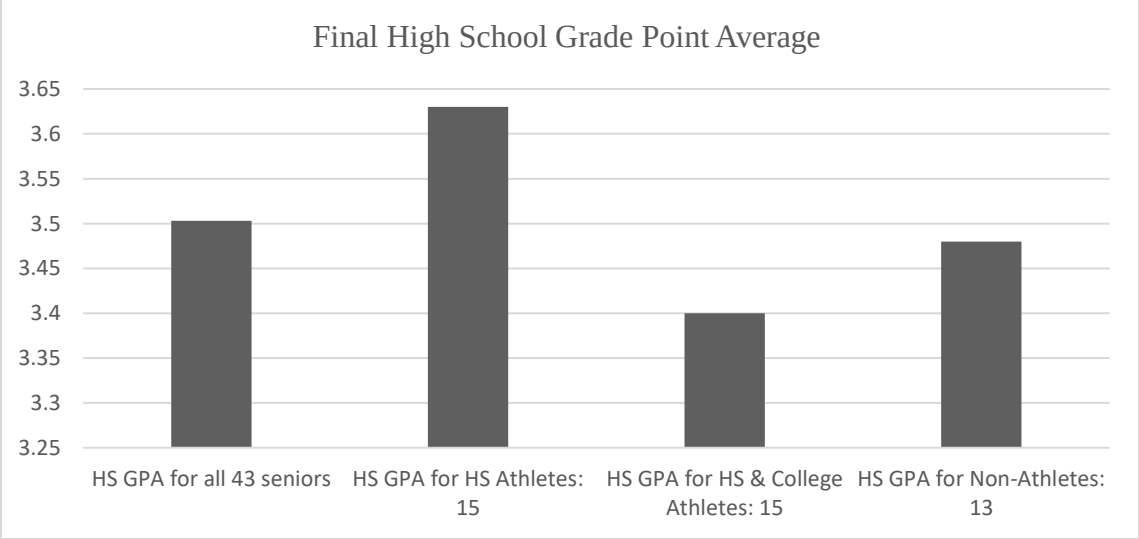


Figure 10. Final high school GPA of the first-generation college seniors.

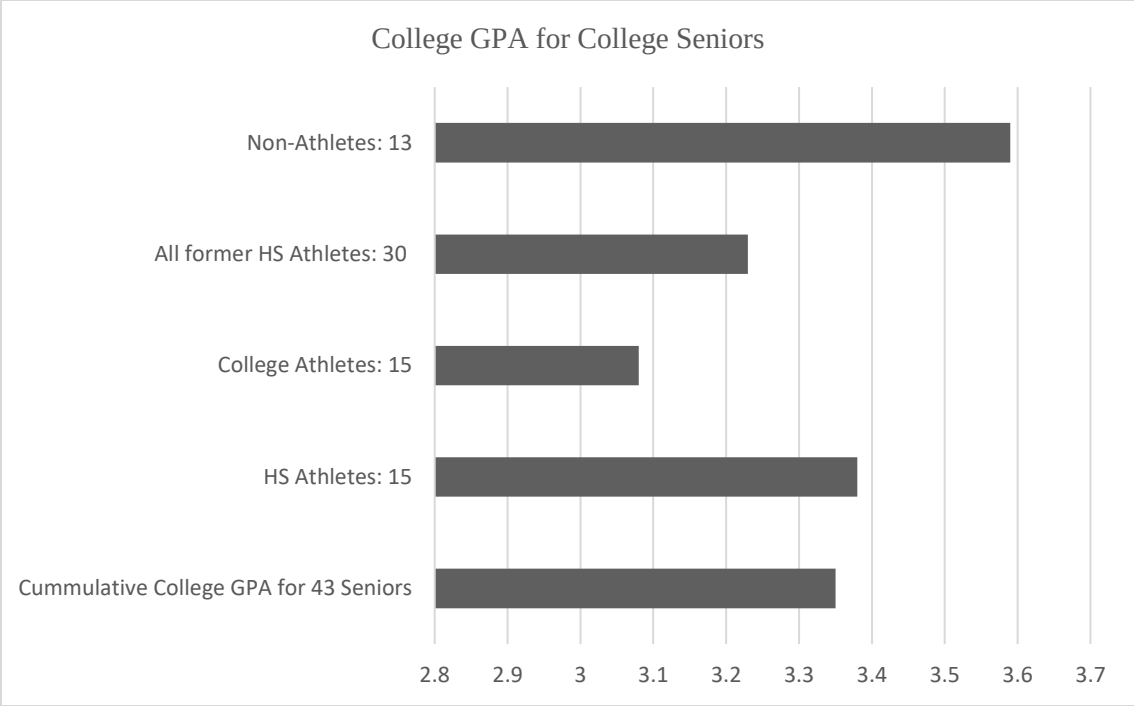


Figure 11. Cumulative college GPA for first-generation college seniors in this study.

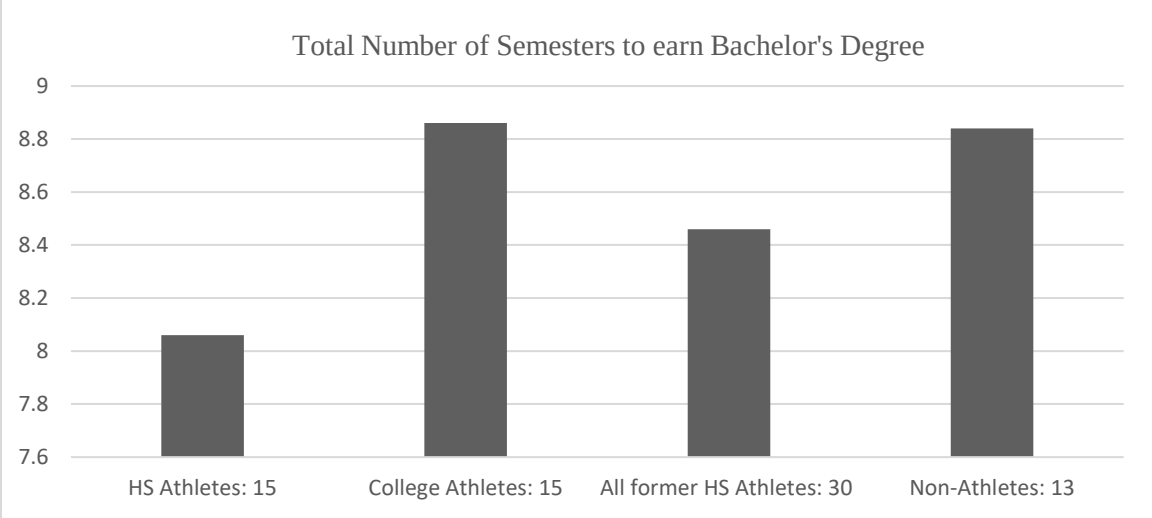


Figure 12. Total number of semesters to complete bachelor's degree.

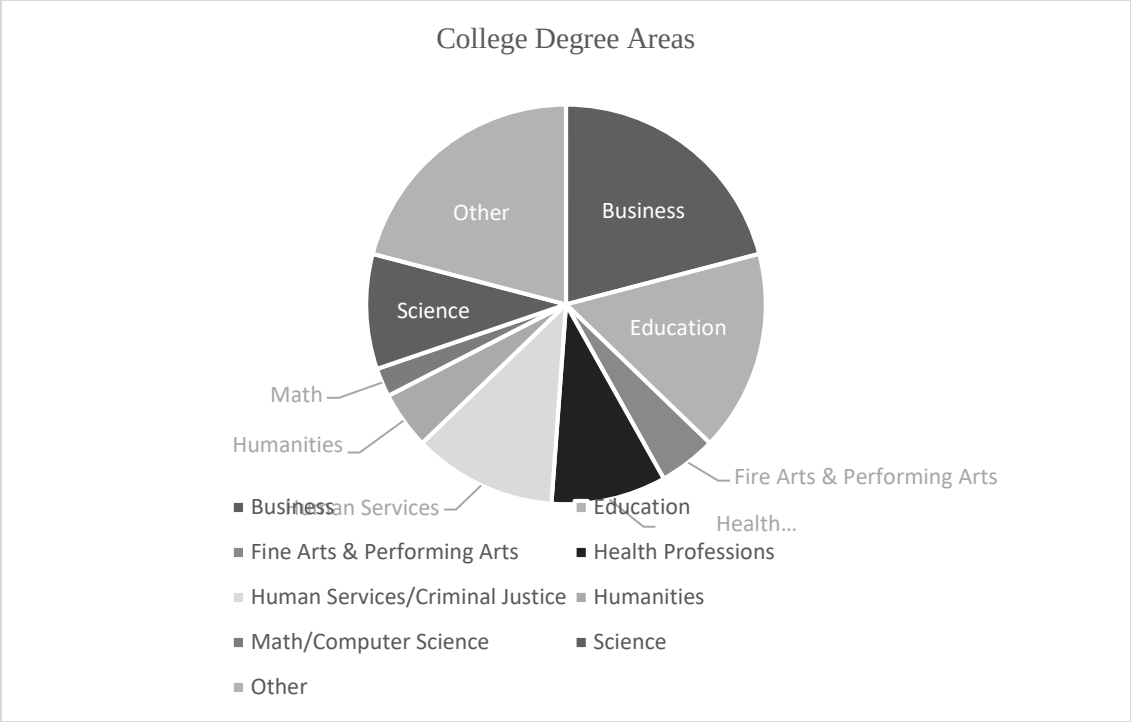


Figure 13. College degree programs of first-generation college seniors.

In the focus group conversations, one of the questions asked to the college senior group was, *Do you think your athletic identity influenced your choice of college major?* Only a few responses came from this question, with one student saying 'through sports, I was always told by my coaches that I would make a good coach someday.' He went on to describe the link between his athletic identity to his future career path, 'I'm student teaching now and looking for a teaching job next fall, hoping I'll be able to coach, too.' The other senior participants joked that they did not see the link between their athletic identity and their career focus, but expressed that they would continue to enjoy athletics as a hobby as they go out to their career areas in biomedical sciences, business, criminal justice, and global studies. In the focus group, there were two first-generation students from Germany. With one male and one female, who have attended SPU on athletic scholarships. They did not know each other until they joined the SPU swimming and

diving team five years ago and have become great friends. They both laughed as they explained, ‘we don’t really have college sports in Germany’ so they each decided to pursue a college education in the United States through their swimming and diving talent. ‘It’s a lot harder to go to college in the U.S. but with athletics, it made it possible.’ They said they will both be finished swimming after this season and will be graduating with a bachelor’s degree in May. After graduation, they both plan to become graduate assistants at SPU while earning their master’s degrees, and then return to Germany in a couple years. In sum, their college majors were not tied to their athletic identity but their free college education was linked.

Null Hypotheses Results

$H_0$1: First-generation college students who participated in varsity high school athletics will not have a higher college grade point average than first-generation students who did not participate in high school athletics.

To test for statistically significant differences between the GPA of former high school varsity athletes and nonathletes, a two-tailed t-test with a 0.05 significance level was utilized with the Microsoft Word Excel statistic formulas. GPA data points were collected from the anonymous survey and tested for a statistical difference in cumulative GPAs of first-generation college students after the first two semesters of college.

Table 7

College GPA After Two Semesters at SPU

College GPA Freshman Year	High School (only) Athletes	Nonathletes in High School
Mean	3.519	3.175
Variance	0.108974359	0.250694444
Students	13	10
Hypothesized Mean	0	
df	15	
T stat	1.882079983	
P(T <= t) one-tail	**0.03968648**	
t Critical one-tail	1.753050356	
P(T<=t) two-tail	0.07937296	
T Critical two-tail	2.131449546	

Since the *p* value is less than .05, there was a significant statistical difference between the two cohorts. Therefore, the findings allow the researcher to reject the null, in support of the alternate. In sum, former high school varsity athletes had a significantly higher college GPA after two semesters of college than those who did not participate in high school athletics. However, adding the 10 college athletes to the cohort of high-school-only athletes, there was no significant difference. The cumulative freshman college GPA of all 23 former high school athletes was 3.44, which was not significantly different than the 3.175 GPA earned by the 10 nonathletes.

The researcher also tested for statistically significant differences in college GPAs of the senior cohort, but found nothing remarkable. Again, a two-tailed *t*- test with a 0.05 significance level was used. To summarize, during the senior year of college, the 30-former high school varsity athletes (including the 10 college athletes) earned an average cumulative college 3.23 compared to an average 3.59 GPA for the 10 seniors were not high school athletes. The 15 high-school-only athletes earned a 3.38 GPA.

The researcher also separated male and female data in each cohort and did not discover any statistical significant findings. However, expanding the scope of the first hypothesis, there was another significant difference between the first-generation college sophomores final high school GPA comparing those who participated in varsity athletics to those who were nonathletes.

Table 8

Final High School GPAs of College Sophomores, Athletes vs. Nonathletes

High school GPA	High school varsity Athletes	High school nonathletes
Mean	3.65	3.35
Variance	0.088942308	0.155555556
Students	13	10
Hypothesized Mean	0	
Df	16	
T stat	2.030281165	
P(T<=t) one-tail	**0.02964657**	
T Critical one-tail	1.745883676	
P(T<=t) two-tail	0.059	
T Critical two-tail	2.119	

Since the *p* value is less than .05, there was a significant statistical difference between the two cohorts. In sum, the former high school varsity athletes' high school GPA of 3.65 was significantly higher than the 3.35 of those who did not participate in high school athletics. However, when the 10 college athletes were added into the cohort of high-school-only athletes, there was no significant difference. In total, the 23 former high school athletes had a mean high school GPA of 3.485 and the 10 nonathletes had a mean GPA of 3.35, indicating no significant statistical difference.

