

THE EFFECT OF ATHLETIC PARTICIPATION ON ACADEMIC ACHIEVEMENT  
FOR HIGH SCHOOL SENIORS IN EASTERN TENNESSEE

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The Effect of Athletic Participation on Academic Achievement  
for High School Seniors in Eastern Tennessee  
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## **ABSTRACT**

David Gorman. The Effect of Athletic Participation on Academic Achievement for High School Seniors in Eastern Tennessee (under the direction of Judy Shoemaker, School of Education, Liberty University, 2010).

This causal-comparative study with a narrative component investigated the effect athletic participation on the academic achievement of senior student-athletes and non-athletes who attended three public high schools in Eastern Tennessee. The impetus for the study was the conflicting research as it relates to the impact athletics participation had on academic success at the college and high school levels. Through student athlete and non-athlete comparisons of ACT scores and GPAs, the researcher found athletic participation did not affect academic achievement for high school seniors who graduated in 2009 from the three target high schools when compared to non-athletes. However, statistically significant and extremely significant differences were found when the ACT scores and GPAs of the male and female student-athletes were compared. Data was also collected from the target high schools' teaching staffs. The Likert scale survey items and open-ended responses from the target high schools' teachers revealed the following regarding the academic achievement of senior student-athletes: the effect of athletic participation was positive, school systems directly affect the academic achievement of senior student-athletes, parental involvement directly affects academic achievement, athletic participation and academic achievement was important in the target school community, and the effect of athletic participation on the AYP measurement was positive.

*Key Words:* student-athlete, ACT, GPA, high school student, TSSAA, athletic participation and academic achievement

## Dedication

I dedicate this paper to my Lord and Savior who sustains me in all things.

His Grace, Mercy, Truth, and Love endure forever. Philippians 1:6

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## **Chapter 1: Introduction**

### **Introduction**

Fans of professional and college sports are provided with 24 hour comprehensive coverage of sporting events and news (Burgess, 2007). However, if Burgess stated if the sports on television are unsatisfactory fans can appease his or her sports fanaticism with on the chat rooms or message boards. Gehring (2004a) and Burgess found sports networks such as the Eastern Sports Networks (ESPN) carry the majority of important college and professional sporting events. However, Gehring concluded the increased television exposure is no longer relegated to college and professional sports. He found television coverage of high school sporting events are increasing. Unfortunately, Gehring concluded the athletic exposure results in high school sports becoming a business. When high school sports become a business, schools build stadiums worth tens of millions-of-dollars, and student-athletes are passed through class (Gehring). He stated these recent trends could affect the academic achievement of high school student athletes.

The concern regarding the academic achievement of high school student athletes is a manifestation of educational reforms. Clinchy (1998) concluded in the early 1980s public education underwent comprehensive national reforms aimed at producing numerical and empirical gains in student achievement. The educational reforms have infiltrated college athletics. For example, high school student-athletes who desire to play college sports, a minimum ACT score and GPA requirement must be achieved (NCAA Eligibility Center, 2009). Furthermore, if student athletes are not performing it could affect their graduation and a high schools' Adequate Yearly Progress (AYP)

measurement.

The AYP is a canon for which mandates that all students achieve state academic standards in at least Reading/Language Arts and Math (U.S. Department of Education Website, 2006). The urgency of addressing and correcting academic/athletic imbalances at schools is underscored by the estimated 7.4 million students who participated in high school athletics during the 2008 school year (Associated Press, 2008). Yancey (2007) concluded the increase of students participating in interscholastic sports is positive as athletics improve the overall high school experience for students.

However, McMillen (1991) concluded high school athletics are negatively impacting the achievement of students. McMillen asserted that student-athlete eligibility requirements are not adequate, and a discrepancy exists between athletic success and academic achievement. Gehring (2001) stated high school student-athletes are financially and academically exploited by schools and communities. The factors contributing to the exploitation of student-athletes are as follows: a) schools beholden to the financial rewards of sporting events and demonstrating academic neglect for student athlete academic achievement, b) parents seeking an athletic scholarship for their student-athlete, c) the expectations of community members and booster clubs to produce winning programs, d) The salaries for coaches and schools unsuccessful management of funds, e) the pressure student athletes are enduring from community members, family members (Cook, 2003; Burgess, 2007; Gehring 2004a).

Beem (2006) cited the pressure school districts encounter from parents and community members to produce winning programs. The pressure to win gives rise to lower academic expectation for student athletes. The National Association of State

Boards of Education (NASBE) concluded school systems must address and correct athletic and academic imbalances (Hoff, 2006).

Supporters of high school athletics refuted the negative effect of athletic participation on academic achievement. Reid (2005) stated high school athletic programs supplement the academic experience. Reid found participation in high school athletics galvanizes future academic and professional post-secondary success. Jones (2007) concluded a healthy balance between academics and athletics is achievable. Sitkowski (2008) cited the positive effects of athletic participation for student-athletes: self-discipline, self-confidence, lower dropout rates, and smaller percentages of drug and alcohol abuse.

### **Statement of the Problem**

The problem is conflicting viewpoints exist as to whether a student-athlete's academic achievement is affected as a result of participation in high school athletics. Gehring (2004a) cited a report conducted by the National Association of State Boards of Education (NASBE). The report found both the television coverage of high school sporting events and the corporate sponsorship of athletic teams was increasing. However, school leaders are not ensuring academic goals remain the top priority (Gehring, 2004a). Gehring (2001) concluded the unethical recruitment of student athletes and the excessive inducements provided to student athletes were negatively impacting the school's academic mission. A potential rationale was presented by Beem (2006) who stated sports at all levels is a big business. Unfortunately, in many communities high schools athletics are more important than academics (Beem). However, she stated school district superintendents and schools were capable of tempering the fervor for high school sports

teams. She encouraged superintendents and school boards to articulate an educational mission statement which stresses the roll of academics and athletics.

School districts and superintendents are often hesitant to address athletic imbalances within their school systems (Beem, 2006). Unfortunately, the academic achievement of student athletes could be negatively affected if school systems do not address their own actions and the actions of parents, coaches and community members (Beem, 2006; Gehring, 2004a; Obel-Omai, 2007; Virginia PTA, 2009). Beem found grades were altered and teachers were pressured to pass student athletes at several high schools. Stock and Solomon (2007) discussed the alleged academic improprieties at one high school. Solomon and Stock stated the success of the football team led to an in-season nationally televised show and national acclaim on the high school sports' landscape. Unfortunately, he found the allegations of grade tampering led to the eventual resignation of the head coach and unwanted negative publicity for the school system.

The emphasis placed on athletic achievement could affect the academic performance of student athletes individually as students are unable to attend college or succeed in the professional world (Gehring, 2004a). As it relates to overall school achievement and attainment of Adequate Yearly Progress (AYP), placing a greater emphasis on athletic achievement could negatively impact (AYP) as defined by the No Child Left Behind Act. AYP, as defined by the U.S. Department of Education Website (2006), is a state's measure of progress towards the goal of one hundred percent of students achieving state academic standards in at least Reading/Language Arts and Mathematics.

**Purpose**

The purpose of this causal-comparative study was to investigate the effect of athletic participation on academic achievement for senior male and female student-athletes. Federal and state educational mandates place unprecedented pressure on school systems to improve student test scores and classroom achievement. On a yearly basis, schools achievement scores provide tangible data for determining the success of the school. Student athletes who are planning to attend a four-year college are required to obtain defined a GPA and ACT score. The success or failure of the student athletes is a reflection of the school system, the teachers, and the students.

However, athletics are an integral part of the school and community - financially, socially, and culturally. Athletic and academic expectations present school administrators with the unenviable task of finding a balance between the two, or choosing one over the other. The goal of this study was to determine the effect of athletic participation on academic achievement for senior male and female student-athletes when compared to non-athletes. Additionally, the study compared the academic achievement of the male and female student-athletes in the areas of ACT scores and GPA. Lastly, the researcher incorporated teachers' open responses and Likert scale item responses to determine the effect.

**Situation to Self**

The effect of athletic participation on academic achievement is professionally relevant and applicable to the researcher. The researcher is currently a high school teacher and an assistant men's basketball coach at an NCAA institution. The researcher's high school coaching experiences in basketball and track gave rise to interactions with

parents and administrators who regarded athletics positively, negatively, and ambiguously. The researcher acknowledges athletic improprieties at the high school level. Beem (2006) found instances where student athletes' grades were changed thus athletic eligibility was unaffected. White (2005) found teachers were pressured by school officials to award passing grades to student athletes. Halley (2007) cited the findings of a federal judge, who found grade tampering and inexplicable exam, retake options for select student-athletes at one high school.

Beem (2006) identified potential reasons athletics have usurped academics. The author asserted school districts fail to provide a concise mission statement for the district, beginning with the superintendent. The National Association of State Boards of Education (NASBE) is clear on its position regarding high school athletics. The NASBE stated "An overemphasis on sports can undermine a high school's academic mission" (Hoff, 2006, p. 9). Hoff concluded a lack of school administrative restraint emboldens booster clubs to advance pro-athletic initiatives, but financial support is often unavailable for academic clubs and activities. Obel-Omia (2007) and Sailer (2007) discussed the trend of schools building palatial athletic complexes and paying exorbitant coaching salaries while the physical conditions of schools and classroom remain inadequate. The authors asserted facility upgrades and six-figure incomes for coaches send a conflicting message to students and community members regarding the importance of high school athletics.

### **Guiding Questions/Hypotheses**

Determining the effect of athletic participation on academic achievement for high school seniors in East Tennessee required the researcher to compare the achievement of both the senior student-athlete group (high school students who participated in at least

one high school sponsored athletic activity) and the non-athlete group (identified as students who did not participated in a high school sponsored athletic activity). The guiding questions and null hypotheses corresponded to the comparisons made between the two subgroups in the areas of ACT scores and grade point averages (GPA). For the senior student-athlete and non-athlete groups, the study compared the ACT and GPA scores. Lastly, the researcher conducted analysis regarding teacher perceptions as they relate to the effect of athletic participation on academic achievement. The Guiding Questions and corresponding null hypotheses were as follows:

1. What is the effect of athletic participation on academic achievement for senior (12<sup>th</sup> grade) student athletes when compared to the student population?

Ho.11: There will be no difference between the ACT scores of student-athletes and non-athletes who are members of their high school senior class.

Ho.12: There will be no difference between the GPA scores of student-athletes and non-athletes who are members of their high school senior class.

2. Is there a statistically significant difference between the senior (12<sup>th</sup> grade) male student- athletes and the senior female student-athletes?

Ho.21: There will be no difference in the ACT scores of both the male and female student-athletes who are members of their senior class.

Ho.22: There will be no difference in the GPA scores of both the male and female student-athletes who are members of their senior class.

3. In what ways do teachers perceive the effect (positive or negative) of athletic

participation on student achievement?

4. How does school system involvement as it relates to athletic participation affect the academic achievement of senior male and female student-athletes?
5. How does parental involvement affect the academic achievement of senior male and female student athletes?
6. How do the school and community perceive the importance of athletic participation and academic achievement?
7. How does athletic participation impact AYP status of the target school?

### **Definitions**

The researcher identified the following key terms which appeared often in the study.

1. *American College Testing (ACT)*: “The ACT test assesses high school students’ general educational development and their ability to complete college level work. The multiple choice tests cover four skill areas: English, mathematics, reading, and science” (American College Testing website, 2008).

2. *Grade Point Average (GPA)*: “The average obtained by dividing the number of grade points earned by the total number of credits attempted-called also quality point average” (Webster’s Online Dictionary, 1966). Research purported the grade point average was a stronger predictor of future academic success than ACT scores (Bleyaert, 2010).

3. *High school student*: For purposes of the study, a high school student is defined as one attending a school consisting of students in grades in 9-12 (www.wordiq.com). The study was composed of high school students who graduated in

2009 and possess the minimum graduation requirements defined by the state of Tennessee (Tennessee Department of Education Website, n.d.). The Department of Education required students to complete a minimum of 20 credits distributed in the following manner: three English credits, three science credits, three social studies, four math credits, and six electives. In the target school district, graduation required 28 credits. In addition, the Tennessee Department of Education requires passing scores on Gateway exams in English, Algebra, and Biology.

4. *High school student-athlete*: One who is a member of his/her school sponsored athletic team and competes in interscholastic athletic competition against other respective high schools (Olson, 2006). Olson concluded the athletic competitions “are not parts of the educational curriculum of the school” (p. 4). The researcher defines the student-athlete as one who participates on at least one school-sponsored athletic team governed by the Tennessee Secondary School Athletic Association.

5. *Tennessee Secondary School Athletic Association (TSSAA)*: The state governing high school athletics in the state of Tennessee (Sherman, 2007). The TSSAA handbook (2009-10) defines a team as “an entity comprised of one or more students in a school, under the control, and conduct of the school, which represents the school in interscholastic athletic competition (p. 6). For the purposes of this study, inclusion into the student-athlete subgroup requires membership and participation under the auspices of the TSSAA.

## Chapter 2: Review of Literature

### Introduction

The popularity of professional and major college athletes, and 24-hour sports networks demonstrate America's passion for sports (Burgess, 2007; Gehring, 2001). Burnett (2001) stated Plato found inherent value in athletics. Burnett stated Plato concluded athletes utilized cognitive skills in athletic competition. Butterfield and Brown (1991) and Fejgin (1994) concurred with Burnett's assertion pertaining to the cognitive benefits of sports competition. Furthermore, these authors found athletic participation developed discipline, diligence, responsibility, and teamwork. They asserted these attributes are invaluable resources to future educational and professional success for students.

To further support the positive aspects of high school athletics, Fejgin (1994) found high school athletic participation positively impacted educational achievement, job status, and earnings potential. Fejgin found the following: "Sport participation during the last two years of high school favorably affected 14 of 22 outcomes, including social and academic self-concept, educational aspirations, coursework selection, homework, reduced absenteeism, and college attendance" (p. 213). She concluded elements of athletic competition modeled the environment found in the business world. Fejgin encouraged schools to structure their academic and sports environments in a similar manner.

In contrast, research stated high school athletics negatively affected the achievement of student-athletes. Gehring (2004a), Halley (2007), Trubow (2006), and

Murphy (2008) concluded school systems placing a strong emphasis on athletics were plagued by a corporate perspective on athletics, disproportionate salaries between coaches and teachers, a novice and unqualified teaching staff, and undesirable teaching and learning environments. Cotton (1996) asserted balancing the demands of teaching and coaching is complex.

Factored into the research regarding the effect of athletics on academics was the role of vested groups - parents, school systems, and community members (Burgess, 2007). Cook (2003) found the potential for parents' and student athletes' desires for athletic scholarships and professional sports' contracts was pragmatic. Statistics underscored the remoteness and plausibility of becoming a professional athlete or achieving an athletic scholarship. Bracken (2007) and Kays (2005) revealed the following statistics regarding scholarships and professional sports contracts: 2.9% of high school senior athletes will play college football; there is a 1.33% chance of a college athlete being drafted by a National Basketball Association (NBA) team, and a two percent chance of being drafted by a National Football League (NFL) team. Unfortunately, student athletes and parents are not cognizant of the statistics. As a result many student athletes become adults who are unable to continue onto college or function as responsible adults (Beem, 2006; Gehring, 2004a).

Gehring (2004a) and McMillen (1991) imputed the negative effects of athletic participation on academic achievement onto school systems. They stated school systems need to increase the student-athlete eligibility requirements. School systems spend excessive money improving athletic facilities, but money is unavailable to enhance academic instruction (Hoff, 2006; Obel-Omia, 2007). Hoff found a school system that

was unable to garner support for a educational tax increase; however, money was available to construct a football field.

Contrarily, from a positive perspective, Yancey (2007) concluded athletic participation creates a cohesive environment between teachers and students which seamlessly transition into academic success for student-athletes. Yancey stated athletic participation provides physiological benefits as the probability of student-athletes struggling with obesity was reduced. Yancey further asserted extra-curricular activities avert the potential of deviant behaviors such as smoking, drinking, etc.

To counter potential negative affects at the college level, Maher (2007) and Voinis (2009) found colleges and universities are augmenting the academic support they provide student athletes. Maher (2007) stated due to the NCAA's mandate to publicize the graduation rates of student-athletes, major universities were expending financial resources to support, monitor, and tutor their student athletes. To underscore the importance of academic support at major universities, Maher found one university's student-athlete academic support budget was \$2,000,000 for the 2008 school year.

Maher (2007) found the above stated university added a new 18,000 sq. ft academic support center for student athletes. Voinis stated colleges are making a concerted effort to improve the academic achievement of student athletes. Voinis lauded the efforts of one university's student athletes. He found over 60 percent of the student-athletes achieved a GPA of 3.0 or higher, and irrespective of three men's and women's teams, the overall team GPA of the university's athletic teams was 3.0 or higher.

Franklin's (2006) study provided quantifiable data to support the notion that athletic participation positively affects academic achievement. Franklin refuted the notion

that student-athletes were incapable of achieving academically. Franklin's assertion was underpinned by statistics stating Division 1 student-athletes' graduation rates were two percentage points higher than non-athletes.

Adler and Adler (1985) provided a contrasting viewpoint regarding the effect of athletic participation on academic achievement at the college level. Adler and Adler stated student-athletes' educational and social experience at college was altered due to athletic participation. Adler and Adler's study investigated the educational experience of college student-athletes over a four-year period. They concluded the business aspect of college athletics negatively impacted the quality of the student-athlete's educational experience.

Peltier and Laden (1999) conclusions aligned with Adler and Adler (1985) as the authors stated interscholastic and intercollegiate athletics subverted the academic missions of schools. Peltier and Laden stated the time requirements of practice, competition, and training could affect academic achievement for student athletes and the academic standards of the university. Peltier and Laden asserted there are academic disadvantages for student athletes due to the time requirements of practicing, training, and competing.

Expanding upon the time demands of athletic participation cited by Peltier and Laden (1999), McMillen (1991) found a stark time contrast in academic and athletic endeavors. McMillen stated discrepancies existed between the length and duration of school days in America compared to Japan and Korea. McMillen concluded athletic participation perpetuates time and learning deficiencies for students. In addition, student athletes fall further behind their global competition in academic performance as a result

of the inordinate hours spent practicing and competing.

### **Theoretical Background**

Within the realm of organizational theory and behavior, the researcher concludes the systems theory is the theoretical framework for the study. The organization theory developed over the latter part of the twentieth century (Walonick, 1993). Walonick stated Taylor was the pioneer of the organizational theory. Walonick (1993) stated Max Weber expanded on Taylor's theory as Weber concluded organizational behavior involves human interactions and behavior is comprehended by examining cause and effect. One theme of the systems theory stressed by Walonick (1993) was the potential existence of nonlinear relationships between variables.

For example, academic achievement and athletics are nonlinear as one can demonstrate high academic achievement and not play athletics. In contrast, one can demonstrate high athletic achievement while not succeeding academically. Walonick asserted minor changes in one variable can significantly impact another variable. Conversely, major changes in one variable might yield small changes in another. The systems theory enabled the researcher to examine athletic participation and academic achievement together.

### **Studies on Intercollegiate Athletics**

Dowling (2008), Franklin (2006), Maloney and McCormick (1993) conducted studies at the college level which quantified and articulated the impact of athletic participation on academic achievement. The studies' results are applicable to the topic: The impact of athletic participation on academics in high schools in Eastern Tennessee. Gehring (2004a) expressed concern regarding the path taken by high school athletic

programs: increased television exposure of athletic contests, financially-driven agendas, and lower academic standards and classroom performance for student-athletes. Gehring provided insights regarding the current state of high school athletics. Gehring surmised over-commercialization, renegade coaches, and academic scandals were trends previously relegated to major college athletics. However, these trends currently impact high school athletic programs.

Countering the conclusions of Gehring (2004a) regarding college athletics, college administrators adopt a holistic viewpoint regarding athletics: athletics benefit all factions of the university (Lomonico, 2008). Recently, a chancellor at a major university stated the school's athletic department donated one-million dollars to support the school's academic mission during the 2009-10 school year (Gearhart & Long, 2009). Weiberg, Upton, Perez, and Berkowitz (2009) stated the economic downturn resulted in broad budget cutbacks as colleges across America eliminated teaching positions and programs, increased student tuition, and imposed a furlough on all employees.

However, Weiberg et al. (2009) found football programs at major universities continue to spend. Weiberg et al. found the average salary of college football's division 1A head coaches increased 28% in 2006 and 46% in 2007. In addition, 25 of the 120 coaches in major college football earn over \$2,000,000 per year. These salaries contrasted harshly with the \$115,000 earned by tenured doctoral professors at state universities and the median pay and benefits for presidents at public universities of \$427,000 (Weiberg et al.).

Weiberg et al. (2009) concluded compensation packages of university CEOs warranted further investigation. Tomsho (2009) cited a study on 600 private colleges

conducted by the Chronicle of Higher Education. Tomsho examined the salaries of college coaches and college presidents and “found that presidents accounted for only 11 of 88 employees earning \$1 million or more and only 31 percent of those earning \$500,000 or more” (para. 2). Tomsho also reported proponents of inflated coaching salaries asserted coaching salaries are a by-product of market conditions and the revenue athletic programs garner. Tomsho found that of the 120 bowl subdivision head coaches, 56 earned a minimum of \$1,000,000, 25 earned \$2,000,000 or more, nine earned at least \$3,000,000, and three earned a minimum of \$4,000,000.

Studies exploring the topic of proliferating coaching salaries cited the television revenue as the impetus for the multi-million-dollar coaching contracts. As of 2009, the southeastern conference’s (SEC) deal with television networks ESPN and CBS is worth three billion dollars over the next 15 years (Carter, 2009). In addition, Carter found each school in the SEC was paid roughly 5.3 million dollars in television revenue during the 2008 school year, and the current contract will result in 15 million dollars of revenue for each school.

The amount of money garnered by the institutions is staggering; however, NCAA rules prohibit intercollegiate student-athletes from receiving any compensation. The opportunity to receive a free education is the student-athlete’s compensation, but Adler and Adler (1985) stated when student athletes are practicing year round, traveling for competitions, and training extensively in a corporate sports environment, the quality of their education was negatively affected. While the quality of a student-athlete’s college education was discussed, Emma (2008) and McMillen (1991) found factions of incoming student-athletes were incapable of handling college level work. Peltier and Laden (1999)

found the National Collegiate Athletic Association (NCAA) addressed potential academic deficiencies by requiring prospective college student athletes to maintain a minimum GPA in core high school courses and achieve a minimum ACT or Scholastic Aptitude Test (SAT) score.

Peltier and Laden (1999) stated in 1985 the NCAA instituted Proposition 48 which required incoming freshman student-athletes to achieve a 2.0 GPA in 11 core academic courses and a minimum 15 ACT score or 700 SAT. Peltier and Laden asserted the NCAA's Proposition 48 measure ensured students were aptly prepared for college coursework. Since the inception of Proposition 48 in 1985, admission requirements increased (Peltier & Laden, 1999). Peltier and Laden found the Proposition 48 required a 2.5 GPA in 13 core academic courses and an SAT score of 700 or an ACT score of 17.

**Studies on intercollegiate athletics: Positive perspective.** Voinis (2009) found student athletes at one university demonstrated quantifiable gains in academic achievement. Voinis stated 60% of the 235 student-athletes at the university achieved a grade point average of 3.0 and above, and 36 athletes achieved a 4.0 grade point average. In addition, Voinis found 55 student-athletes graduated in 2009, two student-athletes received the prestigious Dr. Prentice Gautt Post Graduate Scholarship, and the academic progress of the basketball and softball team was honored by the NCAA. The athletic department's APR score was calculated using data from 2004-08 (Voinis). Voinis stated each student-athlete earned two points each semester—one for being eligible and one for remaining at the school. To determine the APR, a team's total possible points was divided by the total points the team's earned points.

The publicized results and successes at other universities are a manifestation of

NCAA mandates from the early 1990s requiring institutions to publicize graduation rates and implement academic support services for student-athletes (Maher, 2007). The NCAA's directives prompted schools to develop separate academic support centers replete with state of the art technology, private study areas, and tutors (Maher). For example, in 2003, one university constructed a 27 million dollar academic support center, and another university boasts a 10 million, 72,000 square- foot facility for its student athletes (Maher). Maher stated one university's student athletes, football withstanding, received close to 7,000 hours of academic support during the 2006-07 school year while the football players logged between 12,000 and 15,000 hours. Summarily, the academic success and support found by Voinis (2009) and Maher (2007) for student athletes at universities were found at other colleges and universities.

Franklin (2006) stated the terms *intercollegiate athletics* and *academic integrity* are congruent as numerical data exists to support a harmonious relationship between the two. Franklin found graduation rates of Division 1 and 2 student-athletes were between two and eight percent higher when compared to their non-athlete peers. Franklin found within the student-athlete group, graduation rates were higher for the following: females over males and Caucasians over African Americans. Furthermore, the graduation rates of the males and African-American subgroups still exceeded the rates of the general student population. Comparisons between the Caucasian student-athletes and their non-athlete counterparts in the above categories disclosed a lower rate for the athlete group (Franklin).

Franklin (2006) also found additional positive effects of athletic participation. Franklin found student-athletes' graduation rates were higher than the non-athletic

student body: 62% for student-athletes and 60% for students. Franklin concluded student athletes were more equipped to handle the rigors of college work due to the NCAA's requisite GPA and SAT score admission requirements

The academic success cited by Franklin (2006) was found in other studies. According to Lawrence (2008), Division 1 and 2 student-athletes demonstrated higher graduation rates when contrasted to their non-athlete peers as measured by the GSR (Graduate Success Rate) and the ASR (Academic Success Rate). The proficiency of the GSR was emphasized as factions of the student population were missed by the federal rate (Lawrence, 2008). Additional student-athlete distinctions found by Lawrence were the one percentage point improvement of student-athletes' graduation rates from 2007 to 2008, the student-athlete's five percentage point improvement in the last five years (2003-08), eight out of 10 student-athletes completed their degree within six years, and nine out of 10 student-athletes completed requirements for their degrees within ten years. Lawrence noted that close to 95 percent of Division 2 colleges submitted the requisite data for ASR computation. Lawrence stated the NCAA was pleased with the overall results, but the NCAA was working with institutions to improve the graduation rates of Division 1 college basketball and football players.

In contrast to the findings of Lawrence (2008), Peltier and Laden (1999) found the academic success of intercollegiate athletes was ambiguous. Peltier and Laden questioned the high school academic preparation which college student-athletes received. The accusation regarding student-athletes' high school academic preparation was accentuated by the following: half of the schools which were classified as Division 1-A by the NCAA conceded "basketball and football players not achieving minimal university entry

requirements but were accepted as ‘special admits’ at a rate ten times higher than the rest of the freshman class” (p. 1).

Peltier and Laden (1999) surmised the criteria for colleges admission was based on a student athletes’ athletic acumen and revenue generating potential. In a 1992 study which compared non-athletes and athletes, Peltier and Laden found male athletes who participated in revenue generating sports earned lower high school grade point averages and ACT composite scores compared to non-athletes. In closing, Peltier and Laden stated progress was being made as intercollegiate student-athlete graduation rates incrementally improved during the 1990s.

**Studies on intercollegiate athletics: Negative perspective.** Peltier and Laden (1999) stated the potential for athletic revenue was a rationale for universities to admit academically unprepared student-athletes. Dowling (2008) found a similar conclusion regarding the criteria for admitting student athletics. To underscore the pervasiveness of the problems at the university level, Dowling (2008) described the meteoric rise and deviant behavior of a university men’s basketball program where he was employed as a professor. Dowling found a positive correlation between the basketball program’s success and the academic improprieties - forged player transcripts, academic records. Disillusioned by the basketball program’s indiscretions and the university’s desire to capitalize on the revenue garnered by a highly successful athletic program, Dowling accepted a professorship at a large university in the United States.

However, early in his tenure Dowling found the school’s respective athletic department was transitioning into a larger athletic conference due to the potential for increased television revenue and exposure (Dowling, 2008). Additionally, Dowling found

the university started to model the negative trends of his former university employer as they relate to relaxed admission standards and athletes receiving preferential treatment. Dowling stated renowned universities are seeking to capitalize financially on America's zeal for athletics while concurrently compromising academic integrity.

Adler and Adler (1985) discussed the financial agendas of universities' athletic program and its impact upon the academic experience of student athletes. Adler and Adler interviewed student athletes who played Division 1 college basketball. The student athletes stated during the recruiting process the coaches provided the basketball program's academic expectations and responsibilities (Adler & Adler, 1985). In addition, the coaches outlined the steps for monitoring student-athletes' academic progress (Adler & Adler, 1985).

Upon entering as freshman, Adler and Adler (1985) found tutoring services and mandatory study halls were available to all basketball players. However, subsequent student-athlete interviews stated the monetary aspect of big-time college athletics negatively impacted the educational experience for student athletes (Adler & Adler). The players stated the demands of training and practicing, the lack of independence pertaining to majors and class registrations, and the limited social interaction with non-athletes created a negative academic experience (Adler & Adler). Adler and Adler concluded the student-athlete's attitude regressed from idealism as freshman to disillusionment as seniors, and the student athlete's goal was to survive the educational experience.

The conclusion of Adler and Adler (1985) regarding the educational experience of student-athletes participating in intercollegiate athletics was discussed by Emma (2008). Emma's conclusions were taken from his experience as a student athlete who played

major college basketball. He stated it is incorrect to expect student athletes to achieve the same standards as their non-athlete peers. Emma stated the time spent practicing, competing, training, and traveling places student athletes at an academic disadvantage. Furthermore, he stated the emotional and physical strain of athletic competition make studying difficult.

McMillen (1991) presented a divergent and poignant illustration which questioned the academic readiness of student athletes matriculating at major universities. McMillen (1991) referenced the congressional testimony of a former college and NFL football star who stated he was unable to read despite graduating from college. McMillen found the former player's scenario was indicative of the role sports play in high schools and colleges across the country: athletics are more important than school. McMillen stated academics must be stressed during the primary years of schooling. Furthermore, high schools and colleges must adhere to strict and uncompromising eligibility standards (McMillen, 1991).

Emma's (2008) conclusion regarding the time commitment of intercollegiate athletics and McMillen's (1991) illustration of the former NFL football player are not the only controversial aspects of college athletics and academic achievement. London (2002) researched the graduation rates of student-athletes at the college level. London stated between the years of 1996 and 2002 the graduation rate for college basketball players who competed at the Division 1 level never exceeded 46%. London found African-American basketball players demonstrated the lowest graduation rates. London concluded the academic skill level of student-athletes, the length of the college basketball season, and the financially driven agenda of big-time college athletics places student-athletes in

peril of not graduating from four-year universities.

Congress and the National Collegiate Athletic Association (NCAA) hope increased admission standards for incoming college freshman will translate into higher graduation rates for college football and basketball players (Franklin, 2006; Peltier & Laden, 1999). Peltier and Laden stated the NCAA instituted Proposition 48 prior at the start of the 1984-85 school year. Proposition 48 required incoming Division 1 student-athletes to achieve a minimum ACT score of 15, or 700 on the SAT, and a minimum grade point average of 2.0 on a minimum of 11 core academic courses to be eligible for intercollegiate competition (Peltier & Laden).