As the researcher continued testing for significant statistical differences in final high school GPAs with the senior cohort, nothing remarkable was found. In sum, the 15 high-school-only athletes earned an average 3.63 GPA, the 15 college athletes earned an

average 3.4 GPA, and the 13 non-athletes finished high school with a 3.48 GPA. Combined, all 30-former high school varsity athletes completed high school with a slightly higher final high school 3.515 GPA compared to a 3.48 GPA of the nonathletes.

$H_0$2: First-generation college graduates who participated in varsity high school athletics will not persist to graduation in fewer semesters than first-generation graduates who did not participate in high school athletics.

To test for statistically significant differences between the number of college semesters it took for former high school varsity athletes and nonathletes to persist to college graduation, a two-tailed *t*-test with a 0.05 significance level was used. Utilizing self-reported data points from the anonymous survey, the researcher analyzed the number of semesters it took for first-generation college seniors to earn a bachelor's degree. In sum, the 15-former high-school-only athletes graduated in 8.06 semesters, the 15 college athletes in 8.86 semesters, and 13 nonathletes in 8.84 semesters. After comparing the high-school-only athletes 8.06 and the nonathletes 8.84 with the two-tailed *t*-test, the *p* value was 0.064, higher than the 0.05 significance level, therefore no statistically significant finding was indicated. The researcher fails to reject the null hypothesis that high school varsity athletes do not persist to college graduation in fewer semesters than their nonathletic first-generation college counterparts.

Table 9

Semesters to Earn a Bachelor's Degree for HS Athletes and Nonathletes

	High-School-Only Varsity Athletes	Nonathletes
Mean	8.066	8.846
Variance	1.209	2.141
Students	15	13
Hypothesized Mean	0	
Df	22	
T stat	-1.573	
P(t<=t) one-tail	**0.064**	
t Critical one-tail	1.717	
P(T<=t) two-tail	0.129	
T Critical two-tail	2.073	

However, there was a statistically significant difference between the number of semesters it took for former high-school-only varsity athletes to graduate compared to college seniors who participated in college athletics at SPU. As a possible explanation, college athletes typically take fewer classes during the semester of the athletic season or utilize a redshirt freshman year to assure five years of eligibility, to be able to balance the demanding student-athlete schedule.

Table 10

Number of Semesters to Earn a Bachelor's Degree for Athletes

	High-School-Only Varsity Athletes	College Athletes At SPU
Mean	8.066	8.866
Variance	1.209	1.838
Students	15	15
Hypothesized Mean	0	
Df	27	
T stat	-1.774	
P(t<=t) one-tail	**0.043601845**	
t Critical one-tail	1.703	
P(T<=t) two-tail	0.087	
T Critical two-tail	2.051	

H_03: There will not be more first-generation college graduates who participated in high school athletics than first-generation graduates who did not participate in high school athletics.

To analyze this hypothesis, the researcher utilized a Two Proportion *z*-test from data points gathered from the anonymous online survey. Of the 43 total first-generation senior participants, 30 indicated they had been high school varsity athletes (P1) and 13 that were not high school athletes (P2). The null hypothesis was P1=P2. Based on the sample size the researcher calculated a *p value* of .00012 < .01. This evidence showed P1 is significantly bigger than P2 so the researcher can reject the null hypothesis in support of the alternate. In sum, in the population first-generation former high school varsity athletes are statistically larger than then number of first-generation non-high school athletes.

To expand upon this hypothesis and to triangulate the findings of this study, the research included descriptive statistics gathered from facilitating two focus groups of former high school athletes. Nine college seniors and six college sophomores volunteered to participate in a 1-hour focus group session. During the voluntary focus group sessions, athletic study participants were asked questions related to their college transition, what they had gained from their participation in high school varsity athletics, and their thoughts about being first-generation college students who have persisted to earn their bachelor's degree. The study examined both the immediate effects of the transition to college and the possible long-term academic benefits of participation in high school varsity athletics for first-generation students at SPU.

Research Questions

Research question 1. What do these successful first-generation college students think about their high school varsity athletic experience as preparation for their college success?

Table 11

Focus Group Questions That Helped Answer Research Question 1

In what ways did participating in high school varsity athletics help you succeed in high school?
What did you gain by participating in high school sports? Characteristics? Traits?
How do you think your high school student-athlete experience prepared you academically for college?
Around the time, you were deciding to go to college, what made you believe you would be successful?

Sophomore responses. Most of the participants had very similar answers to these questions. It was repeatedly explained by balancing their high school classes and athletic participation, they learned 'time management.' One student explained, 'As an athlete you don't have much free time, so you have to spend it wisely, time-management is the best skill I learned.' The respondents also indicated they learned to 'focus' on academics when they had 'free time' after athletic practice and competitions. Other commonalities were that participation in high school athletics taught them 'to get along with everybody,' how to be 'teachable/coachable,' and how to 'work hard' for the things they want to accomplish. The last shared idea from the sophomore group was that their focus on academic success in high school was always tied to their goal of going to college when they graduated. Their priority was to earn good grades to get into college, but they also enjoyed the comradery of high school athletics and were 'glad I stuck with it all for years.' Additionally, most indicated they took Advanced Placement college classes in

high school, which prepared them to transition to college successfully, and gave them additional confidence that they could keep up with the rigor of college.

Senior responses. The participants agreed that the most beneficial things they learned through their participation in high school athletics, were 'time management,' 'goal setting,' and 'working hard.' They also indicated participating in sports 'made school more fun.' One young man stated, 'Sports keep you busy, so you're not doing anything else, you're just focused on school.' And so, 'when you do a sport, it motivates you to do well academically too.' One of the female participants said that participation in high school athletics taught her 'to be efficient' because 'sports takes away your free time, it helps you stay organized.' Another insightful comment was, 'It taught me to be responsible for myself and get a work ethic.' Many of the seniors also mentioned that athletic participation taught them the value of teamwork: 'It's not just about one person, you have to be self-less' and 'cope with diversity.' When asked, *What made you believe you would be successful?* one of the first-generation female senior summed it up, 'I graduated from high school at the top of my class and got out of the house to come here,' and continued, 'Oh, I'm finishing, regardless if there's bad history or any obstacles.'

Research question 2. What do these successful first-generation college students report was their high school athletic teammates' and coaches' influence on their college success?

Table 12

Focus Group Questions That Helped Answer Research Question 2

In what ways did your high school teammates and coaches influence your decision to go to college?
Who inspired you the most to pursue a college education?
Around the time, you were deciding to go to college, who made you believe you would be successful?

Sophomore responses. All the participants mentioned the role-modeling aspect of their teammates and the leadership of their coaches that helped them to do well in high school and aim for college. One young man explained the influence of the positive role modeling that happened on his basketball team. When he was an underclassman he noticed 'a lot of guys went to very prestigious universities' and 'those were the kids who did their homework' so he thought, 'I should do it too.' Participants also mentioned that most of their high school coaches talked with them about their post-secondary plans and 'pushed them' to succeed academically and athletically. One participant said of his relationship with his teammates and coaches, 'Those are the people that are going to bring you up, push you to continue and bring you to the next level.' Another male respondent explained, 'My coach didn't go to college,' so he always told his athletes to 'pursue college, get a degree, and be better than me.' Another participant verbalized, that without high school athletics, 'I would have been a follower my whole life, my coaches and teammates taught me leadership and that's carried over here.' Overwhelmingly, most participants mentioned their parents to be the most influential people that helped them decide to go to college. Many of them joked about their parents who, 'pushed them,' but they seemed to appreciate their parents' support too.

Senior responses. Most of the participants agreed that their coaches and teammates provided additional inspiration to attend college. One young man explained that during his junior year, his coach told him that he could 'be a D.1. student-athlete' if he put the work in and got better grades. He explained that his coach did not mean athletically, but academically, 'You can go to the school of your choice, if you work hard for it.' Another participant said that his high school coach was 'big on building character on and off the basketball court' and 'big on the future, he wanted all of to go off to college.' When the conversation turned to their teammates, one young lady said that she learned a lot from the upperclassmen when she was a freshman: 'I saw everyone else could do it (balance academics and athletics) and I knew I could too.' She explained that when she saw the varsity athletes doing their homework on the bus going to games, she thought, 'If I don't do it now, I'm not going to do it, I'll do it.' As the conversation went on, it was clear that the value of academic role modeling of their high school teammates was very beneficial. Additionally, it was also mentioned that as they themselves became the captains and role models of their teams, they took their 'leadership role seriously.' From the conversation, it seemed that most of these former high school athletes participated on high school teams that placed a high value on academic success and pursuit of a post-secondary education.

Research question 3. Do these first-generation former varsity athletes see their athletic experience as influencing their choice of college major, or career path?

Table 13

Focus Group Questions That Helped Answer Research Question 3

How does your *athletic identity* affect you at SPU?
Did your *athletic identity* play any role in bringing you to SPU?
Do you think your *athletic identity* influenced your college of college major or career?
Would you have attended SPU without your involvement in sports?
Was earning an athletic scholarship your main incentive to attend SPU?

Sophomore responses. During the focus group conversations, one of the questions was, *Do you think your athletic identity influenced your choice of college major?* One participant on the SPU wrestling team explained, 'since I got injured quite a bit' and 'had to go through physical therapy' he 'figured out' becoming a physical therapist would be good career path. A female participant described how she started college as an exercise science major because she was an athlete, but recently switched to elementary education after she stopped participating in athletics. However, she stated her athletic identity was still intact. As a teacher she hopes an opportunity 'to coach kids, the way I was coached growing up' will present itself. The college athletes collectively indicated that the reason they chose SPU for college was because they earned an athletic scholarship, and even without athletics in the equation, they still would have attended college somewhere.

Senior responses. When asked whether their athletic identity influenced their choice of college major, one of the senior participants said, 'I was always told by my coaches that I would make a good coach someday.' He went on to link his *athletic identity* to his current educational status: 'I'm student teaching now and looking for a teaching job next fall, hoping I'll be able to coach, too.' The other senior participants

joked that they did not notice a link between their *athletic identity* and college majors but explained they all would continue to be athletically minded in the future, as they go out to their career areas in biomedical sciences, business, criminal justice, and global studies. Uniquely, in the first-generation college senior cohort, there were two students from Germany. They said they did not know each other before coming to SPU, but both joined the SPU swimming and diving team five years ago, and they have become great friends. They said their majors were business and global studies, 'not linked to being athletes.' However, they laughed as they explained, 'We don't really have college sports in Germany,' and so they each decided to pursue a college education and extend their swimming career in the United States.

Research question 4: What themes emerge in the data of these persistent first-generation former high school athletes?

Table 14

Focus Group Questions That Helped Answer Research Question 4

Looking back, how do you think your experience as a high school varsity athlete changed you?
Do you think you'd be different if you did grow up in athletics?
What negative aspects of high school athletics did you experience?
I defined *growth mind-set* and then asked, what are your thoughts about the growth mind-set philosophy as it relates to your past athletic experience and your academic success?
It's my understanding you are all first-generation students. What does that mean to you? And to your parents? Family?
The fact that you're a first-generation college student, was that part of the conversation with your parents, when you were deciding to go to college? Did older siblings go?
As a first-generation college graduate, what will graduation day feel like for you? Your parents? Family?

Sophomore responses. Several themes emerged from the first-generation college sophomore cohort. They seemed to gain characteristics, academic skills, and life lessons through their participation in high school athletics. The spoke about 'time management,' 'leadership,' and developing 'self-confidence' as they advanced to participating in varsity-level athletics. Most importantly, through athletics they developed the growth mind-set to take on academic challenges and to expect success through effort. One respondent stated, 'Going through everything with sports and high school, I didn't see why I wouldn't be successful at college too, considering I've always gone in the same direction, forward.' Another theme that emerged was their perceptions of being a first-generation student and their support system at home. One of the focus group questions asked, 'What does that mean to your parents, for you to be a first-generation college student?' One young man joked, but then got very serious as he said, 'My mom got pregnant with me and never went to college, the least I can do is graduate.' One of the female participants who did not say a lot during the focus group jumped into the conversation to say, 'I'm the only one in my whole family, it's crazy.' One of the male participants said, 'Graduating from high school was a big deal for my entire family, this is going to be a really big deal.' In closing, the same young man said, 'All of our families are going to be so proud.'

Senior responses. The older participants had similar emerging themes about what they had gained through their participation in high school athletics. In response to the *growth mind-set* questions, one college athlete said, 'I've done a lot, and have never dropped out of anything, I'm not going to start now.' The seniors had a lot more to say about their families and their motivation for attending college. One student said he works

with his dad in the hot summer weather doing manual labor and, ‘it sucks, so my dad always reminds me to get a college degree.’ One of the female participants also said that her mother has always reminded her, ‘Get a degree because it sucks to have a low-paying job you hate, just because you don’t like school.’ Another theme the seniors mentioned that the younger cohort did not talk about was the influence of their siblings. One female participant strongly said, ‘My sister is crazy, she dropped out of college after two years and decided to live with my parents, I don’t want to be like her.’ Another one said, ‘My parents work seven days a week, I don’t want to do that.’ Contrary to that statement, one female respondent said, ‘I’m the oldest’ and ‘I have to show the younger ones the right way to do this.’ The main commonality among the seniors was that they took negative and positive inspiration from their home environments, but they have persisted to college graduation because they want to create better career opportunities to be able to provide for their own children. In response to the question, ‘What will graduation day feel like for you and your family?’ the room got quiet, and then one student said, ‘It’s going to be awesome! They didn’t get to go (to college), but we did…my parents, I mean our parents are going to be so proud.’