Franklin (2006) concluded the evaluation of Proposition 48 is comprehensive and ongoing. Franklin found that since 1994, the NCAA has gathered and studied the course data, national and state standardized test scores, and GPAs of approximately 100,000 high school students. He stated the committee concluded the following: first, grades and test scores, while independent measures, are applicable and relevant predictors of success; second, the NCAA's initial eligibility requirements must incorporate the GPA and ACT score of the student athlete; last, mandated core courses provide a salient way to predict academic success (Franklin).

The NCAA's increased core course requirements demonstrated improvement for incoming student athletes. Franklin (2006) compared the minimum GPA and ACT/SAT requirements of incoming freshman student-athletes in 1994 and 2003. He found the following: first, the average core-curriculum GPA was 3.18 in 1994 and 3.34 in 2003; second, the average SAT composite score was 1079 in 1994 and 1095 in 2003; third, average ACT composite score was 21.8 in 1994 and 22.1 in 2003.

In 2009-10 the NCAA maintained the minimum 2.0 GPA, but increased the minimum core course requirement to 14 for admission into a Division 2 college or university and increased the minimum core course requirement to 16 for admission into a Division 1 college or university (NCAA Eligibility center website, 2009; Franklin, 2006). The NCAA website further stated admission into Division 1 colleges and universities requires minimum ACT/SAT scores which correlate to the core course GPA; for example, a 2.4 GPA in core classes requires an 860 SAT. Incoming Division 2 freshman student-athletes are required to obtain an ACT composite score of 68 or an 820 score on SAT (NCAA Eligibility Web Site, 2009). Franklin stated evaluation will continue regarding the overall progress of the reforms.

### **High School Athletics**

Bishop (2008) concluded America's zeal for sports is proliferating to unprecedented levels. Unfortunately, Bishop found America's veracity for sports negatively affects the intangible value of sports for children and their families. Bishop denounced the recent trends permeating youth sports: parental pressure on student-athletes to procure athletic scholarships, athletic contests devoid of uninhibited enjoyment, and student-athletes focusing on one sport. He found glaring differences between student athlete's athletic abilities and expectations. Bishop further asserted parents are seeking Division 1 college scholarship and athletic acclaim for their student athletes. In their quest to achieve athletic goals, Bishop concluded student-athletes and parents abandon core values and principles. Bishop encouraged parents and children to develop a holistic view of athletic participation: develop values, build relationships, and explore new opportunities.

Despite the popularity of athletics in America, there is limited research investigating the effect of athletic participation on academic achievement for high school seniors. Studies examining athletics and academics found an indirect positive effect of athletic participation on academics. Reid (2005) stated former high school athletes earn a higher yearly income and remain physically healthier compared to non-athletic high school students.

The effect of athletic participation on academics in high schools was investigated in Sitkowski's (2008) study entitled "The effects of participation in athletics on academic performance among high school sophomores and seniors". Sitkowski underscored the positive and negative aspects of athletic participation and its impact on academic achievement. Sitkowski concluded high school athletics developed self-discipline, self-confidence, and responsibility. In addition, he found high school athletes often have lower dropout rates and fewer incidences of alcohol consumption.

From a historical perspective, Burnett (2001) found the lineage of high school athletics traces back to the early part of the 1900's. Burnett referenced John Dewey's theory regarding athletics as Dewey stated athletics engages students, connects them with the school culture, and mitigates the possibility of students participating in unlawful activities. Throughout the 1920's, the popularity of athletic competitions in the high school increased. Simultaneously, Burnett found growing angst among those in the academic community. The contentious debate between the athletic and academic cultures resulted in dichotomous curriculums: athletic and academic (Burnett). He stated the opposing philosophies created a chasm between the supporters of athletics who exalted the masculine virtues of high school sports and the academics who asserted high school

athletics emasculates academics.

In the 1970s television increased the popularity of professional and college sporting events (Burnett, 2001). As a result, Burnett found high school sports became more popular. He stated one state's obsession with high school football embodied both the increasing interest in high school athletics and the disturbing aspects of high school athletics. Burnett found the salaries of one state's football coaches doubled the salaries of its regular teachers and high school football teams played in multi-million dollar stadiums.

The controversy regarding coaches' pay was found in other states. Fish (2000) scrutinized the salaries of one state's high school coaches. Fish's 2000 study revealed the following: high school head football coaches earned a salary 55 percent higher than the average teacher; ten coaches' salaries exceeded the state's lieutenant governor's salary; two coaches' salaries exceeded their building principal's salary.

The other controversial aspects of high school athletics were financial expenditures on athletic facilities and increased commercialism. Obel-Omia (2007) stated high schools construct new stadiums. However, no money exists to hire a teacher for core academic subject. Gehring (2004a) found one high school football team which plays in a 10,000 seat stadium. Gehring stated the educational environment for students is negatively affected in these over-commercialized environments. He asserted the quality of a high school student-athlete's education is in peril when schools focus on making money. Gehring concluded that irrespective of racial or socioeconomic status, overemphasizing high school athletics negatively affects the academic environment for all students.

Gehring's (2004a) conclusion regarding the over-commercialization is noteworthy. Woo (2006) found Nike capitalized on the high school athletic hysteria by pushing a slogan in their commercials which stated "football is everything." Woo stated the commercial began with a high school football star ignoring a teacher's lesson. Woo noted the commercial's next scene was a game-winning last second touchdown pass. Subsequently, the slogan "football is everything" was emblazoned across the TV screen. He stated the commercial drew protests from school officials. Nike stated their intent was to reinforce the importance of being successful in academics and athletics (Woo).

Educational proponents are hoping to combat the negative effects of increased commercialism. Federal educational mandates are requiring school systems and students to demonstrate academic proficiency on defined benchmarks in core curriculum subjects (U.S. Department of Education, 2006). The Department of Education's directives regarding student achievement prompted the National Association of State Boards of Education (NASBE) to investigate the state of athletics in 21<sup>st</sup> century high schools (Hoff, 2006). Hoff stated the NASBE's study regarding high school athletics and academics was prompted by national debate between academic and athletic supporters.

Burnett (2001) asserted the contentious banter between academic and athletic endeavors is a legislative issue. Burnett found state legislatures, state education boards, and school districts require concise academic eligibility requirements for high school athletic participation. Of particular interest to Burnett, was the No Pass/No Play policy enacted by one state legislature which mandated school districts to restrict athletic participation for student-athletes who were failing academically.

However, critics stated the legislative athletic eligibility mandates deprive

academically ineligible student-athletes of the intangible benefits of high school athletic participation (Burnett, 2001). He concluded the results of precluding high school athletics due to academic shortcomings are higher student dropout rates and negative school cultures. Burnett extolled the inclusionary nature of high school sports as students garner self-esteem and pride from representing the community and the school.

Additional conflicting viewpoints exist as to whether athletic participation positively or negatively impacted academic achievement in high schools. White (2005) found high school athletics develops and instills positive attributes and provides the impetus for lifelong success. Jones (2007) concluded high school student-athletes are capable of succeeding academically. Obel-Omai (2007) stated high school athletics gives rise to academic compromises.

However, Thomas (1989) found high school athletic participation demonstrated neither a positive nor a negative effect on academic achievement as evidenced by post high school educational and job data. In particular, Thomas found athletics participation did not improve academic achievement for certain minorities. Thomas summarized the findings of a 1980 study conducted by the Women's Sports Foundation which tracked 30,000 high school sophomores for a six-year period. The racial groups studied were Caucasian, African American and Hispanic students from rural, urban, and suburban backgrounds.

Thomas's (1989) findings provided post-high school data for the groups. Thomas found rural Hispanic women, urban and rural Hispanic men, and every Caucasian female group (except the urban group) matriculated at a college or university, but athletic participation did not spur the African-American groups to post-secondary education. In

addition, the female African-American urban group was the only group to have a noticeable correlation between athletic participation and job status. The following statistics buttressed Thomas' conclusions regarding athletic participation and academic achievement for minorities: of the African-American female non-athletes not attending college, more than half held high status jobs when contrasted with the non-attending college African-American females' paltry five percent; in regards to job expectations, half of the above named non-athlete group demonstrated high expectations while the athlete group rendered a total of close to 20 percent.

**High school athletics: Research citing a positive effect.** Proponents stated high school academic achievement is positively affected by athletic participation. In fact, supporters concluded high school athletics positively impacts the high school, its students and the community - academically, personally and socially (Yancey, 2007) Burnett (2001) concluded high school athletics keep students out of undesirable activities. Yancey discussed and stressed the positive effects of athletics on the school culture. He found athletic participation reduces student absences and develops positive student-teacher relationships

However, the positive effect of high school athletic participation found by Yancey (2007) is not relegated to a student-athlete's high school experience. Athletic participation can serve as a catalyst for post secondary academic success (Reid, 2005). Reid's study focused on high school seniors who graduated in 1992. He compared and contrasted non-athletes and student-athletes who served as team captains of their particular sport, junior varsity and varsity athletes, and intramural participants. Reid found the student-athletes demonstrated higher rates of physical activity and smoked

cigarettes at a lesser rate compared to their non-athletic peers eight years later. Reid referenced conclusions from another study which stated students participating in high school athletics demonstrated advanced performance figures pertaining to grades, school attendance, graduation rates, and discipline records.

In addition to males, high school athletics participation revealed positive benefits for females. Peckham (2008) found female athletes who participated in high school athletics revealed higher undergraduate degree completion rates six years later when compared to their non-participating peers. Brooks (2002) compared high school sophomore female athletes (females participating in a high school sport) and non-athletes (females not participating in high school sports). Brooks found in the areas of happiness and satisfaction, intellectual and school status, the female athletes demonstrated average scores six points higher than non-athletes.

The positive characteristics of playing high school athletics were expanded upon by Carlson, Scott, Planty, and Thompson (2005). Carlson et al. utilized a sample of 10<sup>th</sup> grade students who graduated from high school in 1992. Eight years later they assessed the progress of the target students in the areas of education, employment and health. Carlson et al. found the students involved in scholastic sports achieved greater educational and professional success when compared to their non-scholastic peers. Furthermore, the athletic group engaged in cigarette smoking at a substantially lesser rate and demonstrated tangibly higher physical fitness rates when compared to the non-athletic group (Carlson et al.).

In addition, the positive effect of athletic participation for student-athletes infiltrated achievement areas. White (2005) compared the GPA, class rank, and math

GPA of high school athletes divided into two groups: high participant and low participant. High participant was defined by White as follows: a student whose number of seasons participating in athletics was equal to or greater than, their years in high school. Low participant was defined as a student whose number of years in high school exceeded their seasons of athletic participation. White referenced the perceived allotted time requirements of playing numerous sports. White found the high participant group outperformed the low participant group in all three of the studies' measures: 1) GPA, 2) class rank, and 3) math GPA.

White (2005) cited the findings of Silliker and Quirk (1997) who concluded the grade point averages of high school soccer players were higher in-season than out-of-season. The impetus for Silliker and Quirk's investigation was a study conducted in the late 1970s which compared the academic performance of in-season and out-of-season wrestlers. Silliker and Quirk's study focused on 123 students (64 females and 59 males) who attended five rural high schools and participated in interscholastic soccer. They stated extracurricular participation foster interpersonal and intrapersonal relations, lofty career expectations, and lower degrees of deviant behaviors for high school students. Silliker and Quirk (1997) concluded "that participants had significantly higher GPAs in-season than out-of-season" (p. 288). In addition, they confirmed their hypothesis which stated, "TAP in athletics for high school students does not endanger, and may enhance, academic performance" (p. 288).

Whitley (1999) compared the academic performance of athletes and non-athletes in one state's high schools. Whitley analyzed the GPAs, graduation and dropout rates, attendance records, and discipline referrals for the 1995 school year for 126,700 students

from 133 high schools. He utilized eight subgroups comprised of black male, black female, white male, and white female groups with an athlete and non-athlete group for each racial identifier. In all of the measurable categories, Whitley's findings confirmed a rejection of the null hypotheses as the athlete subgroups outperformed the non-athlete subgroups as a whole and within each subgroup. Whitley noted the mean GPA between the two subgroups was appreciably higher in seven of the eight subgroups for the athlete subgroup. In conclusion, in 20 out of 21 comparisons the performance of the athlete subgroup was superior to the non-athlete subgroup (Whitley).

Sitkowski (2008) conducted a quantitative study which compared the grade point averages (GPA) of the following groups: 1) in-season and out-of-season sophomore and junior athletes at the target high school, 2) student athletes participating in certain sports. In addition, he compared athletes and non-athletes in the areas of state achievement testing, classroom grades, and daily school attendance. Sitkowski found sufficient evidence to reject the null hypothesis as the GPA scores of male athletes were higher in-season for male student-athletes compared to their out-of-season GPA. Sitkowski concluded males participating in certain sports demonstrated differences in GPA scores. However, he stated females demonstrated no difference between in-season and out-of-season GPA, or differences in GPA based on specific sport participation.

**Non-cognitive attributes.** Sitkowski (2008) cited empirical research which found a potential correlation between non-cognitive attributes, such as diligence and responsibility, and their role in positively impacting the academic achievement of high school student-athletes. Sitkowski stated students participating in sports outperformed non-participatory (non-athlete) students in the areas of state achievement testing,

classroom grades, and daily school attendance. Furthermore, Sitkowski stated females develop higher self-esteem and better body image through athletic participation.

**Positive effects for females:** Elliot, Moe, Goldberg, Defrancesco, Durham, and Hix-Small (2006) investigated the effect of athletic participation on the self-esteem and body image of females. Elliot et al.'s goal was to determine the effectiveness of a prescribed in-season intervention curriculum designed to prevent harmful eating and body-shaping drug use. Utilizing an experimental and control group, Elliot et al.'s study was comprised of students who participated in women's sports (including the dance and cheerleading teams) at six middle schools and seven high schools in the United States. Their study sought to identify and rank issues as they relate to the development of disordered eating and body-shaping drug use in females. Elliot et al.'s questions utilized a 7-point Likert scale with options ranging from strongly agree to strongly disagree. The questions addressed topics such as self-esteem, personal beliefs pertaining to physical appearance and the impact of television and culture (Elliot et al.).

Elliot et al. (2006) stated, "Those factors with the greatest contribution to the risk for disordered eating and body shaping drug use were mood and self-esteem, norms of behavior, health/normal body weight, media depictions of woman and societal pressures to be thin (p. 6)." The prescribed curriculum, entitled ATHENA, is an in-season activity comprised of eight four-minute sessions (Elliot et al.). Their questionnaires for the control and experimental groups were distributed during the preseason of the participants' respective sports season to determine baseline and ended two weeks prior to the conclusion of the participants' sports seasons. Elliot et al. found the experimental group revealed reduced diet pill use and reduced initial use of diet pills and performance

enhancing supplements. Elliot et al. further stated female athletes demonstrated fewer negative behaviors pertaining to body image and harmful drug use. Elliot et al. stated the uniqueness of a team culture, gender commonality, shared interests/goals, and the conduciveness of the coach-directed model, contributed to the female athletes' success in the study.

**Leadership.** Dobosz and Beaty (1999) asserted high school athletics is a venue for developing and applying successful leadership principles. Dobosz and Beaty investigated whether students who served in leadership positions on their respective teams (for example, team captains) exhibited a greater degree of leadership skills compared to their non-athlete peers. Dobosz and Beaty defined leadership as “The capacity to guide others in the achievement of a common goal; decisiveness, determination, interpersonal and organizational aptitude, loyalty, self-efficacy and self-discipline are considered some of the attributes of effective leaders” (p. 215). In addition, Dobosz and Beaty concluded leaders supplant personal prejudices and demonstrate empathy for a teammate's strengths, weaknesses and differences.

Dobosz and Beaty's (1999) study utilized an athlete group (students participating in at least one sport) and a non-athlete group (students not participating in a sport). Each group was comprised of 30 students, 15 male and 15 female. The 50 item Leadership Ability Evaluation (LAE) was the instrument utilized to measure the students' leadership abilities (Dobosz & Beaty). They stated, “The LAE is designed to measure leadership ability, behavior, and style for individuals from ninth grade through adulthood” (p. 216-217). Dobosz and Beaty found the mean leadership scores of the athlete group was lower than the non-athlete group; hence, the athlete group demonstrated better leadership scores

and confirmed DeBosz and Beaty's first hypothesis which stated "athletes would show significantly greater leadership ability than would non-athletes" (p. 218). They concluded athletic leadership positions were conducive for high school students to develop effective leadership skills.

In addition to leadership skills, participation in high school athletics improves future civic involvement. Lopez and Moore (2006) compared the civic involvement levels of 18-25 year old adults grouped into two categories by the researchers: former high school athletes and non-athletes. Lopez and Moore concluded former high school athletes demonstrated higher rates of volunteering within their communities, voting in elections, fundraising for worthy causes and articulating their thoughts orally in a public setting. However, the direct correlation between high school athletic participation and future civic engagement was ambiguous (Lopez and Moore). Lopez and Moore concluded high school participation does not lead to civic engagement; however, factors such as income, educational aspirations, ethnicity and gender determined the potential for civic involvement.

**Positive financial benefits of high school athletics.** Contrary to the multi-million dollar facilities and the over-commercialization cited by Obel-Omia (2007) and Gehring (2004a), high school athletics produces positive financial results for school systems. Hudson (2008) emphasized the fiscal benefits of revenue-producing sports in America's high schools. Hudson bemoaned the financial state of high school athletics: slashed budgets and reduced coaching staffs. Hudson stated the football team is a harbinger for other sports as the sustainability of non-revenue sports (cross country, track) are dependent upon football gate receipts. He stated if schools' bellwether sports are not

operating in the black, athletic directors are forced to enlist financial support from community members.

Building on the budgetary themes discussed by Hudson (2008), Williams (2008) outlined and stressed the financial benefits of high school athletics. In a roundtable discussion which involved coaches, administrators and parents, Williams concluded financial limitations are not a rationale for eliminating high school sports. Williams' participants concluded the burgeoning popularity of high school sports gives rise to organizations such as booster clubs and parent groups providing financial assistance. The sponsoring organizations alleviate the financial burden on high schools in the areas of coaching salaries and travel expenses to away games (Williams). In addition, Williams concluded high school athletic teams with strong fan support (for example, football and basketball) are capable of financial independence and providing revenue for other sports.

Hudson (2008) and Williams (2008) asserted revenue garnered at football games aids other athletic teams at the high school. Jordan (2009) underscored the financial importance of football in high schools. Jordan stated the football program at one high school funded three-fourths of the school's athletic budget. Jordan found the funds generated by the football programs provided financial assistance to other sports at the school.

Pfahler (2008) and Staples (2008) discussed the dire conditions of financially strapped high school athletic departments. Pfahler lamented the economic downturn which crippled the athletic budgets of school districts in one state. Pfahler stated district mandated cutbacks, lower gate receipts and higher travel costs collectively affected schools' athletic budgets. Pfahler cited the financial restrictions imposed by school

districts' central offices. For example, one school district confined schools to a 75-mile radius for athletic contests, and another school district reduced athletic teams and sports at their high schools (Pfahler).

Staples (2008) found high school athletic programs reduced programs, school systems slashed budgets, districts increased property taxes and school districts instituted pay for play initiatives at their high schools. Staples stated, "At one high school, parents must pay \$155 for a child to play football, \$165 for basketball and \$240 for hockey - with a \$600 maximum per family" (www.si.com). He found a group of students at one high school demonstrated their disapproval of the school board's decision to eliminate sports by staging a walkout.

Cavanaugh (2009), Gatti (2009), and Lemire (2009) found school districts budget restrictions impacted high school athletics. Broad cuts to athletic budgets forced schools to implement student fees to avoid the elimination of sports programs (Cavanaugh). To develop a clear and concise portrayal of the monetary crisis which infiltrated high school sports, Cavanaugh cited a national survey of school leaders conducted by the American Association of School Administrators. Cavanaugh found the following: "10 percent of school leaders reported having scrapped some kind of extracurricular activities in the 2008-09 academic year. But nearly triple that number, 28% say they have considered cuts to extracurriculars for next academic year" (p. 6).

Gatti (2009) concluded high school athletic budgets were financially challenged. Gatti asserted the financial limitations of non-revenue sports mandated coaches, parents and athletes to collectively fundraise for their sports' essentials: uniforms, training equipment and transportation money. Gatti found coaches and players of non-revenue

sports fundraised by sponsoring team dinners, working concession stands at football games, and selling t-shirts. Gatti lamented the potential extinction of sports such as wrestling and track. Gatti concluded the distinctiveness of high school athletics is rooted in the opportunity to develop discipline and responsibility, and student-athletes deprived of the opportunity of participation are victims.

Lemire (2009) found high schools were unable to raise the requisite funds for high school sports. Lemire described the plights of two high school sports programs in two states which were forced to cancel athletics due to budgetary turmoil in the school systems. The urgency of the budget situation at one high school was underscored as the school required an additional \$35,000 to fund spring sports despite \$115,000 in donations from two famous alumni (Lemire). Lemire cited the monetary problems of one school district as a one-third reduction in the county's athletic budget reduced athletics directors to half-time employees, placed travel limitations on teams and eradicated all freshman sports teams.

**Coaches: Positive examples.** While research conducted by authors including Williams (2008), Hudson (2008), and Jordan (2009), lauded the financial benefits of strong high school athletic programs, (Josephson, 2007) found the lives of student athletes are positively impacted by coaches. Josephson asserted coaches remain steadfast in their commitment to developing well-rounded student-athletes. The majority of high school coaches strive to teach and instill in student-athletes the requisite skills and values for lifelong success (Josephson, 2007). Buttressing Josephson's assertions was a study conducted by the Josephson Institute which stated 90 percent of student-athletes concluded their high school coaches were strong role models. Josephson concluded

character development should be at the forefront of school's athletic goals.

Gould, Collins, Lauer, and Chung (2007) investigated the relational, emotional, and organizational methods of ten coaches who ranged from 47-68 years old, possessed 22-48 years of coaching experience and accumulated successful win-loss records. Gould et al.'s study was novel as there was a scarcity of research studying effective coaching methods. Gould et al. stated positive outcomes of sports participation for adolescents cultivated an acute awareness of goal setting and the effective skills cogent to goal attainment. Furthermore, they stated their research could serve as a coaching template for impacting athletes' cognitive and personal growth.

Discussed and stressed by Gould et al. (2007) was the importance of respectful communication and standards of accountability for team members which were modeled by the effective coach. They stated coaches should model the following: first, the demonstration promptness for practice/team events and exactness and consistency with team policies; second, the involvement of others (parents, assistant coaches) into the process as evidenced by various modes of communication (staff and parent meetings in which open communication is encouraged); third, the development of player and team strategies (setting, articulating, and reinforcing individual and team goals and incorporating intrinsic and extrinsic rewards for motivation); last, the integration of mentors and professional staff to ensure future educational and professional success for student athletes. Gould et al. stated the paramount importance of players and coaches developing relationships with trust, respect, and empathy as its core foundation.

In reference to effective coaches involving others in the development of student athletes, Hoch (1998) discussed the importance of involving vested groups in the athletic

program. Hoch asserted a balanced approach enables schools to negate the negative influences of high school athletics and embrace the positive aspects of athletic participation. Hoch stated a school's athletic program is not an exclusive entity, and athletics plays a visible and pivotal role in the overall school culture. Hoch implored administrators to work cooperatively with athletic personnel to create a school environment conducive for overall school success. He stressed the importance of communicating with respective administrators on the policies, philosophies, goals, and achievements of the school's athletic program.

Hoch (1998) stated a successful partnership between the athletic department and the school administration is underpinned by the following: a) articulating a comprehensive definition of success - winning is viewed holistically, b) providing tangible justification for athletic expenses, c) hiring teachers who are capable of coaching, d) defining a criteria for coaches as it relates to experience, personality and attributes, d) incorporating the administration into the process of hiring and firing coaches, e) familiarizing schools administrators with the responsibilities of the athletic director position - managing and evaluating coaches, balancing the athletic budget and resolving parental issues, and f) comprehending the effect of upper-level administrative decisions and initiatives on the athletic program.

**High school athletics: Negative impact on academic achievement.** The stated benefits of high school athletics were refuted by other researchers (Zimmerman, 1999; McMillen, 1991). Beem (2006) and Gehring (2004a) alleged the athletic agendas of high schools were affecting the academic development of student-athletes. Bukowski (2001), Burgess (2007), and Murphy (2008) concluded school systems, state athletic associations,

parents, community members and coaches were responsible for the negative influences of athletic participation on academic achievement

**School systems: Negative impact on academic achievement.** Beem (2006) stated a school is responsible for addressing academic and athletic imbalances in their schools. Beem found instances where academically ineligible student-athletes participated in sports, teachers were cajoled to change student-athletes' grades, and schools maintained poor student-athlete attendance records. Beem urged school boards and superintendents to redefine the role of athletics in high schools: academics first, sports second. Beem concluded adherence to local school board and state high school athletic association eligibility rules is imperative.

McMillen (1991), Cook (2003), and Virginia PTA (2009) found schools can potentially negatively impact the academic achievement of student-athletes. Gehring (2004a) stated schools were beholden to the notoriety and financial capability of successful sports teams. Beem (2006) stressed schools' academic responsibilities as "school districts need a 'clearly defined purpose for their athletic program' that syncs with their overall mission statement" (p. 12). Beem concluded a comprehensive oversight model by school superintendents negates athletic excesses in schools.

To further illustrate the role schools play in the debate of academics and athletics in high schools, Cook (2003) referenced Buzz Bissinger's book, *Friday Night Lights*. In 1988, Bissinger chronicled the travails of a high school football team who played in front of 20,000 fans on Friday nights (Cook). Unfortunately, he stated Bissinger found the environment which surrounded the football team was money-driven. Bissinger stated, "Education right now is at the bottom of the pile. It's more and more about potential

profits and less and less about what kind of place sports should have in a high school setting, and that's kind of tragic" (Cook, 2003, p. 15). Cook concluded Bissinger's portrayal of the high school football program illuminated the perception that student-athletes receive preferential treatment in the classroom.

The alleged academic neglect by school systems is not the only controversial aspect of high school athletics. Obel-Omai (2007), Murphy (2008), and Cotton (1996) discussed and stressed the negative effect of schools spending money on stadium renovation projects, coach-designated teaching positions, and coaching salaries. Obel-Omaia found schools slashed budgets by eliminating teaching positions, cut department budgets and forced teachers to work in archaic conditions. The national television coverage of sports networks such as ESPN potentially galvanizes a school's desire to build an impressive infrastructure (Burgess, 2007). Through the revenue garnered by ticket sales, media guides, and advertisements, high schools erect gaudy athletic facilities as evidenced by one high school's football stadium (Gehring, 2004a). Gehring found the high school spent \$20 million on its new football stadium.

The assertion regarding high school athletics usurping academic achievement, were discussed by (White, 2005; Gehring 2004a). White cited the three-state experiences of a former school superintendent. The superintendent observed undue pressure placed on teachers to pass student-athletes, and the quality of student-athletes' academic experience compromised due to athletics during his tenures (White).

Beem (2006) concurred and expanded upon Gehring (2004a) as the researcher found irony when an additional teaching position is squelched, but the football stadium project continues. Supporting Beem's assertions was the following: in the last several

years, the one school system spent \$180 million on football stadium renovation projects; \$10 million was the price for a renovated stadium and a new field house in one school district; taxpayers in a school district were unable to raise requisite funds to enhance education, but booster club funds existed for a new football field. Beem found no correlation between athletic participation and academic achievement. Therefore, as public servants, schools should earnestly maintain academic integrity.

The assertions of Gehring (2004a) and Beem (2006) regarding the construction of multi-million dollar high school stadiums was found by Obel-Omia (2007) who discussed the emergence of new and upgraded high school stadiums and facilities throughout the United States. Obel-Omia found since the 1990s, three-quarters of major league teams played in brand new or renovated stadiums. The author asserted the trend of building contemporary facilities is trickling down to the high school ranks. Obel-Omai stated high schools compete in earnest to produce the best facility and therefore utilize the facility as a tool to recruit premier athletes in surrounding counties. Gehring (2001) stated the recruiting climate in high school sports mandated schools to augment facilities to lure in premier athletes.

Obel-Omia (2007) concluded schools desiring to construct astonishing athletic facilities ignore their academic responsibilities. "If a school can build a new sports complex, why can't we fix the leak in the mathematics wing?" (p. 15). Fish (2000) underscored the existence of incongruity between academic and athletic expenditures in one state's public schools. Fish stated the academic shortcomings of the state's public schools, but money abounds for developing a top-notch football program. Fish impeached the quality of education at schools if football reigns.

Obel-Omia's (2007) and Fish's (2000) assertions regarding financial expenditures on high school athletics was discussed by Callen and Thomas (2009). Callen and Thomas scoffed at the practice of schools expending financial resources on athletics while simultaneously cut teaching positions and academic programs. The ramifications of allocating funds for athletic facilities: a community with a warped perspective pertaining to academics in high schools (Obel-Omia). Furthermore, Obel-Omia concluded monies allocated for sports complexes is better utilized in programs aimed at developing citizens able to serve the community.

The trend of building multi-million dollar facilities was not the only controversial aspect of the athletic and academic debate. Murphy (2008) and Cotton (1996) asserted school systems manipulate funds to provide non-teaching positions for athletic coaches. Murphy stated coaching was an extra pay duty. However, he found a state where high school coaches received both a coaching salary and a full teaching salary for performing non-teaching duties during the school day. Cotton denounced the hiring of teachers based on their coaching pedigree as opposed to pedagogical acumen. He found little harm if physical education was the coach's area of certification. However, it is problematic when coaches teach core academic subjects as the daily requisite lesson planning was incompatible with coaching athletics (Cotton).

The majority of aforesaid research focused on high school football stadiums/programs. However, one state's high school basketball teams are replete with impressive athletic facilities. Ruibal (2004) found one aspect of high school athletics embodies the zeal of the hoops crazed state - the state's high schools boast nine of the 10 largest gymnasiums in the country. Ruibal's assertion is buttressed by one high school's

9,325 seat arena and its 10,000 spectator capacity. Ruibal found the community and student body were passionate about teams as thousands of raucous students join forces with season ticket holders to cheer on the home team. In addition, another high school's gym seats close to 9,000 spectators (Ruibal & Glier, 2004).

A bordering state, in addition, is rich in tradition and athletics facilities as evidenced by the gymnasium at one high school (Ruibal & Glier, 2004). The authors found the arena at one high school seats 6,000 and each year hosts some of the country's elite teams in a high school boys' tournament. Additionally, Ruibal and Glier found a high school girls' basketball program which boasted a coach who has amassed close to 650 wins as a coach and a waiting list for the coveted 964 courtside seats—sold out since the arena opened in 1980.