Table 15

What Has Made You a Successful First-Generation Student?

First-generation sophomores	First-generation seniors
I use my time wisely	I am motivated to earn my degree
I am dedicated to assignments	Focused on academics, grades, career
I put in a lot of hard work	My parents motivated me to do this
I always apply myself	Hard work, work ethic
Failing is not an option for me	Time management
In high school I took rigorous courses	Pushed myself to make parent proud
I study a lot for exams	Persistence, determined
I'm interested in my future career	I don't want to live paycheck to paycheck
I enjoy learning	High school prepared me
I like to be challenged	Not accepting failure

Table 16

Sophomore Responses: How has Your Participation in High School Sports Impacted Your Success at SPU?

High school sports helped me learn how to manage my time well and the importance of hard work. These things have only been beneficial for me in college and life.
Sports impacted me to be a driven person with great social skills to help me succeed in college.
Playing sports in high school really taught me the value of hard work and showed me how hard work pays off.
I had to remain academically eligible in high school and college, which has been a bonus.
Sports always really motivated me to do well in high school and now in college.
Sports remind me to set goals. If you really want something, you must put in the time and effort to achieve that goal…it's usually worth it.

Table 17

College Senior Responses: How has Your Participation in High School Sports Impacted Your Success at SPU?

I feel like the competitiveness I learned in high school athletics has helped me perform better academically.
It gave me motivation to keep my grades up and to also work out in college to have a healthy life.
Athletics set me up for overcoming any challenges at college
High school sports taught me how to be self-disciplined and organized.
Sports gave me a busy schedule, making me more responsible and prepared for the responsibilities of college.
Athletics taught me to work hard and to work as a team, to reach goals.
Sports for sure positively impacted my academics at college. However, college sports did not help me academically only financially.

Axial and Open Coding

The process of axial coding included predetermined categories of characteristics found in the literature specific to academic benefits of participation in high school

athletics. The categories identified in the literature review are as follows: (a) grit and perseverance, (b) growth mind-set, (c) internal locus of control, and (d) intrinsic motivation. Utilizing axial coding, focus group data were analyzed and aligned to each category. Then, open coding was used to analyze the focus group qualitative data and three emerging behaviors and two life skill themes were discovered. The emerging behavior themes were related to participants perceived academic benefits of participation in high school varsity athletics that they believe have allowed them to be successful first-generation students at SPU. Three behavioral themes emerged: (a) academic importance, (b) time-management, and (c) leadership. The two-life skill emerging themes were, interpersonal relationships and the importance of career development. Data was further divided into first-generation sophomore college students and first-generation college seniors. The following table summarizes the emerging themes found utilizing qualitative data gathered from the focus groups.

Table 18

Emerging Themes and Categories

Emerging characteristics	Emerging behaviors	Emerging life skills
Grit and persistence	Academic importance	Interpersonal relationships
Growth mind-set	Time-management	Career development
Internal locus of control	Leadership	
Intrinsic motivation		

Emerging characteristics: Grit and persistence. Individuals with grit exhibit mental toughness, courage, and resolve; they have strength of character and have the tendency to pursue long-term, challenging goals with perseverance and passion (True Grit, 2013, p. 10). Individuals who get involved in a youth sport at an early age and

participate in high school athletics for four years, typically exhibit persistence to reach their highest level of athletic skill in their chosen sport(s). Gritty people take pride in mastering skills other people do not possess, and they are motivated to work hard in multiple areas of their life, to reach their desired results. Ledbetter (2015) explained that the only way a person can become better at bouncing back from setbacks is to have setbacks (p. 146). An individual's determination and ability to handle setbacks exhibited through athletics can oftentimes carry over to academic goals, such as persistence to college graduation. Duckworth (2007), an expert on grit suggests in her book on the subject, that people should be taught to be gritty, not smarter. Prior research indicated that first-generation college students face more challenges than their non-first-generation counterparts. Therefore, this study explored the perceptions of first-generation, former varsity athletes to discover if their level of grit was enhanced through their participation in high school athletics. Perhaps their level of grit made a difference in their pursuit of a bachelor's degree, against overwhelming odds.

First-generation sophomores. Several participants described their grittiness, as 'coming up against adversities, you just have to overcome' and 'I put the time and energy into it and it's got me to where I am now.' One of the participants who is a wrestler at SPU stated, 'I've got the ability to be steadfast through adversity.' Other statements that indicated grit were 'I have passion for it (education) so I keep coming back' and 'I've always been pretty driven, I work hard to get what I want.' One of the male participants summed it up this way: 'Being able to continue on through the hard parts of life.' Lastly, a participant said, 'School has never come easy, it isn't like a breeze, but I know I'm not going to quit.'

First-generation seniors. During the focus group conversation, most of the first-generation senior participants were a month from college graduation. Most had very clear perceptions regarding their persistence to college graduation. One student said, 'Oh, I'm finishing, regardless if there's bad history or any obstacles.' The same student explaining her motivation to earn her bachelor's degree said, 'That's why I didn't drop out of high school like my parents, I got out of my house as soon as I could and came here.' Another respondent added, 'I've never dropped out of anything, so it was almost impossible for me to do poorly here.' Another said, 'You're going to have to do things you don't want to do, shit happens, but you get over it and persevere.' When asked, 'In what way did participating in high school varsity athletics help you academically?' one of female participants jumped in and said, 'I think we're all still competitive, that's why we're graduating, when people didn't think we would.' Then another participant summed up his grit up this way: 'I just had to be (successful) there has never been a back-up plan.'

Emerging characteristic: Growth mind-set. A person with a growth mind-set believes that intelligence can be developed, so that person embraces challenges, gives best effort, learns from feedback, becomes inspired by others' successes, and believes intelligence can change with hard work (Dweck, 2006, p. 7). Athletes gain experience breaking down a skill and adding to its complexity over time. For high school athletes, it seems they naturally learn they can carry over the growth mind-set characteristics to their academic challenges. Perhaps a first-generation college student's growth mind-set can be enhanced enough through high school athletics that it makes a positive difference in the pursuit of a bachelor's degree.

First-generation sophomores. Not all participants answered the questions about growth mind-set, but those who did expressed athletic and academic examples. One college athlete said, 'I continually grow' and 'when I put the extra time and effort in, I get what I want out of it.' When asked, 'In what ways did participating in high school varsity athletics help you academically?' one participant said, 'Athletics taught me to be teachable' and 'you're going to get corrected and you learn to do it better next time.' Another student explained that athletics really pushed him to work hard for the 'next level' so he started 'taking AP classes to challenge myself academically too.' The participants also commented on the positive influence their high school teammates had on their academic outcomes to get to college. One female participant said, 'If they can do it, I can do it' and another said, 'Seeing academic success in my school, helped me decide what I wanted to do after high school.' The last comment was, 'It (going to college) grew to be something I knew I could do.'

First-generation seniors. The seniors shared the same thoughts as the younger students, but with more real-world experiences of the benefits of a growth mind-set. One young man said, 'I had to start at a community college, but when I was successful there, I knew I could make it here.' The participants agreed that through athletics they learned how to apply the growth mind-set philosophy to their academics. One student joked that he learned to challenge himself because of a life lesson his coach taught him: 'My coach always said, '*Can't is not a word*' and when we said the word or even though we couldn't do something, we ran.' One male participant added his insight, 'I know now, that working hard is good for me and when I work hard, I learn more.' One senior male was

student teaching and added, ‘I’ve been trying to teach kids math and know if they work hard enough at it, they’ll learn math, like I did.’

Emerging characteristics: Internal locus of control and intrinsic motivations. Locus of control is the theoretic construct designed to assess a person’s perceived control over personal behavior, with internal control defined as a predominance of outcomes perceived to be determined by one’s own behavior and characteristics, and external control defined as outcomes perceived to be determined by chance, fate, or other outside forces (Otten, 1977, p. 645). At some point, these successful first-generation college students had to realize they themselves had control over the outcomes in their own lives, based on their own actions and internal priorities. During a focus group, one of the young ladies expressed, ‘That’s why I didn’t drop out of high school like my parents, I got out of my house as soon as I could and came here.’ The participants in the focus groups had many things in common, but most notable was their strong internal locus of control and intrinsic motivation to become first-generation college graduates, against unfavorable odds.

First-generation sophomores. These characteristics emerged in the responses to the question, ‘Around the time you were deciding to go to college, what made you believe you would be successful?’ One student blurted out, ‘I knew I could do it, I decided everything on my own, they (parents) just helped me pay for it.’ One of the other respondents expressed her internal locus of control this way, ‘I just wanted to get out of there, away from my low-income parents.’ Another student described her intrinsic motivation by saying, ‘I personally wanted to go to college, I felt I could do it on my own, so I have.’

First-generation seniors. During the focus group session, the senior participants were close to graduation and seemed to be more self-confident than the younger cohort. In response to 'What has allowed you to persist to college graduation?' a couple of females in the group expressed their *internal locus of control* by saying, 'I just knew I could do it, so I have,' and another said 'I just had to.' Then the group talked about not having a back-up plan, although one male participant joked he thought about being a truck driver but decided getting a college degree was a better choice. The female who was most interactive throughout the focus group had already mentioned that she had a twin sister who attended another university and joked, 'I just always have to do better than my sister.'

Emerging behavior: Academic importance. This study was designed to investigate the ways in which participation in high school varsity athletics may impact academic success of first-generation college students. Prior research has examined the educational outcomes while the athletes were enrolled in high school, but this study was designed to investigate the long-term educational outcomes for first-generation college students who are also former high school varsity athletes. Murphy and Hicks (2006) reported that 'first-generation students are less academically prepared for college' and 'at-risk of being academically, socially and economically left behind their non-first-generation peers, even when their motivation and academic credentials are equal' (p. 3). Therefore, the purpose of this study was to explore the ways in which participation in high school varsity athletics positively influenced the study participants' academic success in high school as well as in their pursuit to earn a bachelor's degree at SPU.

Sophomore first-generation students. Most of the focus group participants responded to the question, 'How do you think your high school student-athlete experience prepared you academically for college?' One of the first responses was, 'High school athletics taught me to focus just as hard on my grades, that's helped me, here.' Two other students added, 'For me, being successful at one thing (sports) made me want to be successful at other things (grades), so I worked hard at both,' and, 'Hard work translates over to academics, I did three sports and finished high school with a 3.77.' Another participant mentioned that being a high school athlete was like having a 'full-time job and going to school part-time,' so without participating in sports in college, 'getting good grades is college was easy.' In summary, one participant said, 'I didn't really link the two together before, but it makes a lot of sense.'

Senior first-generation students. The senior responses were similar to those of the second-year students as they answered the question, 'How do you think your high school student-athlete experience prepared you academically for college?' They answered with 'by working hard at everything' and 'setting goals' and by 'developing time-management skills.' One of the former athletes explained, 'Because I did sports, I needed a certain GPA, so I spent a lot of time on my grades, too.' Another observation was that 'when I wasn't doing a sport (off season), I didn't care about my grades as much.' And another perspective was from one of the college athletes who added, 'It was easy to balance both in high school, it's been hard here.'

Emerging behavior: Time management. One of the overarching themes that emerged from the survey and focus groups was the academic benefit of time management. All of the athletic participants in the focus groups mentioned the value of

time management, which they had learned after balancing their academic and athletic demands in high school. College-bound-high-school varsity athletes typically learn to balance the academic demands of seven classes a day, after-school practices, night and weekend competitions, and their social circle. However, when student-athletes are unable to balance these demands, they typically stop participating in athletics because they no longer meet the eligibility rules, they have parental pressure to quit because their grades are declining, or they lack the interest needed to continue such a demanding schedule.

First-generation sophomores. Time management was one of the most reoccurring topics during the focus group. In response to the question, 'How did high school athletics help you prepare for college?' one young man started the conversation saying that as a high school multi-sport athlete, 'it was really important to have time management skills, and that has been something that has really helped me succeed in college.' Another student gave an example of his typical high school day, saying that 'focusing on academics' when he had down time was the only way he could have made it to college. One of the female participants said, 'Being a student-athlete teaches you how to balance your sport and academics, it taught me how to keep my schedule balanced.' To summarize as one student said, 'Time management is the biggest thing that influenced me as a successful high school and college athlete.'

First-generation seniors. The seniors also responded to the question, 'How did high school athletics help you prepare for college?' with the time-management answer. 'Sports keep you busy, so you're not doing anything else, you're just focused on school.'

In addition to that, one of the participants mentioned being ‘efficient’ because ‘through sports you actually get better with using your time wisely.’ A female student said, ‘The time sports take away from your free time, helps you stay organized.’ The participants agreed that time management was the most valuable skill they learned through high school athletics, but not all student-athletes are successful students. One female participant explained that ‘there’s a lot of athletes who quit’ because it is just ‘too hard’ to balance all the demands. She described that there were 30 girls on her freshman soccer team, but only four who participated on the team for all four years. ‘The four of us became the captains,’ and ‘we’re all are going to graduate from college this year.’