**State athletic associations: Negative impact on academic achievement.**

Bukowski (2001) provided the minimum academic eligibility requirements of 125 arbitrarily selected high schools across 48 states. Bukowski credited the athletic eligibility reform efforts of one urban school district and one state in 1983 and 1984. The urban school district instituted a rule which stated, "To be eligible for participation in extracurricular activities students must maintain a C average in four subjects and have no failures" (p. 1). Four focal points guided Bukowski as he assessed the schools:

1. Minimum individual grade point averages for athletic participation
2. Maximum number of failing grades student-athletes earn and remain eligible for competition
3. The time frame for athletic suspension for athletes failing to achieve the minimum requirements

4. An adherence to individual state association guidelines for academic eligibility (p. 1).

Bukowski (2001) stated school administrators find comprehensive value in high school athletics, and it is unwise to implement stringent eligibility policies. Bukowski stated schools which articulated and enforced uncompromising academic standards for student-athletes were uncommon (Bukowski, 2001). However, Bukowski found one high school temporarily who removed student-athletes if academic standards were unattained.

**Parental influences: Negative impact on academic achievement.** Cook (2003) concluded parents hope their student athlete is able to parlay athletic success into a college scholarship or a professional career. To aid the student athletes in their quest to obtain a scholarship or a professional contract, parents often spend inordinate amounts of money on private coaches. He stated the time spent training often translates into less time studying. Cook noted the common practice of parents spending time and money traveling to national tournaments or transferring high schools if dissatisfaction exists with a school's athletic program.

Cook (2003) discussed the prolific prep career of one of America's coveted female high school basketball recruits. He found that parental disenchantment with the high school coaching situation forced the student-athlete to transfer and attend a different high school. Cook found student-athlete transfers commonplace in some public school district. Consequently, he found school boards instituted student-athlete transfer policies to deter athletes and parents from changing schools.

Cook's (2003) conclusion regarding parental exuberance in high school athletics was supported by (Burgess, 2007; Virginia PTA, 2009). Burgess stated parents pay

exorbitant fees to private coaches, travel around the country on club teams, and attend summer clinics hoping their son or daughter procures an athletic scholarship. He found when the student athlete's athletic goals are not attained the parents hold the coach accountable. Burgess found parents demonstrate a lack of respect when they blame coaches. Burgess stated in a previous era the coaches' directives were immediate and literal, but recently athletes and parents question the authority of the coach. Burgess presented a poignant encapsulation pertaining to the respect issue: A local football coach was accosted by a disgruntled parent during a halftime speech.

Burgess's (2007) parental anecdotes warranted further investigation so as to further ascertain the parental viewpoint. In a student athlete's infancy years, parents envision the next famous athlete (Virginia PTA, 2009). The scarcity of college scholarship money was the rationalization as parents hire year-round sports specific trainers and consequently preclude the student-athlete from participating in other sports or activities (Virginia PTA). The Virginia PTA stated schools incorporating the eligibility and participation requirements of governing entities, such as the Virginia High school League, mitigate parental fanaticism.

Beem (2006) stated parental expectations for athletic success contributed to the negative effect of athletic participation on academic achievement. Beem concluded the parental expectations for athletic acclaim increase as they spend time and money traveling the country for national competitions. Decreased playing time in competitions jeopardizes the parental aspirations of a professional sports contract (Beem). He concluded the lure of athletic notoriety is enticing for low-income families who link athletic success and financial success.

The negative aspects of adult influence were underscored by McMillen (1991) as the author lamented the pervasive favoritism bestowed upon athletes, the academic negligence in America's schools, and the perpetrators of these trends. "All through our society there are examples of adults distorting the priorities of students" (p. 489). McMillen's assertions were buttressed as the author described the plight of one gubernatorial candidate who endorsed a pass-to-play initiative and allegedly lost the election, and one teacher's subsequent resignation after failing the starting quarterback. McMillen concluded athletic fervor is emblematic of a society devoid of educational values.

McMillen's (1991) conclusions regarding athletics were confirmed by Zimmerman (1999). Zimmerman stated throughout the 20<sup>th</sup> century, adults propagated the popularity of high school sports in America. As a result, adults ensured a de-emphasis of academics, and "What message do adults send when they elevate athletics over everything else, including academics?" (Zimmerman, p. 1). The issue requires further examination as schools acquiesce to parents' and student-athletes' desires to achieve athletic notoriety (Gehring, 2004a).

**Coaches salaries: Negative influence on academic achievement?** The role of coaches could negatively impact the academic achievement of student athletes. Fish (2000) found some coaches were hired under temporary teaching positions. Fish stated seven-percent of one state's head high school football coaches possessed emergency teaching certificates. In addition, Fish found the state spent close to \$80 million on teachers' contracts during the 1998-99 school year. He found the state's citizens paid local taxes of over \$9.5 million on football coaching supplements. Ten high school

coaches' salaries exceeded the salary of the lieutenant governor, and the salary of two football coaches surpassed the high school's principal (Fish). He further stated coaches earn booster club sponsored vacations and leased automobiles for performance bonuses. When Fish compared the average salaries of high school football coaches and teachers in one state, he found coaches' salaries exceeded the teachers' salaries by more than 50 %.

Bean (2009), Jacob (2006), and Manzo (1996) found a large gap between teaching and coaching salaries. In 1996, Manzo compared and contrasted the salaries of one state's highest paid teacher, \$63,000 with 28 years experience and a 12-month contract, and the states' highest paid football coach, \$73,000 base salary and a \$10,000 performance bonus. Manzo found the football coach earned his base salary as an athletic administrator. Manzo stated the coach spends 70-80 hours per week at the school coaching and overseeing athletic events. Furthermore, the football coach's team generated revenue for the school and unsuccessful performance on the athletic field would result in his termination (Manzo). He further concluded the majority of coaches teach during the school day, and the existing salary discrepancies between coaches and teachers were commensurate with the requisite hours and responsibilities of coaching.

Recently, research which compared teaching and coaching salaries revealed a more pronounced difference in compensation since Manzo's (1996) findings. Trubow (2006) found that head high school football coaches in one state who competed in 4A and 5A classifications (any school with more than 950 students) earned an average salary of \$73,804, and the average teacher earned an average salary of \$42,400. Trubow cited a similar study in 1996 which revealed high school head football coaches earned \$54,000 and teachers \$31,000 on average. Trubow incorporated inflationary adjustments and

concluded the salary inconsistencies between head football coaches and teachers increased over 7% since 1996. Sailer (2007) stated a former head football coach in the southeastern part of the United States earned a base salary of approximately \$100,000, grossed \$25,000 in yearly revenue from an off-season camp, and was awarded a new pickup truck every 60,000 miles.

The time requirements and stress of coaching was cited as a rationale for the salary disparity and between coaches and teachers. Manzo (1996) stated teachers spend innumerable hours in after-school activities, obtain master's degrees, and teach for many years. However, Jacob found coaches garnered a paltry hourly rate when correlated to the 14-16 hour days—Monday to Sunday. Bean (2009) provided a typical head high school football coach's week in the southeastern United States.

Sunday: Staff meeting and game-planning for 8-10 hours after church.

Monday: Arrive at school by 6 a.m. to prepare JV/freshman uniforms, attend night games and arrive home at 9:30 p.m.

Tuesday: Arrive at school by 7 a.m., supervise long afternoon practice, attend booster club meeting and arrive home at 9:30 p.m.

Wednesday: Often short practice in hopes of allowing players to attend church services.

Thursday: Arrive at school by 7 a.m., scout future opponent, and arrive at home 11 p.m.

Friday: Game day, arrive home at midnight or later.

Saturday: Watch film at home, prepare for next week's game (Bean, 2009, p. 1).

In addition to the arduous schedule and a potential \$70,000-\$100,000 a year

salary, high school coaches face daily interpersonal scrutiny as meshing a group of diverse student-athletes into a cohesive unit is a formidable task (Bean, 2009). Manzo counter as he asserted the salary discrepancy between teachers and coaches underscored the importance of athletics: “It says that school boards in a lot of places place more value on athletics than academics” (p. 12). Jacob (2006) expanded upon the importance of athletics as he concluded athletic accomplishments were valued above academic success.

The revenue generated by high school sports programs provided justification for the high coaching salaries (Callan & Thomas, 2009). Callan and Thomas stated a coach’s compensation was connected to the revenue the sport generates. Callen and Thomas found consternation regarding the appropriateness of paying high school coaches six-figure salaries. They stated six-figure coaching salaries were inconceivable due to school budgetary constraints, but money still exists for multi-million stadium projects. Callan and Thomas cited the time commitments of coaches at large classification (4A and 5A) schools as most work 70-100 hour weeks and the in-school responsibilities of head football coaches (teaching responsibilities and athletic administrative duties). Callan and Thomas stated the administrative responsibilities and a 226-day contract of head football coaches increased the probability of earning higher wages. Callan and Thomas concluded the following: first, a positive correlation existed between a coach’s winning percentage and compensation; second, a positive relationship existed between student populations and coaches’ compensation - supported by a 0.29% increase in coaching salaries for every 100 student increase; however, the positive correlation between salary and student population was not applicable in one urban school district.

To illustrate the above stated salary and population discrepancy, Callen and

Thomas (2009) compared the head football coaching salaries of one urban school district's coaches and coaching colleagues from other districts. They found a 20% difference between the urban schools' coaching salaries and surrounding public schools' coaching salaries. Callen and Thomas stated the dense population of the urban area provided a higher applicant pool and reduced the probability of enhanced compensation packages to lure qualified applicants. The researchers concluded the quantifiable and qualitative variables influencing professional and college coaching salaries was applicable to high school football coaches in another state.

**Unstable nature of coaching profession:** In addition to the stated time requirements of coaching, the unstable nature of the coaching profession could provide justification for high school coaching salary discrepancies. Unfortunately, for coaches the expectations of vested groups are embedded in the fabric of communities, and eradicating the negative influences is a daunting task. Frantz (2008) and Burgess (2007) cited the insatiable desire of booster clubs and community members as sources of pressure.

For example, one town referred to as "Winnersville," possesses a storied high school football program and an indigenous desire for success which spans several generations (Rhoden, 1994). Rhoden found the town engendered all aspects of American high school football: a bridge of commonality as people of all races cheer on the city's team, over-zealous fans who crowd into the local coffee shop and analyze the previous Friday night game, and a caravan of buses and cars which travel to remote locations for games. The school's former principal stated, "But a coach who comes here must know in the back of his mind that a program which has had this kind of success over 75 years places a high premium on winning" (B-9).

Fainura-Wada (2003) discussed the perilous state of high school basketball coaches in a wealthy county. Fainure-Wada found head high school basketball coaches were overwhelmed by the lofty expectations of elite parents (Fainura-Wada). Fainura-Wada stated in four years, five high school head basketball coaches were relieved of their coaching duties.

Burgess (2007) and Fainura-Wada (2003) found the following factors contributed to the high attrition rates of high school coaches:

1. The firings and dismissals of coaches in college and professional sports are increasing, and it is trickling down to the prep ranks.
2. There is increased scrutiny as it relates to media, chat rooms, and recruiting services.
3. School systems and booster clubs are enhancing their athletic facilities to compete for the elite athletes in their respective counties.
4. The expectation of highly successful seasons is expected to be replicated, irrespective of the athletic skill and experience of the participants.
5. The intrusive nature of parents as it relates to hiring and firing coaches.
6. There is potentially an entitlement mentality in communities that boast higher than average median income.
7. School board officials are impervious to the service and dedication coaches give to the school system.

Unfortunately, Scantling and Lackey's (2005) and Fainura-Wada's (2003) findings regarding the instability and pressure in high school coaching were discussed by Buchanan (2006) as the researcher concluded high school coaching is a volatile

profession. Buchanan stated high school coaches were teachers first, unlike their professional and collegiate colleagues who glean six or seven figure incomes. With the barrage of moving signs found in front yards, scornful letters, and recent firings, Buchanan implored schools to reexamine the original intent of athletics. Buchanan's conclusions regarding the tenuous nature of high school coaching were supported by the following: a local high school head football coach was fired after a 1-10 season—the coach's first as head coach, and twelfth year coaching at the school; a nine-year head football coach was fired after registering the coach's only losing season. In the central part of one state, a high school football coach was fired after compiling a 9-11 record in two seasons.

Buchanan (2006) concluded incorporating a win-loss record as the sole criteria for hiring and firing coaches, placed schools in a perilous position. Buchanan stated a myopic viewpoint regarding winning could provide justification for coaches to discard discipline standards for student-athletes on the field and in the classroom. Buchanan opined high school athletic programs devoid of discipline negatively impact the academic environment for student-athletes.

**A high school's athletic program:** Stock and Solomon (2007) provided the sordid details of the separation between a state champion head coach and the school board. Stock and Solomon stated the high school's football team enjoyed unprecedented success on the national high school football scene and parlayed the success into a weekly national television show. The weekly episode chronicled the struggles, joys, and frustrations of coaches, football players, students, cheerleaders, and fans as the school's football program ascended to the upper pantheon of national high school folklore (Stock

& Solomon). During practices, games, and school, there was a central figure - the head coach. The success of the coach garnered him a mix of fame and criticism. Countering the stated criticism of the coach, a portion of the population stated the program's success garnered local and national prominence for the school.

Unfortunately, the head coach's resignation in the fall of 2007 ended a highly successful and controversial reign as the school's football coach (Stock & Solomon, 2007). The coach's resignation was the culmination of events which casted the school and its employees, student-athletes, and the coach, in the position of defending allegations of grade tampering and fiscal-mismanagement (Stock & Solomon). The firestorm commenced in June of 2007, as teachers alleged administrators changed the grades of two football players (Stock & Solomon). The authors found the school board's subsequent independent investigation revealed a potential lack of institutional control within the football program. In addition, during this time period the board opted for nonrenewal of the high school principal's contract.

The allegations levied against the school resulted in the board of education enlisting the investigative services of attorneys Sam C. Pointer, Jr.; William H. King, III; Jackson R. Sharman, III; S. Andrew Kelly Lightfoot; Franklin & White, LLC (2007). The focal points of the investigation were the following: possible favoritism and preferential treatment given to athletes, and particularly to football players, at the target high school, as well as issues relating to the overall conduct and management of the target school's football program (Pointer et al., p. 1).

The independent examination regarding preferential grade treatment for athletes at the high school, most notably the football players, was conducted by Pointer et al

(2007) and concluded the following: a) one athlete (referred to as Student #2 in the report) was allowed exam retakes and given enhanced reviews extending beyond the directives of the IEP and exceeded the accommodations for non-athletes; b) the same athlete (Student # 2) missed the required final in another class (Earth Science); however, at a later date the athlete was allowed to take the exam; c) a subsequent and inexplicable classroom teacher change in one class resulted in a curious change in grade for the second nine-week marking period, hence improving the athlete's GPA; d) of their own volition, the computer grade for Student # 2 was changed from an F to no-credit.

In addition to the issues with Student # 2's grades, Pointer et al. (2007) found evidence of undue pressure on non-tenured teachers to pass athletes. For example, a teacher/assistant football coach at the school encountered undue pressure from coaching colleagues and a school administrator to pass Student # 2 (Pointer et al.). Through email records and interviews with administrators, teachers, and coaches, Pointer et al. concluded the teacher/assistant football coach was implored by immediate coaching supervisors and the head coach to provide Student # 2 with make-up assignments

During the early part of 2007 football season, the evidence against the high school and the football team mounted. Stock and Solomon (2007) stated an assistant football admitted to being pressured by the head coach to change a player's grade, and an attorney review of the football program's finances found potential discrepancies. The 68-page report of one judge alleged the high school's vice principal was in collusion with the head football coach to encourage teachers to pass football players (Halley, 2007). Halley found the investigation cost the board of education \$151,000. The head football coach resigned in the fall of 2007, and the school board reassigned the coach to another position within

the school system for the remainder of the school year. The school board announced a \$120,000 annuity payment made by August 31, 2008 to the football coach (Stock & Solomon).

The allegations levied against the aforesaid high school and school board underscored the corporate nature of high school athletics (Gehring, 2004a). Schools espouse the virtues of high school sports; however, high school sports are a results driven business (Scantling & Lackey, 2005; Buchanan, 2006; Fainura-Wada, 2003). To illustrate the emphasis of producing successful high school sports teams, Scantling and Lackey found one state's high school coaching attrition rates increased from the 1980s to 1990s. Furthermore, Scantling and Lackey distributed surveys to high school principals of a state located in the Midwestern United States. Scantling and Lackey stated 25% of high schools reported high school coaching dismissals during the 1980s. The principals cited inadequate win-loss records as justification for the coaching dismissals (Scantling & Lackey). In the 1990s the coaching dismissals increased to 38%, and poor player-coach relationships and ineffective motivational strategies were cited as the reasons for termination (Scantling & Lackey).

**Additional negative effects on student athletes:** Frantz (2008) presented a divergent perspective regarding the negative effects of high school athletic participation. Frantz cited the extraordinary measures of student-athletes aspiring to appease parents, schools, community members, and coaches. Frantz described the elaborate scheme of one high school football player who tricked community members, coaches, and family members into believing he received a football scholarship from a public university. Frantz's illustration underscored an increasingly and disturbing theme; high school

athletics and the potential for notoriety is seductive and dangerous (Frantz).

Expanding upon the theme discussed by Frantz (2008), Livingstone (2005) discussed the passion and pressure for student-athletes to succeed athletically. The statistics cited by Livingstone emphasized the prevalence and severity of steroid abuse among high school student-athletes. Livingstone concluded steroid abuse doubled between 1991 and 2003. However, the scarcity of high schools testing for steroids during the period, a paltry 4%, was compelling. Livingstone found roughly two percent of one state's high school student-athletes tried or were taking steroids. In 2002, over 40,000 high school athletes in one state admitted using performance enhancing drugs.

Livingstone stated the athletes cited the inherent pressure to win and obtain an athletic scholarship as justification for steroid abuse. Livingstone concluded a coach's desire to win results in a passive stance pertaining to steroid abuse amongst student-athletes.

Yet, some state high school athletic associations are taking the initiative to test student-athletes for performance enhancing drugs. Profilet (2009) emphasized the long-term consequences of steroid abuse on the body, and the incongruence of competing against athletes who use performance enhancing drugs.

**High school athletic participation: A neutral perspective.** Whitley (1999) found the GPA scores of participatory students (students playing a sport) were higher than their non-participatory peers (students not playing a sport). Sitkowski (2008) and White (2005) found academic achievement of high participant student-athletes exceeded the achievement of low participant student-athletes. Conversely, Din (2005) conducted a causal-comparative study and found an ambiguous or neutral conclusion regarding athletic participation and its affect on academic achievement.

Din (2005) stated establishing a positive or negative relationship between athletic participation and academic achievement was complex. Research found non-cognitive aspects (referred to as psycho-social and psycho-educational by Din) indirectly improve academic achievement. The non-cognitive attributes fostered a deeper commitment and interest in school, increased teacher-student interaction, increased parental involvement, developed positive peer relationships with students of various ethnicities, and enhanced the connection to the school culture (Din). Intrinsically, Din stated athletics potentially imbued the self-esteem and independence of students.

The participants in Din's (2005) study attended five different high schools within four school districts, and the location of the schools were in the mountain region of a southeastern state. The schools possessed homogeneous characteristics - small, rural, a high percentage of free or reduced lunch students, average to low-average academic achievement (Din). The procedure and design required Din to compare preseason and postseason grades in English, Math, Science, and Social Studies; the school-sponsored activity was the independent variable and student-athletes' grades was the dependent variable. The prescribed instruments utilized by Din were the Dependent *t-test* and a Pearson *r-test* for team and course comparisons.

Din (2005) found the following: 1) The majority of student athletes demonstrated no noteworthy differences between the pre-season and postseason grades; 2) the team comparisons revealed similar results; 3) a small percentage of student athletes received lower and higher grades at the conclusion of the sports season—approximately 2-3 points in their averages. The team comparisons revealed four teams (considered a low percentage) received higher grades in several courses, and four teams received lower

grades in one course. Din questioned teachers regarding the inability of athletic participation to affect students' grades. The respondents posited time management was paramount for sports participation and students were cognizant of stringent eligibility requirements (Din).

### **Summary**

The research conducted by (Sitkowski, 2008; White, 2005; Whitley, 1999) concluded athletic participation demonstrated a positive effect on academic achievement. In White's study the author posited a positive correlation between increased sports participation and improved academic achievement. Whitley's study compared the achievement of non-athletes and athletes, and the researcher found the athlete group outperformed the non-athletes in the majority of comparisons. Sitkowski's conclusions were unique as the researcher stated non-cognitive attributes, diligence and responsibility, positively impacted academic achievement. The data found in the above studies asserted athletic participation positively impacted academic achievement.

Despite the quantifiable data demonstrating a positive effect, the commercialization of high school athletics is negatively affecting the academic achievement of student-athletes (Gehring, 2004a). Gehring stated schools are abandoning academic responsibilities. Obel-Omia (2007) stated schools build multi-million dollar athletic facilities but were devoid of funds for additional classrooms were demonstrating poor stewardship. Murphy (2008) surmised schools jeopardize the achievement of students when they hire coaches who possess minimal teaching experience and insufficient teaching credentials. Furthermore, Murphy questioned the practice of paying fulltime teaching salaries to coaches without assigning teaching responsibilities.

The assertions of Murphy (2008), Obel-Omia (2007) and Gehring (2004a) are compelling. However, the studies were devoid of data establishing a direct correlation between the actions of both the school systems and coaches and its negative effect on the academic achievement of student athletes. The potential establishment of an indirect relationship existed between the actions of the schools and the effect on academic achievement.

The researcher concludes the importance of academics is noteworthy as the probability of student athletes garnering a scholarship or becoming a professional athlete is minimal. Knox (2007) found the following: in 2003-04, of the 983,000 student athletes participating in high school football, only 5600 parlayed the athletic experience into a college playing career; of the 130,500 females playing high school basketball, 14,400 played later in college, and subsequent analysis found 20% quit prior to the athlete's senior year in college. The probability of college student-athletes turning pro rendered the following results: .03% for men's basketball, .03% for baseball, and .02% for women's basketball (Knox).

Furthermore, Knox (2007) found a high school student has a slightly better than a 1% chance of achieving an athletic scholarship, a 1/10 of 1% chance of becoming a professional athlete. America's high schools contain approximately one million high school football players and a half-million high school basketball players; however, only 150 will play football professionally and only 50 will play basketball professionally. Roughly 3% of college seniors play professional football, and a high school football player has a 6,000 to 1 chance exist to play in the National Football League, and a 10,000 to 1 chance exists for a high school basketball player to play in the National Basketball

Association. Unfortunately, the pre-adolescent student-athletes were uninformed regarding the remoteness of obtaining a professional contract. Cook (2003) stated student-athletes in the sixth, seventh, and eighth grade were being sold on a belief athletic success, not academic achievement, ensures lifelong success.

In conclusion, the findings cited by Gehring (2004a), Knox, (2007), Cook, (2003), Peltier & Laden (1999) implored school district vigilance regarding the academic achievement of the student-athletes entrusted to them. McMillen (1991) found American school children demonstrated learning gaps due to time expended on athletic endeavors. He stated the gaps in learning caused American students to fall behind students in other countries. The work of the National Association State Boards of Education is ensuring athletic ambitions do not override academic goals and achievement. However, a more comprehensive and consistent accountability model is required due to the proliferating commercialization of successful high school sports programs (Gehring, 2004a).

## **Chapter 3: Methodology**

### **Overview of the Study**

The researcher investigated the effect of athletic participation on the academic achievement of high school seniors in eastern Tennessee. Placing a greater importance on athletic achievement negatively impacts Adequate Yearly Progress (AYP) as defined by No Child Left Behind. In 2004 the NASBE stated, “An overemphasis on sports can undermine a high school’s academic mission” (Hoff, 2006, p. 9). AYP, as defined by the U.S. Department of Education website (2006) is a state’s measure of progress towards the goal of one-hundred percent of students achieving state academic standards in at least Reading/Language Arts and Math.

### **Design of the Study**

The research design for the study was causal comparative with a narrative component. The researcher compared the academic achievement of two groups: 1) senior student-athletes = high school students who participated in at least one high school sponsored athletic activity during their senior year; 2) senior non-athletes = high school students who did not participate in a high school athletic activity. Glatthorn and Joyner (2005) stated, “Causal comparative research (sometimes called ex post facto research) attempts to establish cause-and-effect relationships” (p. 100). In the study, the researcher attempted to establish a causal relationship between academic athletic participation and academic achievement for senior student-athletes (Glatthorn & Joyner). The descriptive component incorporated data from open-ended questions and articulated the results in a descriptive manner. The research sorted the descriptive data based on similar wording,

common themes, and similar responses (Ary, Razavieh, & Sorensen, 2006).

To determine the effect of athletic participation on academic achievement, the researcher compared the GPAs and ACT scores of the student-athlete and non-athlete groups. In addition, the researcher compared the GPAs and Act scores of the male and female student-athletes. The study's qualitative component was comprised of Likert scale items and short-answer question analysis, and included teachers' perceptions regarding athletic participation and academics. The researcher followed the requisite protocol of the target high schools' governing board of education pertaining to confidentiality of student and teacher data. The researcher and the researcher's chair composed letters that described the nature and requisite data for conducting the study. The letters were forwarded to the board of education's assistant superintendent for review. The county school system granted permission to conduct the study and collect student/ teacher data at the targeted high schools (see Appendix A). The data gathering tool pertaining to teacher perceptions is located in Appendix B.

### **Selection of Participants**

The study contained two groups: student athletes and non-athletes chosen from students who graduated from three Eastern Tennessee high schools in 2009. In the study, the three high schools were referred to as Stephen Johnson High School, Peter Smith High School, and Garrett Johnson High School. The GPAs and ACT scores of the 2009 graduating seniors were the data utilized in the study. The determining factors for inclusion into the student-athlete group were the following: 1) graduation from the targeted high school in 2009, 2) participation in at least one interscholastic sport which was under the governance of the TSSAA (Tennessee Secondary School Athletic

Association) during the 2008-09 school year, and 3) a recent ACT scores. Inclusion into the non-athlete group required the following: 1) graduation from the targeted high school in 2009 and 2) a recent ACT score. For both groups the most recent ACT score was utilized in the study.

The teachers integrated into the study were comprised of the three target schools' teaching faculty. The study required teachers to complete a five-question Likert scale survey (Appendix B) with a single-response option to each question of 1) strongly disagree 2) disagree 3) somewhat disagree 4) somewhat agree 5) agree 6) strongly agree. Furthermore, each faculty participant provided short answer responses to three open-ended questions pertaining to athletics and academics at the target high school.

### **Community/School Demographics**

The community encompassing Stephen Johnson High School #1 was approximately 17,000, and the demographic data revealed over 97% was Caucasian. The educational achievement of the community revealed an educational level of high school or higher for 80% of the population, and 18% possessed a minimum of a bachelor's degree. The majority of the household incomes fell in the range of \$15,000 to \$75,000 with the \$50,000-\$75,000 containing the greatest percentage of the population ([www.zipskinny.com](http://www.zipskinny.com)). According to the Tennessee Department of Education website as of May 2008, the student population of Stephen Jones High School was approximately 1,200. Student demographics were as follows: Caucasian = 97.4%, Hispanic = 1.2%, African American = 0.8%, Asian/Pacific Islander = .4%, Native American/Alaskan = 0.2%, economically disadvantaged = 29.0%, female = 46.9% and male = 53.1% ([www.state.tn.us/education/2007-2008](http://www.state.tn.us/education/2007-2008)).

The community encompassing Peter Smith High School was approximately 5,600, and the demographic data revealed the 93% was Caucasian and 3.2% was Hispanic ([www.zipskinny.com](http://www.zipskinny.com)). Educationally the website stated 69% of residents possessed a high school diploma or higher and 11% possessed a bachelors degree or higher. The majority of household incomes of residents were in the \$15,000 to \$50,000 range, with the \$15,000-\$24,999 and \$25,000-\$34,999 ranges demonstrating the highest percentages ([www.zipskinny.com](http://www.zipskinny.com)). According to The Tennessee Department of Education website's as of May 2008, the student population of Peter Smith High School was approximately 700 students. Student demographics were as follows: Caucasian = 91.4%, Hispanic = 5.7 %, Asian/Pacific Islander = 1.8 %, African American = 1%, economically disadvantaged = 54.5 %, female = 44.9 % and male = 55.1 %.

The community encompassing Garrett Johnson High School was approximately 5,000 people, and the racial demographics were as follows: Caucasian = 95.9%, Hispanic/Latino = 1.5%, Asian = 1.3%, African American = 0.2%, Hawaiian/Pacific Islander = 0.1% ([www.zipskinny.com](http://www.zipskinny.com)). Educationally the website stated 81.6% of the population possessed a high school diploma or higher and 19.4% achieved a bachelor's degree or higher ([www.zipskinny.com](http://www.zipskinny.com)). The majority of household incomes of the residents were in the \$25,000-\$34,999 and \$35,000-\$49,999 ranges. Garrett Johnson High School's population was approximately 600 students in grades 9-12. The student demographics were as follows: Caucasian = 94.6%, Hispanic = 2.4%, Asian/Pacific Islander = 1.7%, Native American = 0.9%, African American = .3%, economically disadvantaged = 44.7%, female = 49.2% and male = 50.8% ([www.state.tn.us/education/2007-08](http://www.state.tn.us/education/2007-08)).

## **Procedures**

The high schools that participated in the study were under the auspices of the same county school system. The ACT and GPA data which was requested conformed to the school system's guidelines regarding student confidentiality (see Appendix A) and Liberty University IRB guidelines (see Appendix C). First, written permission was obtained from the school system's director of curriculum and instruction to gather the ACT and GPA data. Next, the board of education's written permission was forwarded to the IRB at Liberty University and a copy was placed in the paper's appendices. The request stated the purpose of the study, the data needed, the steps taken to ensure student confidentiality, and a letter from the researcher's dissertation chair which corroborated the information in the researcher's request. The director of curriculum and instruction and the university chair's permission forms were presented to each respective school's building principal.

## **Data Gathering Methodology**

Once the researcher presented the target high schools' principals with the school system's letter and Liberty University's IRB forms which granted permission to conduct the study, the researcher provided the principals with an overview of the study. The researcher utilized the target high schools' guidance staff to gather the ACT and GPA data. Prior to collecting the data, the researcher conducted a preliminary meeting with the guidance counselors and provided the required documentation - IRB forms, school system permission forms.

IRB regulations mandated the removal of identifying information (student names, student identification numbers). The school guidance counselors placed the data from the

stated categories onto an excel spreadsheet. Each student and student-athletes' data utilized a separate row on the spreadsheet; in addition, six columns existed for data on the spreadsheet: column 1 = each student was randomly assigned a number in ascending order; column 2 = each student who participated in at least one sport governed by the TSAAA during the 2008-09 school year contained an asterisk (\*) in this column, while a blank space represented no athletic participation; column 3 = each student's gender was stated; column 4 = each student race was identified; column 5 = each student ACT score was stated; column 6 = each student GPA was stated. The data enabled the researcher to answer the following Guiding Questions and the corresponding null hypotheses:

*Guiding Question 1:* What effect does athletic participation have on academic achievement for student-athletes when compared to the student population?

Ho1 1: There will not be a difference between the ACT scores of senior student-athletes and non-athletes who are members of their high school senior class.