Emerging behavior: Leadership. Leadership is a powerful attribute to possess for adolescents as they transition to adulthood. It is recognized that high school varsity athletes develop leadership skills that oftentimes transfer to other areas of their life. Most college applications have a leadership criterion that the admission counselors evaluate, because leadership experience indicates characteristics often necessary to succeed in college and beyond. A high school athlete who continues his or her chosen sport(s) for four years and becomes a varsity captain, selected by their coaches and peers, is a leaders. Most of the focus group participants indicated they learned leadership skills through athletics.

First-generation sophomores. In response to the question, ‘What did you gain by participating in high school sports?’ the topic of leadership was mentioned repeatedly. A few of the participants said, ‘Through sports, I grew into a leadership role,’ ‘From a pretty young age, I learned to lead my team,’ and, ‘You want to set a good example for the younger kids.’ One of the female participants said, ‘Without sports, I would have

always been a follower, not a leader.' She went on to say that being involved in sports gave her more 'self-confidence' and 'helped me break out of my shell' so she was able to make more friends and enjoy school more.

First-generation seniors. The senior group also mentioned leadership in response to the question, 'What did you gain by participating in high school sports?' One participant described how 'since team leadership continues,' the freshmen just go along with whatever the captains do, but 'by the time you were a senior, you knew you had to lead.' Several participants mentioned the positive benefits of having a good 'role model' on the team when they were younger and the responsibility of leading as they got older. Another jumped into the conversation by summarizing, 'Yes, by the time you're a senior, you're comfortable with leading because you are more skilled academically and athletically.'

Emerging life skill: Interpersonal relationships. Every focus group participant mentioned the interpersonal social skills they learned through their participation in high school athletics. Most of the students mentioned their teammates, coaches, and parents as their main support system throughout high school and even as they persist toward college graduation. It is well established there is great value in being able to communicate effectively, work with others, and respect diversity.

First-generation college sophomores. In response to the question, 'What did you gain by participating in high school sports' there were many different answers, and yet a common theme emerged. In short, the participants learned *people skills* in the heat of competition and learned the value of being a member of a team. 'Without sport, I might not have learned how to be flexible or tolerant of people I don't really know.' Another

participant explained that through athletics, ‘I learned how to solve conflicts between other people’ and ‘I got good at helping resolve issues before they became larger than they should be.’ One of the men said, ‘You have to be able to communicate well with people, to have success as a team,’ and another said, ‘When you look up to the upperclassmen, you feel like you’re in the right place.’ One of the sophomore males said that his teammates were his best friends, and ‘those were the people who push you on and bring you to the next level.’

First-generation college seniors. The senior group had a lot to say in response to the question, ‘What did you gain by participating in high school sports?’ One male participant started the conversation by saying ‘being a part of something bigger than yourself, it’s an important life lesson,’ and another student said, ‘At a young age, I learned selflessness, for the team goal.’ Another student said, ‘You learn to put up with some things that are just not fair’ and ‘that’s just how life is.’ The conversation continued with one senior saying, ‘There’s just so many different personalities on a team, it teaches you acceptance, diversity, and empathy.’ A college football player made the last comment, telling the story of how when he was younger, the guys on his football team would get into actual fights in the locker room almost every day, ‘and we were terrible.’ However, by the time he was the varsity captain, he made sure to tell his team ‘Even if you don’t like some stuff about each other…we gotta get along to be successful.’

Emerging life skill: Career development. Given the fact that all the participants in this study were first-generation college students persisting to college graduation, the theme of career development emerged. Most of the focus group participants mentioned that their main motivation to go to college was because they saw their parents struggle

without a college degree. Every participant has been academically motivated and expressed the importance to persist to earn a college degree to have better career opportunities.

First-generation college sophomores. The response to the question, 'Who inspired you the most to pursue a college education?' had an overwhelming commonality. All but one student said their parents provided the inspiration, and they gave examples of how they have witnessed their parents struggle to raise their family on low-wage jobs and 'wanted me to do this so I'd have a better life.' One man said, 'My dad influenced me by saying you're smarter than me, you can do so much more than I have done.' Another male respondent explained that going to college to earn a degree was his only option, 'because I don't want to work at McDonald's and struggle.' He went on to say, 'It was either get a job right away or go higher, and hopefully get a good job later, I just took the long road.' Many of the participants mentioned their choice of majors and career goals while answering each question of the focus group. It was clear they all had the intrinsic motivation to thrive during college and beyond.

First-generation college seniors. As seniors, these rising first-generation college graduates were very insightful about their college experience and articulate about their career path. In response to the question, 'Do you think your athletic identity has influenced your choice of college major or career?' the participants had a variety of comments. One of the participants was in the middle of his student teaching experience and said that helping his teammates 'who were on the verge of eligibility' helped him develop his interest in teaching. He also added how excited he was to be looking for a teaching position, as well as hoping to coach next school year. Another senior said that

he wanted to become a physical therapist because as a wrestler, he got hurt a lot and found the rehabilitation process 'like something I would enjoy for a career.' Another student told a story about working with his father in the hot summer weather; he said he would complain all the time, so his dad constantly reminded him, 'You better get a college degree then.' That senior summarized his thoughts this way: 'Laborious work is ok at 18 years old, but at 50, 60…building a career now is a better plan for all of us.'

GPA Summary of Results

The following figure shows the GPA summary of the 76 first-generation study participants, which included varsity high-school-only athletes, high school and college athletes, and nonathletes. The figure displays the participants' final high school GPA and their current college GPA. Self-reported data was gathered from the anonymous demographic survey.

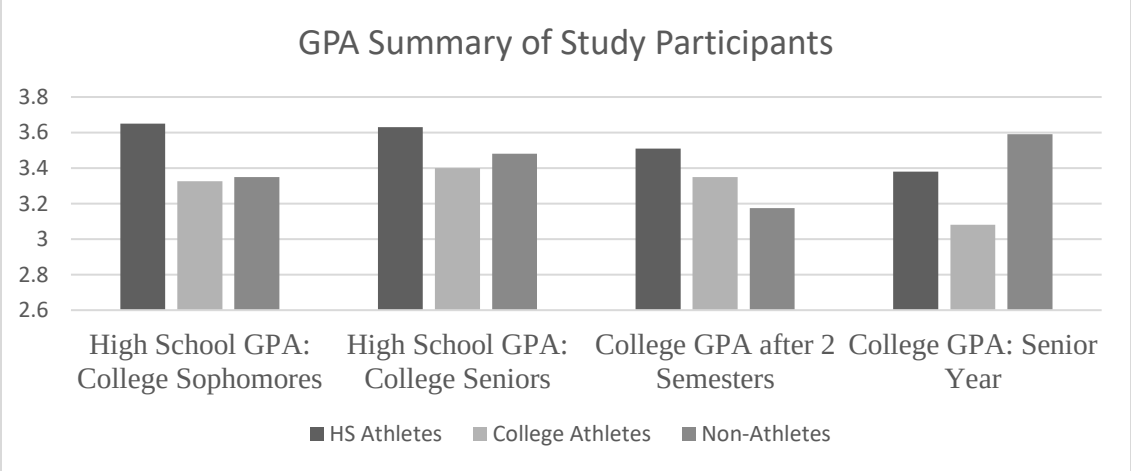


Figure 14. GPA summary of the 76 first-generation study participants.

Qualitative Summary of Results

Utilizing axial and open coding, and descriptive statistics three emerging categories and nine emerging themes were found and are shown in Table 20 in Chapter Four. The three main categories of emerging themes were: (a) characteristics the

participants identified that were enhanced through athletics and have helped them pursue a bachelor's degree, (b) behaviors they learned as high school student-athletes, and (c) life skills that they were exposed to through athletics and will carry on throughout their lives. The emerging characteristics were: (a) grit and persistence, (b) growth mind-set, (c) internal locus of control, and (d) intrinsic motivation. The emerging behaviors were: (a) academic importance, (b) time management, and (c) leadership. The emerging life skills are improved ability for interpersonal relationships and an importance of career development.

Summary

Results of the anonymous demographic survey and the focus group descriptive analysis were presented in this chapter. The researcher synthesized the mixed-method results through a two-tailed *t*-test of quantitative data and coding of the qualitative data, which revealed several emerging themes. Findings produced common themes centered around: characteristics, academic behaviors, and life skills enhanced through athletics and beneficial to these first-generation college students who are persisting to college graduation, within six years of high school. This research design discovered ways in which participation in high school athletics positively impacted first-generation college students while they are enrolled in college and persist toward graduation. The results were summarized in tables and figures. The study examined both the immediate effects of the transition to college and the possible long-term academic benefits of participation in high school varsity athletics for first-generation students at SPU.

Chapter Five: Discussion and Reflection

As the literature review reflects, first-generation college students are known to have many challenges that decrease their persistence to graduate, but minimal research has been done to explore the reasons why some first-generation students persist to college graduation. As mentioned before, the National Center for Educational Statistics (2015) reported indicated that less than 25% of first-generation college students earn a bachelor's degree within six years of high school graduation, compared to 68% of their non-first-generation counterparts (Opidee, 2015, para.1). Based on the researcher's experience as a school counselor and coach, my assumption was that perhaps former varsity athletes have more favorable outcomes than the national statistic indicates. Lipscomb (2007) reported that students who participate on high-school-sponsored athletic teams typically increase their concentration on high school academic achievement while enrolled in high school. This study however, explored the possible long-term academic benefits. Utilizing two cohorts, the study discovered ways in which participation in high school athletics positively affected first-generation college students while they are enrolled in college and have persisted to college graduation.

Before the study was conducted, the true aim of the hypothesis was to compare academic achievement of former high school varsity athletes to nonathletes, without consideration of the subgroup of college athletes. However, after the 76 study participants were identified, it became clear that a surprising number of them, 25, were college athletes. For this reason, the college athletes' data were both included in the high-school-only group and excluded in all evaluations to determine any statistically significant findings. To investigate the hypothesis, several two-tailed *t*-tests with a 0.05

confidence level were utilized. In sum, the findings produced statistically significant differences in two areas between first-generation college students who were former high school athletes and those who were not high school athletes: Their final high school GPA and their GPA after the first year of college. Another significant finding was the difference in the number of semesters it took college athletes to complete their degrees compared to the high-school-only athletes. The qualitative data from the 14 athletic focus group participants illustrated common themes regarding the academic benefits of participation in high school varsity athletics. These themes centered around personal characteristics, academic behaviors, and life skills enhanced through athletics that have been perceived as beneficial for new first-generation college students and for those participants who have persisted to college graduation, within six years of high school.

This research study primarily investigated the overarching question, *In what ways did participation in high school varsity athletics positively impact academic success of first-generation college students at SPU?* Chapter Five includes answers to the hypotheses and research questions and a discussion of the following topics: (a) the study participants, (b) the statistical findings, (c) the emerging themes, (d) the recommendations for practice, (e) recommendations for further research, and (e) the conclusion.

Study Participants and Instrumentation

All study participants were first-generation undergraduate college students at SPU during the Fall 2016 semester. Two cohort groups were utilized in this study:

a) first-generation students who graduated from high school in 2015, are under the age of 21, successfully completed their first year of college during the

2015-2016 school year, and returned to SPU for their second year of college in the fall of 2016; and

b) first-generation college seniors between the ages of 21 and 25 who graduated from high school since 2011, are enrolled in the final two terms of their bachelor's degree, and have applied for graduation during the 2016-2017 school year.

These cohorts were selected to participate in this study to reflect two check points in the college experience. The first year of college is widely recognized as a crucial point for all college students, but the transition to college can be particularly difficult for at-risk populations (Tinto, 1993) and of course, earning a bachelor's degree is a true mark of college success. Self-reported demographic quantitative data were analyzed to compare academic achievement of high-school-only athletes, college athletes, and nonathletes. The study examined both the immediate effects of the transition to college and the possible long-term academic benefits of participation in high school varsity athletics for first-generation students at SPU.

In sum, 76 first-generation students accepted the invitation to participate in this study and completed an anonymous electronic demographic survey. Reponses were gathered from 33 first-generation college sophomores and 43 first-generation college seniors, both former high school athletes and nonathletes. The quantitative data points analyzed were (a) cumulative final high school GPA, (b) current college GPA, (c) highest composite ACT score, and (d) the number of semesters it has taken to complete their bachelor's degree. The quantitate analysis of this study primarily compared demographic

data of varsity high-school-only athletes, current college athletes, and first-generation students who were not involved in high school athletics.

The final survey question asked the students if they participated in high school athletics, and if so, at what level. Participants who self-identified as former high school varsity athletes were asked to participate in a focus group with their respective cohort of athletic peers. The first 10 former high school varsity athletes in each cohort who volunteered to participate were invited to attend their respective focus group two weeks later. During voluntary focus group participation, former high school varsity athletes were asked questions related to their college transition, what they gained through high school athletics, and their first-generation status.

Triangulation of Results

This section is a discussion of the links between the literature review, the demographic survey results, and the focus group findings. The research questions were designed to address academic achievement checkpoints found in the literature, as well as topics related to the benefits of participation in high school athletics, and overcoming the traditional barriers of first-generation college students. Details of the study results are found in Chapter Four. This chapter will connect quantitative results and the qualitative emerging themes found.

Answering the Null Hypotheses

H_01: First-generation college students who participated in varsity high school athletics will not have a higher college grade point average than first-generation students who did not participate in high school athletics.

The researcher conducted several two-tailed *t*-tests with a 0.05 significance level to investigate this hypothesis. The researcher analyzed data from both cohorts and scrutinized the college athletes' data, including them and excluding them in all evaluations. The true aim of this hypothesis was to compare high school athletes to nonathletes, without college athletes in the equation. In sum, data from the sophomore cohort revealed that after two semesters of college completed, there was a statistical significant difference in college GPAs between former high school athletes and nonathletes. The 13- former high-school-only athletes earned a 3.519 college GPA, and the 10 nonathletes had a 3.175 GPA. Therefore, I rejected the null hypothesis, in support of the alternate, and accepted that the college GPA (after two semesters) of former high-school-only athletes was significantly higher than that of the nonathletes. Therefore, this study provided evidence that these first-generation former high school athletes transitioned to college with a higher level of academic success than did their non-athletic first-generation counterparts.

To expand the investigation of the sophomore cohort, the researcher added the 10 college athletes to the 13 high-school-only athletes and conducted a two-tailed *t*-test to compare the college GPA of 23 former high school athletes and the 10 nonathletes. There was not a significant statistical difference, but the contrast in the average college GPA of 3.44 earned by the former high school athletes and the GPA 3.175 earned by the 10 nonathletes was noteworthy and not surprising to the researcher.

In brief, as the literature indicated and this study discovered, involvement with high school varsity athletics typically enhances the educational outcomes of those who participate. After close analysis of the sophomore cohort focus group data and

discovering the emerging themes through the descriptive analysis, the first-generation participants voiced many ways in which participation in high school varsity sports helped with the immediate transition to college in the form of enhanced academic behaviors, personal characteristics, and life skills.

As the researcher progressed to examine the senior cohort, the researcher was expecting similar results, but when the researcher tested for significant statistical differences in college GPAs between high-school-only athletes and nonathletes, there was nothing statistically remarkable. However, the senior cohort yielded some interesting results that differed from those of the sophomore group. In sum, of the 43 senior participants, the 15 high-school-only athletes had a cumulative college 3.38 GPA, the college athletes had a 3.08 GPA, and the nonathletes had an average 3.59 GPA. The researcher then conducted a two-tailed *t*-test to compare the college 3.23 GPA of the 30-former high school varsity athletes and the 3.59 GPA for the 13 nonathletes. There was no statistically significant difference, but the overall college GPA results for the seniors were somewhat surprising. This researcher surmised that perhaps over time, athletes may benefit academically (GPA) from their high school varsity athletic experiences as much as they did in the initial transition to college, as revealed in the sophomore GPA data. However, as the researcher will discuss later in the chapter, the number of college semesters it took the athletes to graduate was significantly fewer than the former high school varsity athletes, indicating their level of grit and persistence must remain throughout their college career.

After finding a statistically significant difference between college GPAs of former high school varsity athletes and nonathletes with the college sophomore cohort, the

researcher decided to expand the original focus of the college GPA hypothesis to investigate the difference in their final high school GPAs. In accordance with what much of the previous literature reported, it was found that the college-bound high-school-only athletes in this study had significantly higher final high school GPAs than did their nonathletic first-generation college-bound counterparts. In sum, the former high-school-only varsity athletes 3.65 final high school GPA compared to the non-athletes' 3.35 GPA.

The researcher then evaluated the senior cohort for differences in their final high school GPAs. Of the 43 senior participants, the high-school-only athletes earned an average 3.63 final high school GPA, all 30 varsity athletes (including the 15 college athletes) earned a 3.51 GPA, and the nonathletes finished high school with a 3.48 GPA. Again, these variances lead this researcher to draw certain positive conclusions about the academic benefits of participation in high school varsity sports. While the researcher cannot suggest there is a direct cause and effect between high school athletics and higher GPAs, the researcher believes the academic importance and life skills learned as a high school student-athlete translate to positive trajectories during college.

$H_0$2: First-generation college graduates who participated in varsity high school athletics will not persist to graduation in fewer semesters than first-generation graduates who did not participate in high school athletics**.**

The aim of this hypothesis was to compare former high school athletes to nonathletes, without college athletes in the equation. However, because 15 of the 43 senior participants were college athletes, the researcher evaluated them in a separate category. Utilizing self-reported data points and a two-tailed *t*-test, the researcher analyzed the number of semesters it took for first-generation college seniors to earn a

bachelor's degree. In sum, the 15 former high-school-only athletes graduated in 8.06 semesters, the 15 college athletes in 8.86 semesters, and nonathletes in 8.84 semesters. A two-tailed *t*-test compared the number of semesters to college graduation for high-school-only athletes 8.06 verses nonathletes 8.84 resulted in a *p* value of 0.064, higher than the 0.05 significance level. Therefore, no statistically significant finding was indicated and the researcher had to fail to reject the null hypothesis that high school varsity athletes do not persist to college graduation in fewer semesters than their nonathletic first-generation college counterparts. However, the *p* value was very close, representing a nearly significant difference. To complete the analysis, the researcher compared the 8.08 semesters it took for former high-school-only varsity athletes to graduate from college and the 8.86 semesters it took the college athletes and found a *p* value of 0.04, indicating a statistically significant difference. This result specifically pointed to the demands of collegiate sports and suggests that many college athletes are redshirted a year or perhaps take fewer credits per semester to better balance the demands of being a college athlete.

$H_0$3: There will not be more first-generation college graduates who participated in high school athletics than first-generation graduates who did not participate in high school athletics.

To analyze this hypothesis, the researcher utilized a Two Proportion *z*-test from data points gathered from the anonymous online survey. Of the 43- total first-generation senior participants, 30 indicated they had been high school varsity athletes (P1) and 13 that were not high school athletes (P2). The null hypothesis was P1=P2. Based on the sample size the researcher calculated a *p value* of .00012 < .01. This evidence showed P1 is significantly bigger than P2 so the researcher can reject the null hypothesis in support

of the alternate. In sum, based on the sample utilized in the study, first-generation former high school varsity athletes are statistically larger than then number of first-generation non-high school athletes.

To expand upon this hypothesis and to triangulate the findings of this study, the research included descriptive statistics gathered from facilitating two focus groups of former high school athletes. Fifteen former high school athletes volunteered to participate in the 1-hour focus group sessions, nine college seniors and six college sophomores. During these sessions, participants responded to questions related to their college transition, what they thought they had gained from their participation in high school varsity athletics, and their perceptions about being first-generation college students who have been academically successful at SPU. The study examined both the immediate effects of the transition to college and the possible long-term academic benefits of participation in high school varsity athletics for first-generation college graduates at SPU.

Answering the Research Questions

Research question 1. How do successful first-generation college students think their high school varsity athletic experience as preparation for their college success?

As described in detail in Chapter Four, almost every focus group participant expressed the value of learning how to balance academic rigor, athletics, and their social life in high school. All the participants were college-bound during high school and were very focused on maintaining good grades as they challenged themselves with Advanced Placement classes and varsity athletics. Numerous study participants said, that ‘time management’ was the biggest academic benefit of being a college-bound varsity athlete

during high school as they transferred to college. One student summed it up by saying, 'As a student-athlete you don't have much free time, so you have to spend it wisely.' Other commonalities within sophomore cohort were that participation in high school athletics taught them 'to get along with everybody,' how to be 'teachable/coachable,' and how to 'work hard' for the things they wanted to accomplish.

The college senior participants also mentioned the benefit of learning time management, academic importance, and 'building character' with their teammates, as college-bound high school students. One young man stated, 'Sports keep you busy, so you're not doing anything else, you're just focused on school.' He continued to make the link between thriving in athletics and his academic focus by explaining, 'When you do a sport, it motivates you to do well academically too.' Another insightful comment was, 'It taught me to be responsible for myself and get a work ethic.' Many of the seniors also mentioned that athletic participation taught them the value of teamwork: 'It's not just about one person, you have to be selfless' and 'cope with diversity.' Not all the benefits expressed by these former high school athletes are directly related to academic success at SPU; however, the results of the focus groups indicate the experiences varsity athletes encounter during high school provide life lessons that result in more self-confidence and the growth mind-set to challenge themselves as they persist against unfavorable odds as first-generation college students.

Research question 2. What do successful first-generation college students report was their high school athletic teammates' and coaches' influence on their college success?

All the participants mentioned the academic role-modeling aspect of their teammates as they were growing up as high school student-athletes. Many of the participants commented on the academic influence of the upperclassmen on their teams just as they started to think about trying to go to college. One participant said, 'A lot of the older guys went to very prestigious universities' and 'I noticed they were the ones who did their homework,' so he thought, 'I should do it too.' Another participant described the importance of the relationship with his teammates and coaches: 'Those are the people that are going to bring you up, push you to continue and bring you to the next level.' Most of the sophomore group also mentioned that their high school coaches made academic success a priority by expressing the expectation that the student-athletes would earn the good grades that would enable them to stay eligible for high school athletics and persist to college successfully.

The seniors had similar viewpoints, with the examples coming from the perspective of when they themselves were upperclassmen and captains of their teams. As the conversation unfolded, many of them talked about the responsibility they felt as they became the academic and athletic role models for the younger athletes on their respective teams. One female participant said, 'I took the leadership role seriously' and 'so I got even better grades and worked harder.' Again, the senior group seemed to have had high school coaches who placed a high value on academics and reminded the athletes to pursue college, even when they were not pursuing collegiate athletics.

On a personal note, looking back 30 years, I believe that if my high school teammates and athletic peers were not college-bound, I would not have been as academically focused or would have been able to develop the necessary life skills or self-

confidence to enroll and excel during college. As mentioned earlier, I was a first-generation student and very unaware of the college process, until my teammates, coaches, and future college coaches showed me step by step. I moved to a new high school my sophomore year, so my teammates became my best friends, who along with my coaches inspired me to set the goal of running track in college. Therefore, as a junior I became motivated to take college preparatory classes to meet the academic requirements necessary to get accepted and gain the academic foundation necessary to become a first-generation college student and graduate. As a matter of fact, as I began to get athletic scholarship offers my senior year, Erin, my best friend, another future first-generation college student said, 'Wherever you end up, I'll go with you. I know we can do it together.' And it turned out, we did and remain close friends thirty years later.

Research question 3. Do first-generation former varsity athletes see their athletic experience as influencing their choice of college major?

The study participants' choice of college majors are exhibited in Figure 7 and Figure 13 in Chapter Four. To better understand whether the participants' athletic identity influenced their choice of majors, the researcher asked more in-depth questions during the two focus groups. A few of the students linked their life long athletic involvement to their college major and career choice, but most did not. One sophomore participant who was on the SPU wrestling team explained that he was studying to become a physical therapist or athletic trainer because he had been hurt a lot and learned to enjoy the rehabilitation process. A female student described how she started off as an athlete at SPU and declared exercise science as her major. However, after a serious knee injury recently forced her to stop athletics, her athletic identity changed, and she decided to

change her college major. The same student went on to say that, as a future teacher, she hoped she would be able to 'coach kids, the way I was coached growing up.'

Participants in the senior cohort were nearing graduation at the time of the focus group, so could talk about their future careers. Only one participant expressed a link between his athletic identity and his career path as a future teacher and coach. Two students from Germany, however, spoke up in response to this question and explained that they had each come to SPU on athletic scholarships, linking their athletic identity to a free college education more than to their choice of college majors. They laughed as they explained, 'We don't really have college sports in Germany,' and so they each decided to pursue a college education in the United States through their swimming and diving talent. 'It's a lot harder to go to college in the U.S., but with athletics, it made it possible.'

Research question 4. What themes emerge in the data of these persistent first-generation former athletes?

To answer this question, the researcher utilized axial and open coding was utilized for descriptive statistics. The three categories and nine emerging themes are shown in Table 20 in Chapter Four. The three main categories of emerging themes were: (a) characteristics the participants identified that were enhanced through athletics and have helped them pursue a bachelor's degree, (b) behaviors they learned as high school student-athletes, and (c) life skills that they were exposed to through athletics and that will carry on throughout their lives. The emerging characteristics were (a) grit and persistence, (b) growth mind-set, (c) internal locus of control, and (d) intrinsic motivation. The emerging behaviors were (a) academic importance, (b) time

management, and (c) leadership. The emerging life skills are improved ability for interpersonal relationships and an importance of career development.

Recommendations

Most of the research on first-generation students has been focused on these students once they begin their college education, rather than on factors that influenced the students' success prior to college (Gibbons & Borders, 2010). Therefore, my most important recommendation to help first-generation college-bound students is to proactively prepare for the academic rigor of college while in high school. Years before students ever step onto a college campus, they have the power to drastically improve their post-secondary educational trajectory. As a high school counselor, the researcher realizes a post-secondary education is not desired or a realistic plan for all high school students. However, for college-bound students (not just first-generation students), the formula to improve the odds of earning a bachelor's degree is simple. High school students who have the goal of earning a college degree need to attend school every day, exhibit good citizenship, take rigorous courses, participate in extracurricular activities, and associate with high-achieving college-bound peers. Whatever their parents' level of education, all college-bound students must challenge themselves academically, overcome adversity, and set academic goals that they have the passion and perseverance to achieve. As the focus groups indicated, successful college-bound students must master the college preparatory high school curriculum while managing their time efficiently and establishing the grit for delayed gratification.