Ho1 2: There will not be a difference in the GPA scores of student-athletes and non-athletes who are members of their high school senior class.

*Guiding Question 2:* Is there a statistically significant difference between the senior male student-athletes and the female senior student-athletes?

Ho2 1: There will be no difference in the ACT scores of both the male and female student-athletes who are members of their senior class.

Ho2 2: There will be no difference in the GPA scores of both the male and female student-athletes who are members of the senior class.

The teacher data collected corresponded and answered guiding questions 3 through 7. The teacher data was comprised of five Likert scale items and three open-

ended responses. Procedurally, the researcher distributed the surveys to the three target high schools' teachers at a faculty meeting. Prior to distributing the surveys, the researcher provided an overview of the study and clarified teacher questions regarding the interpretation of Likert scale items and open-ended questions. The researcher then vacated the faculty meeting for a prescribed period of time (15 min) as teachers completed the survey. Once the survey was completed, the researcher remained on site to answer additional teacher questions. The teachers placed the surveys in a designated location at the faculty meeting.

The survey items are in Appendix B. The first five items of the survey utilized a Likert Scale to answer items. The target high schools' teachers chose one response for the first five items, and a corresponding score was assigned by the researcher to each teacher's response. For example, strongly disagree = 1, disagree = 2, somewhat disagree = 3, somewhat agree = 4, agree = 5, strongly = 6. In questions 6-8, the respondents provided written responses to the open-ended questions. The researcher coded the responses of the participants.

For the teacher data, listed below is the guiding question and the corresponding survey question.

*Guiding Question 3:* In what ways do teachers perceive the effect (positive or negative) of athletic participation on student achievement? Survey question number 6 provided the requisite data and was answered in an open-ended manner.

*Guiding Question 4:* How does school system involvement as it relates to athletic participation affect the academic achievement of senior male and female student-athletes? Survey question 7 required an open-ended response and provided the requisite

data to answer guiding question 4.

*Guiding Question 5:* How does parental involvement affect the academic achievement of senior male and female student athletes? Survey question 8 required an open-ended response and provided the requisite data to answer guiding question 5.

*Guiding Question 6:* How do the school and community perceive the importance of athletic participation and academic achievement? The overall mean score of Likert scale items 1-4 (Table 6) provided the requisite data to answer guiding question 6.

*Guiding Question 7:* How does athletic participation impact AYP status of the target school? Likert scale item 5 (Table 6) provided the requisite data to answer guiding question 7.

### **Data Analysis Procedures**

The *two-tailed independent t-test* compared the ACT and GPA scores of the student-athlete and non-athlete groups and provided the requisite data to answer the two guiding questions and corresponding null hypotheses. The *two-tailed independent t-test* enabled the researcher to determine the effect of athletic participation on academic achievement as measured by ACT and GPA scores of the student-athlete group when compared to the non-athlete group. In order to determine potential differences or similarities between the male and female student-athlete subgroups as it relates to GPA and ACT scores, the researcher utilized a *two-tailed independent t-test*

The Likert rating scale assessed teachers' perceptions regarding athletics and academics. The researcher determined the overall mean for each Likert scale item at the three target high schools. The researcher reported the results for each school and then computed its mean scores on each item. The researcher incorporated bar graphs to

provide visual reinforcements for the mean scores at the three target high schools.

In addition to the five Likert scale items (Table 6), the researcher incorporated three open-ended questions (Table 5) for the teaching staffs at the three target high schools. Utilizing coding procedures, the researcher investigated the teachers' responses and procured similar themes, common responses, and identical wording through the use of coding. In order to categorize the empirical data, the researcher identified and utilized a primary category for the data: perspectives held by subjects. The categories' appropriateness is underscored by its ability to identify commonalities regarding the teachers' perspectives on the topic and the setting (Ary, Jacobs, Razavieh, & Sorenson, 2006). In the study, the researcher procured teachers' perspectives on topics germane to athletic participation and academic achievement.

To maximize the number of teachers who answered the open-ended questions (Table 5), the researcher permitted the target high schools' teacher to respond to the open-ended questions (Table 5) in the following manner: 1) circling or stating a single word, 2) writing a phrase, or 3) writing several sentences. Teachers who supported his or her conclusions with phrases or sentences enabled the researcher to articulate a detailed analysis.

Upon examining the teachers' responses to the first open-ended question (Table 5), the researcher attached a numerical value to each response and categorized the response based on the affixed value. The researcher grouped the teacher's responses to the first open-ended question (Table 5) into four categories: positive, mixed, negative, no effect. Responses deemed as "positive" were labeled with a number "three"; "mixed responses" were labeled with a number "two"; "negative" responses were labeled with a

number “one”; and “no effect” responses were labeled with a “zero”.

For the second open-ended question (Table 5), the researcher categorized and attached a numerical value to each target high schools teachers’ response. The following were the criteria for evaluating each response: if the response was a value of “one” the school system and the school (encompassing teachers, coaches, related personnel) “directly affects” the academic achievement of senior male and female student-athletes; conversely, a value of “zero” indicates “no effect” pursuant to the school system and the school’s effect on the academic achievement of senior male and female student-athletes.

The final open-ended question (Table 5) categorized the target high schools’ teacher responses based on the assigned numerical value. The researcher numerically categorized each response into three categories. Responses categorized as “two” concluded parental involvement resulted in a “direct effect” upon the academic achievement of senior male and female student-athletes. A response with a “one” represented a “mixed” effect on the academic achievement of senior male and female student-athletes. Responses categorized as a “zero” determined parental involvement produced “no effect” on the academic achievement of senior male and female student-athletes.

### **Likert Scale Items**

The researcher calculated an overall mean score for the three target high schools on Likert scale items questions 1 through 4 (Table 6). The overall mean for the surveys items provided requisite data to answer Guiding Question 6. The teachers were provided six options, and the researcher assigned a corresponding numerical value to each response ranging from (strongly agree = 6, agree = 5, somewhat agree = 4, somewhat

disagree = 3, disagree = 2, strongly disagree = 1).

For Likert scale survey items 1 through 4 (Table 6), the researcher computed the overall mean score on Likert scale items 1-5 for each target high school and then provided bar graphs for items 1-5 at the three target high schools. The researcher then calculated an overall mean for each Likert scale item based on the three target high schools' teachers' responses. For example, for the three target high schools teachers' responses to Likert scale item 1 the researcher determined the overall mean for the three target high schools. The researcher followed the identical procedure for determining the mean on Likert scale items 2, 3, 4, 5. To answer guiding question 6, the researcher computed an overall mean score at the three target high schools for Likert scale items 1-4. The overall mean at the three target high schools for Likert scale item 5 provided the data to answer guiding question 7. The researcher concluded overall mean scores greater than four ( $M > 4$ ) demonstrated a "strong positive result".

### **Instrumentation**

The researcher utilized the student-athletes' and non-athletes' composite ACT scores. The researcher found the student-athletes' and non-athletes' GPAs were stated and did not require numerical conversion. The Likert rating scale was the prescribed method for determining the teachers' attitudes on the topic. Open-ended responses provided the researcher with empirical evidence to make conclusions. The researcher notes the Likert survey items and the open-ended questions were designed by the researcher. Due to the self-created nature of the survey items and questions, the researcher selected a pilot site in order to increase validity.

**Pilot survey and feedback.** The researcher selected a school which was not

involved in the study. Individually the researcher asked nine teachers for feedback regarding the clarity of the survey's items and directions. The researcher received applicable feedback from the respondents. First, seven of the nine respondents asked for an overview of the project. Second, five of the nine respondents expressed concern regarding confidentiality. For example, the pilot participants asked: will the teachers place their name on the document? Third, one of the respondents found the researcher spelled affect instead of effect. Last, one respondent noted the Likert survey questions were devoid of an option for participants lacking the requisite knowledge to answer specific questions.

The researcher concluded an option for teachers unable to successfully respond was unnecessary. The researcher affirmed the potential for first-year teachers to provide insufficient data. However, the survey was conducted in the middle of the second semester, and the inexperienced teacher was acclimated to the school culture.

**Reliability/Internal Consistency: ACT.** The ACT website's student manual included reliability information for each subject and its subcategories. For purposes of the study the researcher will provide the median reliability and standard error measurements (SEM) for the four subject areas and the overall composite score for the ACT. The reliability/internal consistency were as follows: 1) English- median reliability = .91, median SEM = 1.71; 2) math- median reliability = .91, median SEM = 1.47; 3) reading- median reliability = .85, median SEM = 2.18; 4) science- median reliability = .80, median SEM = 2.00; composite = .96, median SEM = .94.

**Validity of Likert Scale survey:** The pilot group evaluated the Likert scale survey items and the open-ended questions and determined the items and questions to be

appropriate and relevant to the topic. The pilot group was composed of nine teachers who were not affiliated with the study. The researcher intentionally focused on members of the pilot school's teaching staff as the target high schools' teachers completed the actual survey and open-ended question. The pilot school's teachers possessed professional knowledge of high school athletics, academics, and the three target high schools. The pilot group of teachers stated the questions were appropriate to the topic and represented a broad range of subcategories under athletics and academics. In addition, the questions were conducive to obtaining teachers' perceptions regarding athletics and academics in the high school setting without bias. The researcher concludes the Likert scale survey items and open-ended questions meet the requisite criteria for face validity.

## Chapter 4: Data Results

### Introduction

The data collected in the study answered seven guiding questions: (1) what is the effect of athletic participation on academic achievement for student-athletes when compared to non-athletes; (2) is there a statistically significant difference between the senior male student-athletes and the senior female student-athletes; (3) in what ways do teachers perceive the effect (positive or negative) of athletic participation on student achievement; (4) how does school system involvement as it relates to athletic participation affect the academic achievement of senior male and female student-athletes; (5) how does parental involvement affect the academic achievement of senior male and female student athletes; (6) how do the school and community perceive the importance of athletic participation and academic achievement; (7) how does athletic participation impact AYP status of the target school?

The corresponding null hypotheses for guiding question 1 were the following: there will be no difference between the ACT scores of student-athletes and non-athletes who are members of their high school senior class; there will be no difference between the GPA scores of student-athletes and non-athletes who are members of their high school senior class. The corresponding null hypotheses for guiding question 2 were the following: there will be no difference in the ACT scores of both the male and female student-athletes who are members of their senior class; there will be no difference in the GPA scores of both the male and female student-athletes who are members of their senior class. The researcher utilized the ACT and GPA scores of senior student-athletes to

answer guiding questions 1 and 2 and the corresponding null hypotheses.

### **Participants**

The senior student-athletes, non-athletes, and teaching staffs at Stephen Johnson High School, Peter Smith High School, and Garrett Johnson High School were the participants in the study. The parameters for inclusion into the study were the following: first, the student athletes and non-athletes graduated in 2009 from the target high schools; second, the student athletes and non-athletes must have taken the ACT during their high school matriculation; third, the student athletes must have participated in a sport which was governed by the TSSAA. The teachers included in the study were required to teach at the target high school during the 2008-09 school year.

The total number of 2009 graduates at Stephen Johnson High School totaled 248. Of the 248 graduates, 182 (73%) met the criteria for inclusion into the study. The sample size of the student-athlete group was 73 which represented approximately 40.1% of the study's included graduates. The student-athlete group was comprised of 48 males (65.8% of the student-athlete group, 26.4% of the study's included graduates) and 25 females (34.2% of the student-athlete group, 13.7% of the study's included graduates). The total for the non-athlete group was 109 and accounted for 59.9% of the study's included graduates. The non-athlete group contained 35 males (32.1% of the non-athlete group, 19.2% of the study's included graduates) and 74 females (67.9% of the non-athlete group, 40.1% of the study's included graduates). The racial demographics of the 2009 graduating class were as follows: Caucasian = 178 (97.8%); Hispanic = 3 (1.65%); African American = 1 (.55%).

The 2009 graduating class at Peter Smith High School contained 158 students.

The criteria for the study allowed for 121 students (76.6%) of the graduating class to be included. The sample size of the student-athlete group was 38 which represented 31.4% of the study's included graduates. The student-athlete group was comprised of 23 males (60.5% of the student-athlete group, 19% of the studies included graduates) and 15 females (39.5% of the student-athlete group, 12.4% of the study's included graduates). The non-athlete group consisted of 83 students accounting for 68.6% of the study's included graduates. The non-athlete group was comprised of 37 males (44.6% of the student group, 30.6% of the study's included graduates) and 46 females (55.4% of the non-athlete group, 29.1% of the study's included graduates). The racial demographics of both groups were as follows: Caucasian = 110 (90.9%); Indian = 6 (4.95%); Hispanic = 3 (2.5%); African American = 2 (1.65%).

Garrett Johnson High School's graduating class in 2009 was 123, and 101 (82.1%) were included in the study. The sample size of the student-athlete group was 64 and translated into 63.7% of the students participated in athletics. The student-athlete group was comprised of 33 males (51.6% of the student-athlete group, 32.7% of the study's included graduates) and 31 females (48.4% of the student-athlete group, 30.7% of the study's included graduates). The non-athlete group totaled 37 students and accounted for 36.6% of the study's included graduates. The non-athlete group was comprised of 16 males (43.2% of the student subgroup, 15.8% of the study's included 2009 graduates) and 21 females (56.8% of the student group, 20.8% of the study's included graduates). The combined racial demographics of both groups were as follows: Caucasian = 99 (98.02%); African American = 1 (.99%); Hispanic = 1 (.99%).

The total sum of student athletes and non-athletes at the three target high schools

included in the study was 404. The total sum of the student-athlete group was 175. The total sum of the non-athlete group was 229. The respective teaching staffs at Stephen Johnson High School, Peter Smith High School, and Garrett Johnson participated in the study by completing an identical five-item Likert survey with teachers choosing one response out of six possibilities for each item. The following were the five Likert survey items: Item 1: Athletics are of great importance at the target high school; Item 2: Academics are of great importance at the target high school; Item 3: Athletics are of great importance in the target school community; Item 4: Academics are of great importance in the target school community; Item 5: The target school is making adequate yearly progress as it relates to graduation rates and achievement testing?

For each teacher's response, the researcher assigned a corresponding numerical value (strongly disagree = 1, disagree = 2, somewhat disagree = 3, somewhat agree = 4, agree = 5, strongly agree = 6). The researcher utilized the numerical system to compute the school's overall mean score for each item. To provide visual representation, the researcher incorporated bar graphs into the study which represented each target high schools' mean scores on the five Likert scale items and one graph displaying three target high schools' mean scores. Additionally, the teachers responded to three open-ended questions. The responses were coded to identify similar themes, common responses, and identical wording.

### **Guiding Questions/Results**

*Guiding Question 1:* What is the effect of athletic participation on academic achievement for student-athletes when compared to the student population? In order to answer guiding question 1, the researcher compared the ACT and GPA scores of the

student-athlete (Group 1) and non-athlete (Group 2) groups. For the ACT scores (Table 1), a *two-tailed independent t-test* resulted in  $t = 1.72$  and  $p = .086$ . The researcher determined the 95% confidence interval of the difference was from -0.11 to 1.69. Utilizing a .05 rejection criteria, the  $p = .087$  for the ACT scores was “not statistically significant” ( $.05 < .086$ ). Hence, confirming the null hypothesis Ho11 which stated: there will be no difference between the ACT scores of student-athletes and non-athletes who are members of their high school senior class.