Recommendation for school districts. Colleges typically ask about their students' parents' level of education as part of the enrollment process, to help identify

first-generation students as they transition to college and to provide additional supports that may be necessary to thrive in the college environment. Consequently, from a high school counselor's perspective, it may be worthwhile to identify future first-generation college students while they are in high school. If these students were identified, high school counselors could focus more attention on their (and their parents) needs as potential first-generation college students and provide additional supports during the actual transition to college. Oftentimes, parents tell me that, because they themselves did not go to college, they feel overwhelmed as they try to help their children navigate through the college process. They are doing exactly what I want them to do: ask for assistance and self-identifying their needs. First-generation families need to be aware of the application process and the financial aid process, and they need to understand the personal attributes and academic skills required for a successful college experience.

Recommendations for high school staff. Administrators, school counselors, and teachers need to institute a paradigm shift if they are to better serve first-generation college-bound high school students. High school educators need to repeatedly encourage all students, especially first-generation college-bound students, to proactively think of their high school experience in terms of improving their likelihood of achieving their college goals. In high schools across the country, the 'college-bound' culture is present, but the day-to-day operations are focused on the staff members' personal job responsibilities, so that they often forget the 'big picture' of what the high school experience is aimed to provide for the students: preparation for the rest of their life, college-bound or not.

My recommendation for the school staff members is that they actively relate what their students are learning each day to how the knowledge is applied in the real world and how it lays the foundation to what they will be exposed to in college or in the workforce. For example, most Advanced Placement teachers are constantly overwhelmed with the amount of material they are responsible for teaching. They feel constantly pressured to immerse their AP students in the content so they will be able to earn college credit, that they oftentimes forget to talk to their students about why the material is important or about the students' college plans. It is vital for first-generation college-bound students to have their teachers bridge the gap between the high school curriculum and college success. Rather than focusing solely on teaching their students to score well on a test, teachers need to make more of an effort to communicate with their students about their future goals. First-generation students do not have the opportunity to talk to their parents about their own college experiences, so administrators, counselors, and teachers are the trusted adults they need to talk with about college. They are the ones who can give the skills necessary and keep students motivated about the process of life-long learning. All high school educators need to ask about their students' post-secondary plans while providing academic challenges, to allow their students to advocate for themselves. That way, students can enjoy their accomplishments and look forward to the ones to follow as they persist toward college graduation.

Recommendation for parents of college-bound first-generation students. As this study indicated, successful first-generation college students need to be fully prepared to thrive on a college campus. They should be equipped with the personal characteristics, academic behaviors, and life skills necessary to persist toward graduation. As the study

participants pointed out, the educational foundation and social skills they developed during high school transferred to college and influenced their college success. Therefore, high school parents, especially those who never experienced college themselves need to take their children on several college visits to gain a realistic perception of the progression from high school to college success. As a high school counselor, the researcher has witnessed too many parents who allow their college-bound children to enroll in 'easy' classes to acquire a good GPA or drop classes that they struggle in, rather than encouraging them to seek assistance and master college preparatory courses. Almost all parents want their children to have a college degree, but not all parents have the growth mind-set philosophy to urge their children to challenge themselves academically in high school, for more favorable odds to earn a college degree. The researcher has witnessed a similar disconnect as a high school coach, when athletes want to earn an athletic scholarship to attend a college, but they are unable to get accepted into college because of their lack of academic credentials.

Recommendation for future first-generation college students. Future first-generation students need to know the harsh reality they are facing. The NCES reported that 30% of college freshmen drop out and only 38% of college freshmen graduate within four years (NCES, 2015, p. 144). The researcher's recommendation for future first-generation college students is to prepare for the academic rigor of college and participate in a few extracurricular activities. The researcher believes participation in high school athletics is a great way to improve interpersonal and educational outcomes during high school as well as enhance the characteristics and behavioral skills necessary to succeed in college. However, the main ingredient for persistence to college graduation is academic

preparedness and determination. All college-bound high school students need to take honors courses and AP classes, not only because of the incentive to earn a weighted grade, but to challenge themselves academically before they move away from home and enroll in college full-time, spending thousands of dollars. This practice allows students to test the waters of college-level academic rigor at a minimal cost, while they have access to familiar and supportive high school educators. When students wait to take demanding classes until they are in college, they will most likely not a have unfavorable outcome.

Another recommendation for future first-generation college students, or for those high school students who want to go to college but cannot afford it or are not accepted into a university right away, is to attend a local community college or vocational school, an option that helps bridge the college gap for first-generation college students. Earning a less expensive college degree close to home is a great option, for all high school graduates, not just first-generation students. Earning an associate's degree typically takes two years and drastically improves potential career options, leads to higher wages, and makes the transfer to a university more affordable. The Center for Community College Student Engagement (2015) has reported that nationally 47% of first-generation students transfer to a four-year college (Smith, 2015, para. 8). As a high school counselor, the researcher constantly explains the benefit of an associate's degree and the options thereafter. As mentioned before, the Missouri A+ Scholarship Program is an excellent option for all Missouri students, especially future first-generation students, to go to college free of the cost of tuition. After earning an associate's degree, students may

transfer to a university in pursuit of a bachelor's degree or join the workforce with a higher wage than if they started working full-time with just a high school diploma.

No matter what their parents' level of education, college-bound students must be encouraged to seek out advice, challenge themselves academically, and have a realistic view of what it takes to earn a college degree. Research has shown that student intentions and attending college do not predict college completion (Gibbons & Borders, 2010). That is why the high school experience and what is taught in those four years is vital to college success and beyond. By having a more proactive approach and providing the college-bound students and their parents with the assistance they need in the college process, perhaps the dismal 25% first-generation college student completion rate, might improve.

Recommendations for athletic directors and coaches. After researching this topic thoroughly, the researcher finds it very surprising that high school administrators, athletic directors, and coaches nationwide are not being more vocal about the academic benefits of participating athletics. The researcher's recommendations for athletic directors and coaches include embracing the academic role of student-athletes and assume that they are all college bound, as well as taking a special interest in those who are future first-generation college students. Coaches need to set a high level of academic expectations on their teams, above the minimal standards set by the governing body, which in turn will elevate their academic focus and later allow the students to succeed during college. Many coaches already do this, but all coaches should communicate with their athletes and act in ways that promote their athletes' academic responsibilities and inspire athletes to take college preparatory classes, rather than lower level classes that

will not help them succeed in college. Head coaches could appoint assistant coaches to conduct weekly grade checks, hold mandatory study halls for students who are struggling, and bench students who fall behind until they get caught up.

Additionally, the researcher recommends that coaches document, track, and promote their athletes' academic success as much as they promote their sports statistics. An example could be to have a '24 Club' of those athletes who have also scored a 24 or above on the ACT or recognizing the 'Division I Team' for those athletes who meet the academic D.1 eligibility standards, regardless of whether they have the athletic talent to play on a Division 1 team. Most varsity high school athletes go to college, so guiding them for college success only makes sense. Over time, great high school coaches would be able to add a segment to their recruitment process and in their correspondence to the parents and community by publicizing the academic benefits of participating in their athletic program.

The National Federation of State High School Associations estimated that 55.5% of all high school students play at least one sport at some point during ninth-12th grade, but report only a small percentage continue to participate during all four years of high school (Kelley & Carchia, 2013, p. 7). In the researcher's experience as a long-time high school coach, females and potential first-generation college-bound students quit participation in athletics at a faster rate than their peers. There is a dramatic drop-off in high school athletic participation between the freshman and sophomore years. Therefore, another aspect of the recommendation would be to educate students and parents about the possible long-term academic benefits in athletic participation all four years of high school. This may convince more females, future first-generation college students, and

the less skilled athletes to participate all four years. As this study demonstrated, varsity-level athletics enhance the characteristics, behaviors, and life skills necessary to start college with the grit needed to earn a college degree in a timely manner.

As evidence of the last recommendation, the focus group participants indicated that their experience in athletics also involved having positive academic role models to look up to as well as the leadership experience they gained as they became varsity-level student-athletes. Almost every successful first-generation college student in the study, mentioned the powerful influence of their coaches and teammates. Their coaches had inspired them to become well-rounded student-athletes by being aware of their postsecondary futures and assisting them to reach their college goals. Quality coaches are vital to the success of so many, so my recommendation is that high school coaches should be recognized and paid as exceptionally important members of the school community. A high school coach's responsibility goes beyond a win-loss record, and the number of hours coaches work for the betterment of their athletes is remarkable. As the study participants expressed, coaches are oftentimes role models, surrogate parents, and life coaches, especially for first-generation college-bound students. As in the researcher's own high school experience, a student-athlete's 'athletic family,' including coaches and teammates, can often influence the outcome of that athlete's life beyond high school graduation.

Recommendations for Future Research

Prior research has explored the relationship between involvement with high school athletics and positive educational outcomes for students who participate on school-sponsored athletic teams while in high school. My investigation expanded that

idea to first-generation college students who have the desire to pursue a bachelor's degree to secure a career path that ensures higher wage-earning potential and overall life satisfaction. This study provided a foundation for future research on this topic.

My general recommendation is that more studies should be conducted on first-generation college students who persist to college graduation, and more need to focus on the long-term academic benefits of participation in high school sports as it relates to college degree completion. I targeted first-generation college students because that population was specifically interesting to the researcher, but a similar study could be conducted using all former athletes. As the researcher designed the study, a hunch was that the academic gains through participation in high school athletics would perhaps be more noticeable utilizing first-generation college students at two check-points along their pursuit to earn a bachelor's degree.

This study linked the possible academic benefits of participation in high school athletics to first-generation college student success at one private university, utilizing a small sample size. Therefore, a primary recommendation would be to duplicate the aim of this study on a much larger scale, at multiple universities and community colleges in diverse parts of the country. This study only explored the perceptions of successful first-generation college students who were former high school athletes, but future research could investigate the unsuccessful college students. Or a study could discover academic benefits from high school athletes' perspectives and facilitate focus groups with coaches and parents. Another idea for future research would be to follow an athletic cohort from high school to college, measuring their academic achievements along the way at multiple colleges. Potential future research is limitless, which adds to the importance of it.

The only problem the researcher encountered while conducting the study was gaining access to first-generation students, who fit the definition specifically. After the e-mail invitations were sent to potential participants, the researcher realized 30 potential study participants that completed the online survey, had to be eliminated from the participant pool because they did not meet the specific criteria for this study. As mentioned earlier, some potential participants considered themselves first-generation students because neither of their parents completed college, but they were eliminated from the study because they indicated their parent(s) had college experience but never completed a degree. If the study was to be replicated, the invitation to participate would clarify the definition of *first-generation* so that those 30 students would have eliminated themselves prior to completing the survey.

A specific recommendation for future research for the Missouri State High School Activities Association (MSHSAA) and other state associations, which do not have adequate data about the academic benefits or negative consequences of athletic participation. When the researcher started this study, she explored the *MSHSAA Handbook* and the website for any resources they had available or any studies they had conducted about the academic benefits of participation in extracurricular activities in the state of Missouri, but found nothing. So, the researcher called MSHSAA and asked for any resources they had and multiple employees said they did not collect or analyze such data. That is hard to believe and frankly unacceptable. To better serve our youth, MSHSAA should work with the Missouri Department of Education and collect, track, and publish data.

Perhaps they could conduct a longitudinal study or mimic the study, referenced in the literature review, conducted by Lumpkin utilizing data from the 2008-2009 school year. Utilizing data from the Kansas State Department of Education, her team analyzed the academic benefits of participation in high-school-sponsored sports, by comparing academic achievements of athletes to nonathletes, which produced many positive findings. In summary, positive differences between athletes and nonathletes were found for males and females across all academic measures. Most notably, 97.6% of the high school athletes graduated from high school compared to 88.1% of their nonathletic peers (Lumpkin & Favor, 2012, p. 48). Consequently, Lumpkin's study provided evidence of the positive effect that participation in sports has on those who participate. Thus, more state funding was made available to high schools in Kansas, more students were encouraged to participate, and most importantly more students benefited.

Conclusion

The purpose of this mixed-methods study was to investigate ways in which participation in high school varsity athletics affected academic success of first-generation college students at SPU. Prior research correlated the relationship between participation in high school athletics to improved school attendance, grades, and graduation rates while the athletes were enrolled in high school (Lumpkin & Favor, 2012, p. 41). However, few studies have explored the long-term academic benefits of high school athletics in terms of bachelor's degree completion. Therefore, this study was designed to explore the quantitative and qualitative aspects of successful first-generation students at SPU who had been high school varsity-level athletes.

In sum, this study provided evidence that participation in high school varsity athletics made a statistically significant difference during high school and in college success for first-generation college students who had been high school varsity athletes. The study compared academic achievements of former high school varsity athletes to college athletes and nonathletes. Results of the study revealed former high-school-only athletes had higher final high school GPAs and higher college GPAs after two semesters of college than their college athlete counterparts and nonathletic peers. The high-school-only athletes also graduated from college in few semesters than either of the other two groups. The qualitative portion of the study also pinpointed personal characteristics, behaviors, and life skills enhanced through participation in high school varsity athletics that have contributed to positive college outcomes, for the first-generation participants as they pursue earning a bachelor's degree within six years of high school completion.

The results of this mixed-methods study indicated a possible relationship between participation in varsity high school athletics and successful first-generation college transition to college and persistence to graduation. As the study participants expressed, their participation in varsity level athletics assisted them to be academically prepared for college when they arrived and self-confident that they would one-day become first-generation college graduates. This researcher believes more future first-generation college students should participate in school-sponsored athletics alongside their teammates for all four years of high school, not necessarily with the motivation of more playing time or to secure an athletic scholarship, but to enhance the personal characteristics, academic focus, and resiliency that may help them graduate from college.

References

Abramson, H. J. (1995). *Survey methods in community medicine*. New York, NY: Churchill Livingstone.

Atwater, L. E., & Yammarino, F. E. (1993). Personal attributes as predictors of superiors' and subordinates' perceptions of military academy leadership. *Human Relations, 46,* 645-668.

Barber, B. L., & Eccles, J.S. (1999). Student council, volunteering, basketball, or marching band: What kind of extracurricular involvement matters? *Journal of Adolescent Research, 14*(1), 10-43.

Baxter, S. G. (1936). Intelligence and the extra-curricular activities selected in high school and college. *The School Review*, *44*(9), 681-688.

Blau, P. M. (1964). *Exchange and power in social life* (pp. 1-11). New York, NY: Transaction Publishers.

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, *32*(7), 513.

Bukowski, B. J. (2010). A comparison of academic athletic eligibility in interscholastic sports in American high schools. *The Sport Journal, 13*(2).

Carlson, D., & Scott, L. (2005). Statistics in brief. *What is the status of high school athletes 8 years after their senior year?* National Educational Longitudinal Study of 1988.

Center for Community College Student Engagement. (2015). Retrieved from http://www.insidehighered.com/new/2015

Characteristics. (2016). In Merriam-Webster.com. Retrieved November 6, 2016 from

http://www.merriam-webster.com/dictionary/characteristics

Chen, C., Snyder, S., & Magner, M. (2010). The effects of sport participation on student-athletes and non-athlete students' social life and identity. *Journal of Issues in Intercollegiate Athletics*, 3, 176-193.

Choy, S. (1998). *First generation students: Undergraduates whose parents never enrolled in postsecondary education.* Washington, DC: U.S. Department of Education, Office of Educational Research Improvement.

College Handbook 2016. (2015). *College handbook* (53rd ed., p. 696). New York, NY: The College Board Publications.

College Navigator. **(**2016). Lindenwood University. Retrieved from https://nces.ed.gov/collegenavigator/?q=Lindenwood+University&s=MO&id=177968.

Concordia University. (2012, November 2). *First generation college students graduation rates*. Retrieved from http://education.cu-portland.edu/blog/reference-material/first-generation-college-students-graduation-rates

Conn, S. (2012, April 15). In college classrooms, the problem is high school athletics. *The Chronicle of Higher Education*, 21-24.

Cornelius, A. E. (1999). *Development and validation of the athletic identity measurement scale.* Paper presented at Annual Conference for Athletic Counseling, Springfield College, Springfield, Massachusetts.

Darling, R., & Smith, M. (2007). First-generation college students: First year challenges. *Academic advising: New insights for teaching and learning in the first year,* 14, 203-211.

Duckworth, A. L. (2016). *Grit: The power of passion and perseverance*. New York, NY: Scribner.

Duckworth, A. L., & Gross, J. J. (2014). Self-control and grit: Related but separable determinants of success. *Current Directions in Psychological Sciences*, *23*(5), 319-325**.**

Dweck, C. S. (2006). *Mindset: The new psychology of success*. New York, NY: Random House.

Educational Corner, Education that Matters. (2016). *Extracurricular activities*. Retrieved from http://www.educationcorner.com/k12-extracurricular-activities.html

Efficacy. (2016). In Merriam-Webster.com. Retrieved November 5, 2016 from http://www.merriam-webster.com/dictionary/efficacy.

Engle, J., & Tinto, V. (2009). *Moving beyond access: College success for low-income, first generation students.* Washington, DC: Pell Institute for the Study of Opportunity in Higher Education, Retrieved from ERIC database.

Engstrom, C., & Tinto, V. (2008). Access without support is not opportunity. *Change*, *40*(1), 46-50.

Feldman, A. F., & Matjasko, J. L. (2005). The role of school-based extracurricular activities in adolescent development: A comprehensive review and future directions. *Review of Educational Research, 75*(2), 159-210.

Fox, C. K., Barr-Anderson, D., Neumark-Sztainer, D., & Wall, M. (2010). Physical activity and Sports team participation: Associations with academic outcomes in middle school and high school students. *Journal of School Health, 80*, 31-37.

Fraenkel, J. R., & Wallen, N. E. (2009). *How to design and evaluate research in education* (7th ed). Boston, MA: McGraw Hill Higher Education.

Freking, K. (2016). *US graduation rate hits record high, but test scores continue to decline.* Associated Press. Retrieved from http://www.statesboroherald.com

Gardner, R. B., & Musselman, G. (2016, October). #MyReasonWhy addresses benefits of high school activity programs. *High School Today*, p. 1.

Gerber, S. B. (1996). Extracurricular activities and academic achievement. *Journal of Research & Development in Education*, *30*(1), 42-50.

Gibbons, M. M., & Borders, L. D. (2010). Prospective first-generation college students: A social-cognitive perspective. *Career Development Quarterly, 58*(3), 194-208.

Hadfield, J. (2007). Youth & society. *Girls + High School Sports=College Graduation.* Retrieved from http://newsbyu.edu/byu-study-girls-high-school-sport-college-graduation

Holland, A., & Andre, T. (1987). Participation in extracurricular activities in secondary school: What is known, what needs to be known? *Review of Educational Research*, *57*(4), 437-466.

Ishitani, T. (2006). Studying attrition and degree completion behavior among first-generation college students in the United States. *Journal of Higher Education*, *77*(5), 861-885. Retrieved from ERIC database.

Jensen, B. (2004). Across the great divide: Crossing classes and clashing cultures. *What's class got to do with it?* (pp. 168-184). Ithaca, NY: Cornell University Press.

Justice, B. (2016, Fall). Is college worth it? Numbers show that staying in school pays off. *My Majors,* pp. 10-11.

Kelly, B., & Carchia, C. (2013, July 11). "Hey, data, data, swing!" Hidden Demographics of Youth Sports. *ESPN Magazine*. Retrieved http://www.espn.com/espn/story/id/9469252/hidden-demographics-youth-sports-espn-magazine

Kennedy, R. (2008). The need for high school extracurricular activities. *Coach Athletic Director*, *78*(4), 38-39

Lacy, A. C., & Darst, P. W. (1985). Systematic observation of behaviors of winning high school head football coaches. *Journal of Teaching in Physical Education*, *4*(4), 256-270.

Ledbetter, B. (2015). *What drives winning* (p. 146). Dublin, Ireland: Green Dot Publishing.

Lipscomb, S. (2007). Secondary school extracurricular involvement and academic achievement: A fixed effects approach. *Economics of Education Review*, 26, 463-472.

Lumpkin, A., & Favor, J. (2012). Comparing the academic performance of high school athletes and non-athletes in Kansas in 2008-2009. *Journal of Sport Administration & Supervision, 4*(1), 41-62.

Missouri A+ Scholarship Program. (2016). Department of Higher Education. Retrieved from http://dhe.mo.gov./grants/aplusscholarship.php

Missouri Department of Elementary and Secondary Education. (2016). High School Graduation Requirements. Retrieved from https://dese.mo.gov/quality-

schools/graduation-requirements.

Missouri State High School Activities Association Official Handbook. (2016a). *Academic Requirements Grades 9-12*. pp. 42-43.

Missouri State High School Activities Association Official Handbook. (2016b). *Statement of Philosophy*. p. 18.

Murphy, C., & Hicks, T. (2006). Academic Characteristics among first-generation and non-first generation college students. *College Quarterly, 9*(2). Retrieved from ERIC database.

National Association of Intercollegiate Athletics. (2016). Fast Facts. Retrieved from https://www.playnaia.org.

National Center for Educational Statistics. (2012). *Digest of Education Statistics, 2012.* National Statistics for College Attendance/pdf

National Center for Educational Statistics. (2014). *Digest of Education Statistics, 2014*. Retrieved from https;//nces.ed.gov/programs/digest/d14

National Center for Educational Statistics. (2015). *The Condition of Education 2015*. Institute of Education Statistics, 20-92.

National Collegiate Athletic Association. (2016). Fast Facts. Retrieved from https://www.ncaa.org

National Education Longitudinal Study. (1988). Retrieved from https://nces.ed.gov/surveys/nels88/index.asp

National Federation of State High School Association. (n.d.). Mission Statement. Retrieved from http://www.hfhs.org/content.aspx?id=3264

National Federation of State High School Association. (2008). The case for high school

activities. Retrieved from http://www.nfhs.org/content.aspx?id=3262

National Federation of State High School Association. (2016a). Who we are and my reason why. Retrieved at http://www.mpssaa.org/mpssaa-continues-the-myreasonwhy-campaign-with-nfhs

National Federation of State High School Association. (2016b). Athletic Participation Summary/pdf/2014-2015. Retrieved from http://www.nfhs.org/participationstatistics.aspx

New, J. (2014). More Athletes get to the Finish Line. *Inside Higher Ed.* Retrieved at https://www.insidehighered.com/news/2014/10/29/graduation-rates-athletes-hit-record-high

Nunez, A. M., & Cuccaro-Alamin, S. (1998). First-generation students: Undergraduates whose parents never enrolled in postsecondary education. *Statistical Analysis Report*, CES 98-082. Washington, DC. Retrieved September 7, 2016 from http://ces.ed.gov/pubs98/9802.pdf

Odds of a High School Athlete playing College Sports. (2016). Retrieved from http://www.scholarshipstats.com/varsityodds.html

Opidee, I. (2015, March). Supporting first-gen college students. *University Business Magazine*, Retrieved from http://www.universitybusiness.com/article/supporting-first-gen-college-students.

O'Shaughnessy, L. (2013). *The realities of athletic scholarships*. Retrieved from http://www.thecollegesolution.com/the-realities-of-athletic-scholarships.

Otten, M. (1977). Inventory and expressive measures of locus of control and

academic performance: A 5-year outcome study. *Journal of Personality Assessment, 41*(6), 644-649.

Packard, E. (2007, November). Grit: It's what separates the best from the merely good. *American Psychological Association* in brief, *38*(10).

Padron, E. J. (1992). The challenge of first-generation college students: A Miami-Dade perspective. *New Directions for Community Colleges*, 80, 71-80.

Pascarella, E. T., Pierson, C. T., Wolniak, G.C., & Terenzini, P. T. (2004). First-generation college students. *Journal of Higher Education*, 75, 249-249.

Pascarella, E. T., & Smart, J. C. (1991). Impact of intercollegiate athletic participation for African American and Caucasian men: Some further evidence. *Journal of College Student Development*, *32*(2), 123-130.

Persico, N., Postlewaite, A., & Silverman, D. (2004). The effect of adolescent experience on labor market outcome: The case of height. *Journal of Political Economy*, 112, 1019-1053.

Ramos-Sanchez, L., & Nichols, L. (2007). Self-efficacy of first-generation and non-first-generation students: The relationship with academic performance and college adjustment. *Journal of College Counseling*, *10*(1), 6-18.

Rubinoff, M. (2016). *I'm first*. Center for Student Opportunity. Retrieved at http://www.imfirst.org/2016 and http://www.imfirst.org/2016/05/cso-announces-merger-with-strive-for-college

Rudd, A. (2005). Which "character" should sport develop? *Physical Educator.* Winter 62(4)1-10.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of

intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68.

Ryska, T. (2002). The effects of athletic identity and motivation goals on global competence perceptions of student athletes. *Child Study Journal,* 32(2)109-111.

Seligman, M. E., & Csikszentmihalyi, M. (2014). *Positive psychology: An introduction* (pp. 279-298). Springer Publishing, Netherlands.

Shulruf, B. (2011). Do extra-curricular activities in school improve educational outcomes? A critical review of meta-analysis of the literature. *International Revue Education*, *56*(1), 593-612.

Smith, A. (2015). Who are first-generation students and how do they fare? Retrieved from https://www.insidehighered.com/print/news/2015/11/10

State Higher Education Executive Officers. (2015). *Finance Report* Retrieved from http://www.sheeo.org/sites/default/files/SHEEO_SHEF_FY2015.pdf

Statistic Brain. (2015). Youth Sports Statistics. *US Today Survey*. Retrieved from http://www.statisticbrain.com/youth-sports-statistics.

Stevenson, B. (2010). Beyond the classroom: Using title IX to measure the return to high school sports. *The Review of Economics and Statistics,* 92, 284-301.

Study University. (2016). Office of Institutional Research 2016-2017. Retrieved November 10, 2016 from http://www.lindenwood.edu/academics/docs/institutionalresearch/LindenwoodLedger1016/final.pdf

Swanson, J. A., Kowalski, K. B., Gettman, H. J., & Lee, J (2012). Leadership

characteristics and title IX: A possible mechanism for the impact of sports participation on work outcomes. *International Leadership Journal,* 4, 40-61.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition.* (2nd ed). Chicago, IL: University of Chicago Press.

Toutkoushian, R. K., & Smart, J. C. (2001). Do institutional characteristics affect student gains from college? *The Review of Higher Education, 25*(1), 39-61.

True grit. (2013, May 9). *Diverse Issues in Higher Education*. p. 10.

University of Missouri. (2016). *Freshman Admission Requirements.* Retrieved from https://admissions.missouri.edu/apply-freshmen/admission-requirements.

U. S. Census Bureau, Bureau of Labor Statistics. (2013). *Educational Attainment.* Retrieved from https://www.bls.gov/emp/educational attainment/salaries

U.S. Department of Education (2015). *Beyond High School Diplomas: Educators Aim Toward College Completion.* Retrieved from http://blog.ed.gov/2015/03/beyond-high-school-diplomas-educators-aim-towards-college-completion

U.S. Department of Education, National Center for Educational Statistics. (2004-2009). *Beginning Postsecondary Students Longitudinal Study, 2004–2009*. Retrieved from https://catalog.data.gov/dataset/2004-beginning-postsecondary-students-longitudinal-study

Whitley, R. L., & Pressley, J. (1995). *A comparison of the educational performances of athletes and nonathletes in 133 North Carolina high schools.* (Doctoral dissertation). Department of Education, East Carolina University, Greenville, North Carolina.

Wong, A. (2016, January). Where are all the high school grads going*? The Atlantic.* Retrieved from http://theatlantic.com/education

Woosley, S. A., & Shepler, D. K. (2011). Understanding the early integration experiences of first-generation college students. *College Student Journal*, *45*(4), 700.

Zwart, M. (2006). An assessment of the perceived benefits of extracurricular activity on academic achievement at paramount high school. *Academic Leadership Journal,* 5(1), 48-50.

Appendix A

NCAA Requirements for High School Students

NCAA Core Courses for Division I and Division II

Division 1	Division 2
Minimum of a 2.3 core GPA	**Minimum of a 2.0 core GPA**
4 years of English	3 years of English
3 years of math (Algebra I and higher)	2 years of math (Algebra I or higher)
2 years of natural/physical science	2 years of natural/physical science
1 year of an additional English, math, or science	3 years of additional English, math, or science
2 years of social sciences	2 years of social sciences
4 years of addition approved core courses (any of the above, foreign language or comparative religion/philosophy)	4 years of additional approved courses (any of the above, foreign language or comparative religion/philosophy)

Note. The NCAA eligibility clearinghouse annually approves high school core courses, per high school.

NCAA Division 1 Academic Requirements Then and Now

	Before August 1, 2016	After August 1, 2016
Min. core course GPA	2.0	2.3
Total core course credits	16	16
Core credits required prior to senior year	N/A	10
English, math, science credits prior to senior year	N/A	7
Minimum SAT	1010+	DI—sliding scale*
Minimum ACT (sum)	86+	D1—sliding scale*

NCAA Division 1 Full Qualifier Sliding Scale Examples

Core Course GPA	SAT (Reading/Math)	ACT Sum Score (Add English, math, reading, and science subscores)
3.55	400	37
3.25	520	46
3.0	620	52
2.75	720	59
2.5	820	68
2.3	900	75

Note: www.eligibilitycenter.org

NCAA Division II Academic Requirements Then and Now

	After August 1, 2016	2017	2018
Minimum core course GPA	2.0	2.0	2.2
Total core credits	16	16	16
Minimum SAT	820	sliding scale	sliding scale
Minimum ACT (sum score)	68	sliding scale	sliding scale

Note: www.eligibilitycenter.org

Appendix B

Email Invitation to Participate

Hello,

My name is Connie Litzsinger. I am a Lindenwood University doctoral candidate conducting research about first-generation college student persistence to earn a bachelor's degree within six years after graduating from high school. You have been sent this invitation to participate in my study because you are a first-generation college student, a 2015 high school graduate and have successfully returned to Lindenwood University for your second year.

If you meet the above-mentioned criteria, I would like to invite you to complete the attached Adult Consent Form and five-minute survey. Additionally, if you were a high school varsity athlete I would like to invite you to participate in an hour-long focus group. If you are willing, please provide your contact information at the end of the survey. Focus Group participants will be compensated for their time with a $20 gift card to a local merchant.

As a first generation college graduate myself, this research study is extremely important to me.

Thank you for your time and good luck pursing your bachelor's degree,

Connie Litzsinger

Appendix C

Adult Informed Consent

LINDENWOOD

ADULT - INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

"Investigating the Possible Relationship Between High School Athletic Participation and First Generation College Student Persistence to College Graduation.

Principal Investigator: Connie Litzsinger

Telephone: 636-577-1708 E-mail: CJL872@lionmail.lindenwood.edu

Participant: Campus Email _____@lionmial.lindewood.edu

(Optional) Phone number if participant is willing to participate in a focus group:

1. You are invited to participate in a research study conducted by doctoral candidate, Connie Litzsinger under the guidance of Dr. Stephen Sherblom, Associate Professor-School of Education, Lindenwood University. The purpose of this research is to investigate the ways in which participation in high school athletics positively impacts academic success of first generation college students.

2. a) Your participation will involve:

   - Completion of the 5 minute attached demographic survey for first generation college students, both second year LU students and 2016 LU graduates.
   - Optional, voluntary participation in a one-hour focus group on the LU campus. Participants of the focus groups will be compensated for their time with a $20 gift card to a local merchant.

   b) The amount of time involved in your participation of this research study:

- Approximately 5 minutes for the electronic demographic survey.

- Optional, participation of a focus group lasting 1 hour.

3. There are no anticipated risks associated with this research.
4. There are no direct benefits for you participating in this study. However, your participation will contribute to data about first generation college student perceived long term academic impact of participating in high school athletics.
5. Your participation is voluntary and you may choose not to participate in this research study or to withdraw your consent at any time. You may choose not to answer any questions that you do not want to answer. You will not be penalized in any way should you choose not to participate or to withdraw.
6. We will do everything we can to protect your privacy. As part of this effort, your identity will not be revealed in any publication or presentation that may result from this study and the information collected will remain in the possession of the investigator in a safe location. In some studies, using small sample sizes, there may be a risk of identification.
7. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, Connie Litzsinger (636-577-1708) or the Supervising Faculty, Dr. Sherblom (314-949-4759). You may also ask questions of or state concerns regarding your participation to the Lindenwood Institutional Review Board (IRB) through contacting Dr. Marilyn Abbott, Provost at mabbott@lindenwood.edu or 636-949-4912.

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my participation in the research described above.

_____		_____
Participant's Signature	Date	Participant's Printed Name
_____		Connie Litzsinger
Signature of Principal Investigator	Date	Investigator Printed Name

Appendix D

Demographic Survey-First Generation, Returning Second Year Students at SPU

1. Are you between the ages of 18-21?

YES

NO

2. What is your gender?

Female

Male

3. Did you graduate from a high school in 2015?

YES

NO

4. Did you graduate from high school in the St. Louis Metro area?

YES

NO

5. Did both of your parents graduate from high school?

YES

NO

6. Did your mother attend college directly after high school?

YES

NO

7. Did your father attend college directly after high school?

YES

NO

8. Do you have at least ONE older sibling?

YES

NO

9. If you have an older sibling, did he/she attend college?

YES

NO

10. Did you live on the LU campus during the 2015-2016 school year?

YES

NO

Other (please specify)

11. What is your declared major?

12. What is your projected year of college graduation?

2017

2018

2019

2020

2021

13. What was your final high school (weighted) grade point average?

above a 4.0

3.5-4.0

3.50-3.0

2.99-2.5

under 2.5

14. What is your cumulative GPA at Lindenwood after one year?

3.5-4.0

3.0-3.5
2.5-3.0
2.0-2.5
below 2.0

15. While in high school, what was your highest ACT composite score?
32-36
28-31
23-27
19-22
below 19

16. Have you been academically "successful" at LU?
YES
NO

17. Briefly explain why you have been academically successful or not academically successful at LU.

18. While in high school, did you participate on any high school athletic teams?
YES
NO

19. If you participated in a high school sponsored sport, please indicate the sport (s) you played:
Baseball
Basketball
Cross Country
Football
Golf
Hockey

Lacrosse
Soccer
Softball
Swimming & Diving
Tennis
Track & Field
Volleyball
Wrestling
Other (please specify)

20. If you participated in high school athletics, please indicate to what extent you were involved:
Freshman Year Only
Junior Varsity (2-3 years)
Varsity (3-4 years)
Elite High School Athlete: Varsity Captain, State Qualifier, Most Valuable Player, Lindenwood University Athlete

21. If you participated in high school athletics, are you willing to participate in a one hour focus group? ($20 Gift Card)
YES
NO

22. Please provide your contact information if you are willing to participate in a focus group.

Appendix E

Demographic Survey-First Generation, SPU Seniors

1. Are you between the ages of 21-25?

YES

NO

2. What is your gender?

Female

Male

3. Did you graduate from a high school in the St. Louis Metro area?

YES

NO

4. Is Lindenwood University the only college you have attended full-time?

YES

NO

5. Did both of your parents graduate from high school?

YES

NO

6. Did your mother attend college directly after high school?

YES

NO

7. Did your father attend college directly after high school?

YES

NO

8. Do you have at least ONE older sibling?

YES

NO

9. If you have an older sibling, did he/she attend college after high school?

YES

NO

10. What is your declared major?

11. When will you complete your bachelor's degree?

December 2016

May 2017

August 2017

December 2017

12. What year did you graduate from high school?

Before 2010

2010

2011

2012

2013

2014

2015

13. What was your final high school (weighted) grade point average?

above a 4.0

3.5-4.0

3.50-3.0

2.99-2.5

under 2.5

14. What was your highest ACT composite score during high school?

32-36

28-31

23-27

19-22

below 19

15. What is your current overall GPA at Lindenwood?

3.5-4.0

3.0-3.5

2.5-3.0

2.0-2.5

below 2.0

16. How many total semesters will it take for you to earn your bachelor's degree?

less than 8

8

9

10

11

12

more than 12

17. As a first-generation college student, briefly explain why you have been academically successful or not academically successful.

18. While in high school, did you participate on any high school athletic teams?

YES

NO

19. If you participated in a high school sponsored sport, please indicate the sport (s) you played:

Baseball

Basketball

Cross Country

Football

Golf

Hockey

Lacrosse

Soccer

Softball

Swimming & Diving

Tennis

Track & Field

Volleyball

Wrestling

Other (please specify)

20. If you participated in high school athletics, please indicate to what extent you were involved:

Freshman Year Only

Junior Varsity (2-3 years)

Varsity (3-4 years)

Elite High School Athlete: Varsity Captain, State Qualifier, Most Valuable Player

Lindenwood University Athlete

21. If you were a high school athlete, are you willing to participate in a one hour focus group? ($20 Gift Card)

YES

NO

22. Please provide your contact information if you are willing to participate in a focus group.

Appendix F

Focus Group Script

November 9, 2016 (LU Library, Study Room #1)

Thank you for making the time to be here today.

I appreciate your anonymous participation in my study about first generation college students who were high school varsity athletes.

I will be audio-recording our conversation, but your identities will never be known.

The open-ended questions I will be asking you are probably questions you have never thought about or talked about before, so let's explore your perceptions together. There are no right or wrong answers.

Answering these questions is completely voluntary, you have permission not to answer any question you don't want to or those you don't have a specific opinion.

We will respect each other's privacy and diversity.

The goal of this focus group is to get a variety of opinions and feedback on each question, by multiple people before moving on.

The results of my study will be published in my dissertation, which should be completed next semester.

We will be done in no more than an hour, by 4:30 or 6:00.

Are there any questions before I ask the first question?

Focus Group Questions:

First-Generation College Students-Former High School Athletes

In what ways, did participating in varsity athletics help you succeed academically during high school?

What did you gain by participating in high school sports?

Looking back, how do you think your experience as a high school varsity athlete changed you?

To answer my RQ2:
In what ways did your high school teammates and coaches influence your decision to go to college? (Follow up: Who inspired you the most to pursue a college education?)

To answer my RQ1:
How do you do think your high school student-athlete experience prepared you for college?

It's my understanding you are all first-generation college students, what does that mean to you?

Around the time, you were deciding to go to college---what made you believe you could be a successful?

"Athletic Identity" refers to the degree to which a person identifies with an athletic role as part of their self-concept and shows how one's athletic involvement and experience can affect the person psychologically and cognitively."

How does you "athletic identity" affect you at LU?

Did your "athletic identity" play any role in bringing you to Lindenwood?

To answer my RQ3:
How do you think your athletic identity influenced your choice of college major?

What negative aspects of high school athletics did you experience?

"Growth Mindset" is when a person believes that intelligence can be developed by embracing challenges, hard work and believes intelligence can change with hard work. What are your thoughts about the growth mindset philosophy as it relates to your past athletic and your current academic success?
For those of you who are on an athletic team at Lindenwood, would you have attended

LU without your involvement in sports?

Do you feel your athletic participation is an extension of high school or separate?

That concludes my questions, does anyone have anything to add that I did not ask?

Vitae

Connie Litzsinger has a 25-year professional history in the field of education. She has been a physical and health education teacher, track and basketball coach, college advisor, and high school counselor. As a current College and Career Planning Counselor and Missouri A+ Scholarship Program coordinator, Litzsinger's primary responsibilities is to serve high school juniors and seniors as they decide their post-secondary plan. She has also enjoyed coaching track and field at her high school alma mater for 20 years.

Litzsinger has an earned Bachelor of Arts degree in Physical and Health Education from the University of Missouri-Columbia. She also has earned a Master's of Arts Degrees in School Counseling and a Master's of Arts Degree in Educational Administration and anticipates completing her Administrative School Leadership Doctor of Education degree in May 2017 from Lindenwood University.