Table 1

*ACT Comparison: Senior student-athletes and non-athletes*

Group	n	M	SD	t	p<.086
Student athletes	175	22.177	4.663	1.722	.086
Non-athletes	229	21.389	4.500		

The comparison between the GPAs of the student-athlete and the non-athletes groups (Table 2) utilized a *two-tailed independent t-test* and resulted in a  $t = 1.25$  and  $p = .216$ . The 95% confidence interval of the difference was from: -0.040 to 0.179. Utilizing a .05 rejection criteria, the  $p = .216$  for the GPA scores was “not statistically significant” ( $.05 < .216$ ). The findings confirmed null hypothesis Ho12: there will be no difference between the GPA scores of student-athletes and non-athletes who are members of their high school senior class. The researcher utilized the data to answer guiding question 1.

Table 2

*GPA Comparison: Senior student-athletes and non-athletes*

Group	n	M	SD	t	p<.216
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Student athletes	175	3.277	.550		
				1.251	.216
Non-athletes	229	3.208	.558		

*Guiding Question 2:* Is there a statistically significant difference between the senior male student-athletes and the senior female student-athletes? In order to answer guiding question 2, the researcher compared the ACT and GPA scores of the senior male student-athletes and the senior female student athletes. For the comparison of ACT scores (Table 3), a *two-tailed independent t-test* resulted in  $t = 2.48$  and  $p = .014$ . The 95% confidence interval of the difference was from: 0.36 to 3.15. Utilizing a .05 rejection criteria, the  $p = .014$  was considered to be “statistically significant” ( $.05 > .014$ ); hence, rejecting null hypothesis  $H_0$ : there will be no difference in the ACT scores of both the male and female student-athletes who are members of their senior class. The researcher utilized the ACT data to answer guiding question 2.

Table 3

*ACT comparison: Male and female senior student-athletes*

Group	n	M	SD	t	p>.014
Male Student-athletes	103	21.456	4.700		
				2.482	.014
Female Student-athletes	72	23.208	4.440		

The comparison between the GPA scores (Table 4) of both the senior male and the senior female student-athletes utilized a *two-tailed independent t-test* and resulted in

$t$ -value = 3.49 and  $p$ -value = 0.0006. The researcher determined the 95% confidence interval of the difference was from: -0.4478 to -0.1247. Utilizing the .05 rejection criteria, the  $p = 0.0006$  was considered to be “extremely statistically significant” ( $.05 > .0006$ ); hence, rejecting null hypothesis  $H_{o22}$ : there will be no difference in the GPA scores of both the male and female student-athletes who are members of their senior class.

Table 4

*GPA comparison: Male and female senior student-athletes*

Group	n	M	SD	t	$p > .001$
Male Student-athletes	103	3.159	.564		
				3.492	.001
Female Student-athletes	72	3.446	.484		

*Guiding Question 3:* In what ways do teachers perceive the effect (positive or negative) of athletic participation on student achievement? Open-ended question 1 (Table 5) corresponded to and answered guiding question number 3. Analysis of teachers’ responses from the three target high school to the first open-ended question (Table 5) resulted in the following: 70/107 (65.4%) concluded athletic participation “positively affected” student achievement at the target high schools.

Table 5

*Open-Ended Response Questions*

- 
1. How do you perceive the effect (positive or negative) of athletic participation on student achievement?
  2. How do schools and their respective school systems affect the academic achievement

of senior male and female student-athletes?

3. Do you find that parental involvement affects the academic achievement of senior male and female student-athletes?

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Responses from the three target high schools' teachers revealed 11 teachers attributed the "positive effect" to "the student athlete eligibility standards which motivate students to pass classes and remain eligible for athletic competition." Further analysis of the "positive effect" group found nine concluded, "Athletic participation positively affects academic achievement at the target schools due to the discipline, responsibility, and time management skills athletics developed." The remaining target high schools teachers' results were as follows: 17/107 (15.9%) = "mixed effect"; 8/107 (7.5%) = "negative effect"; 6/107 (5.6%) = "no effect"; and 6/107 (5.6%) = "no response."

Analysis of teachers' responses to open-ended question 1 (Table 5) found correlations between the research cited in the study and the teachers' statements regarding the ability of athletic participation to develop effective character attributes. Bukowski (2001) stated Debosz and Beaty (1999) compared the demonstrated leadership skills of high school student-athletes and non-athletes. Debosz and Beaty found the student athletes demonstrated the attributes of effective leadership—self-discipline, perseverance—at a much higher rate than their non-athlete peers. Butterfield and Brown (1991) extolled the positive characteristics of athletic participation as student-athletes are taught and develop discipline, diligence, and responsibility.

Analysis of Peter Smith High School's teacher responses to the first open-ended question (Table 5) revealed the following: twenty-seven teachers concluded athletic participation positively affects academic achievement. Subsequent analysis of the

teachers' responses who asserted athletic participation positively affects academic achievement, found the "positive effect" of athletic participation on academic achievement was due to "student-athlete eligibility standards" as student-athletes not passing a requisite amount of courses would be ineligible for high school athletic competition.

The teachers at Peter Smith High School who asserted the effect of athletics on academics was "mixed" totaled seven. A faction of the "mixed effect group" underpinned their conclusions with the following statements: 1) "It is dependent on the coach and the sport; 2) the community values athletics over academics; 3) student-athletes believe they are entitled to preferential treatment in the classroom." The teachers who concluded athletics "negatively impacted academic achievement" totaled six as "most students are unable to manage the rigors of academics and the time requirements of athletic training and competitions." One teacher stated athletic participation produced "no effect" on academic achievement as "students are allowed to participate in athletics despite failing classes."

Peter Smith High Schools' teachers who stated student athletes are unable to balance athletics and academics were discussed by Peltier and Laden (1999). The authors asserted the practice, competition, and travel demands for intercollegiate student-athletes negatively impacts academic achievement. McMillen (1991) stated time expended on athletic practices and competitions further the learning discrepancy between American students and their global counterparts.

The teachers at Garrett Johnson High School who concluded the effect of athletic participation on academic achievement was "positive" totaled 19. In summarizing the

teachers' responses, a portion supported his or her conclusion of "positive" by stating, "Athletic participation develops self-discipline and perseverance, provides academic motivation due to eligibility standards, and keeps students out of trouble."

Additional responses from Garrett Johnson High School revealed two teachers concluded the effect of athletic participation on academics was "mixed" as "athletics interrupt the school schedule." Two teachers concluded the effect of athletic participation on academic achievement was "neither positive nor negative as students are not penalized athletically for their grades". The teachers' indictment of relaxed academic eligibility requirements for student athletes was stated in the study by Gehring (2004a). Four teachers did not respond to the first open-ended question.

The teachers at Stephen Johnson High School who concluded the effect of athletic participation on academic achievement was "positive" totaled 24. Eight teachers supported his or her conclusion of "positive" by stating, "Athletics provide motivation to achieve academically due to eligibility requirements". In addition, three teachers asserted athletic participation develops attributes such as "responsibility, discipline" which are conducive to academic success. The ability of athletic participation to develop effective character attributes was found by Sitkowski (2008).

Further responses from Stephen Johnson High Schools' teachers found seven teachers concluded the effect of athletic participation on academic achievement was "mixed". Three teachers supported their opinions of "mixed" by stating: "1) athletes graduate despite poor grades; 2) the academic accountability at the target high school is inconsistent." The teachers who stated the effect of athletic participation on academic achievement was "negative" totaled two. The teachers who concluded a "negative effect"

supported their conclusions by stating, “The academic standards for student athletes are too low, and there are too many resources for athletics”. Three teachers stated “no effect” for athletic participation on academic achievement. One teacher yielded “no response”.

*Guiding Question 4:* How does school system involvement as it relates to athletic participation affect the academic achievement of senior male and female student-athletes? The second open-ended question (Table 5) found 77/107 (72.0%) of the target high schools’ teachers concluded school system involvement and their respective school systems “directly affect” the academic achievement of senior male and female student-athletes. Open-ended question 2 (Table 5) corresponded to and answered Guiding Question 4.

Further analysis of the teachers’ responses who stated “direct effect” found 11 teachers stated, “The target school and school system directly affect the academic achievement of senior male and female student-athletes by articulating and enforcing student-athlete eligibility requirements.” Countering the belief the school and the school system enforce student-athlete eligibility requirements, three teachers concluded, “The target school system and schools’ direct effect is negative as it relates to the academic achievement of senior male and female student-athletes. Special concessions for star athletes and low academic expectations for student athletes contribute to the problem.”

Additional analysis of teachers’ responses from the three target schools’ teachers revealed 6/107 (5.6%) concluded the target school and school system produced “no effect” on the academic achievement of senior male and female student-athletes. The “no response” group from the three target high schools’ teachers was 24/107 (22.4%).

The teachers at Peter Smith High School who stated “direct effect” to the second-

open-ended question (Table 5) totaled 36. Subsequent analysis of the “direct effect” groups’ responses revealed the emergence of two predominant factions. Nine teachers concluded the “direct effect” is underscored by the “ability of the school system to enforce the athletic eligibility requirements for student athletes.” The second faction within the “direct effect” group contained four teachers who concluded the “direct effect” of “teachers, guidance counselors, and coaches” is more impactful on the academic achievement of senior male and female student-athletes. The teachers who concluded the school system and the school produced “no effect” on the academic achievement of senior male and female student-athletes totaled two. One of the two teachers concluded, “The self motivation of students is a bigger determinant of academic success when compared to the role of schools.” Four teachers did not respond to open-ended question 2 (Table 5).

The number of teachers at Garrett Johnson High School who concluded the school system and the school “directly affects” the academic achievement of senior male and female student-athletes totaled 16. Four teachers from the “direct effect” group summarily asserted, “Schools set the tone by encouraging, demanding, and rewarding the academic achievement of senior male and female student-athletes.” One of the “direct effect” respondents stated, “School systems affect academic achievement when they adhere to grade standards as seniors have trouble staying motivated”. In addition, one teacher concluded, “The target school’s class scheduling system is an important factor in student athlete academic success.” One teacher stated school systems and schools produced “no effect” on the academic achievement of senior male and female student-athletes. The “no effect” teacher opined, “It is not realistic for schools to affect academic

achievement of student athletes.” Ten of Garrett Johnson High School’s teachers did not respond to open-ended question 2 (Table 5).

The teachers at Stephen Jones High School who concluded the school system and the school “directly affects” the academic achievement of senior male and female student-athletes totaled 25. Of the 25 teachers who stated the “direct effect” of the school system and the school, seven concluded the athletic eligibility standards of the target school system and school were the reasons for the “direct effect”.

However, the above stated seven teachers presented distinct perspectives pursuant to the school’s eligibility standards. Subsequent analysis revealed 5/7 teachers asserted, “The athletic eligibility standards of the target school system and school ensure senior male and female student-athletes meet the requisite GPA and course credit requirements to succeed academically”. In contrast, 2/7 teachers asserted, “The school system’s athletic eligibility standards are insufficient at the target school as senior male and female student-athletes are underachieving academically.” Additional analysis of teachers’ responses, found two teachers cited the “encouragement teachers and coaches demonstrate at the target schools” to illustrate the stated “direct effect”. Three teachers stated the school system and the school produced “no effect” on the academic achievement of senior male and female student-athletes. Ten teachers “did not respond” to the open-ended question number 2 (Table 5).

*Guiding Question 5:* How does parental involvement affect the academic achievement of senior male and female student-athletes? The final open-ended question (Table 5) corresponded to and answered guiding question 5. The third open-ended question (Table 5) resulted in 88/107 (82.2%) of target high schools’ teachers concluding

the effect of parental involvement on the academic achievement of senior male and female student-athletes was a “direct effect”. The summary of the teachers’ responses from the “direct effect” group found 27/88 (30.7%) asserted, “Parental involvement in school-wide activities and acute knowledge of college entrance requirements positively affected the academic achievement of senior male and female student-athletes.”

Additional analysis of the “direct effect” group found 4/88 (4.5%) stated, “Parental involvement is the biggest determinant of academic success”; and 3/88 (3.4%) of the “direct effect” respondents concluded, “A positive correlation exists between parental involvement and student athlete academic achievement. Incorporated into the “direct effect” group was the negative academic effect of “uninvolved parents” which totaled 8/88 (9.1%). Four of the eight teachers who concluded “uninvolved parents” produce a “direct negative effect” stated the following: “Parents attend all athletic events; however, they rarely attend PTO conferences or monitor academic progress.”

The teachers who concluded parental involvement resulted in a “mixed effect” were 6/107 (5.6%). Subsequent analysis within the “mixed effect” group revealed 4/6 teachers’ responses were summarized by the following: “parental involvement in academics is only present if athletic participation is jeopardized; the effect of parental involvement in academics was sometimes successful.” The “no effect” group totaled five (5/107, 4.7%). Within the “no effect” group, three teachers stated, “Parental involvement is non-existent at the target high school particularly by the student-athletes’ senior year.” One teacher from the “no effect” group opined, “Coaches and peers affect academic achievement more than parents.” Eight teachers did not respond to the open-ended question (Table 5).

The teachers at Peter Smith High School who concluded parental involvement resulted in a “direct effect” upon the academic achievement of senior male and female student-athletes totaled 33. The “direct effect” stated by the teachers demonstrated contrasting viewpoints on parental involvement. Twenty-seven of the 33 teachers (27/33) in the “direct effect” group of teachers collectively concluded the following: “1) parental involvement at the target school was positive as evidenced by attendance at parent teacher conferences; 2) parents are cognizant the requisite coursework for college admission; 3) open communication motivates senior student-athletes to succeed academically.”

Presenting a contrasting viewpoint within the “direct effect” group teachers, six teachers concluded a lack of parental involvement “negatively” and “directly affected” the academic achievement of male and female student-athletes. Four of the six teachers (4/6) cited the importance parents place on athletics. The teachers asserted, “Parents are unable to attend PTO conferences; however, parents attend athletic events regularly which results in the student athlete developing incongruent priorities (students adopt a philosophy: athletics are more important than academics).”

The “mixed effect” group at Peter Smith High school totaled four. The “mixed effect” group stated: 1) “parental involvement in academics is present only when athletic participation is jeopardized; 2) parental involvement somewhat affects the academic achievement of senior male and female student-athletes; 3) the effect is predicated on the respect the senior student athlete demonstrates towards the parent and the consistency of the parent; 4) mixed—the task and the motivation determines the parental involvement.” The teachers categorized as the “no effect” group totaled five. Within the “no effect”

group, three teachers stated, “Parental involvement is non-existent at the high school level, particularly by the student-athlete’s senior year.” One teacher opined, “Coaches and peers affect academic achievement more than parents.”

The teachers at Garrett Johnson High School who stated parental involvement “directly affected” the academic achievement of senior male and female student-athletes totaled 22. Within the group of teachers who were categorized in the “directly affect” group, two teachers stated, “Parental involvement is the biggest determinant of academic success for male and female senior student-athletes at the target school.” Furthermore, the “direct effect” group contained two teachers who stated parental involvement “encouraged senior male and female student-athletes to succeed academically.” Presenting a contrasting perspective, two teachers stated, “The senior male and female student-athletes devoid of parental involvement produced a “direct effect” with “negative academic consequences” at the target school.” Five teachers did not respond to open-ended question 3 (Table 5).

The teachers at Stephen Jones High School who concluded parental involvement “directly affects” the academic achievement of male and female senior student-athletes at the target high school totaled 33. Subsequent analysis of the “direct affect” group revealed three teachers concluded, “A positive correlation exists between the level of parental involvement and the academic success of senior male and female student-athletes.” Two teachers asserted, “Parental involvement is the biggest factor in determining the academic achievement of senior male and female student-athletes.” While the majority of respondents stated parental involvement positively affected academic, two teachers concluded uninvolved parents “directly affect” the academic

achievement of senior male and female student-athletes in a negative manner at the target school.

Two teachers stated parental involvement resulted in a “mixed effect” on the academic achievement of male and female student-athletes at the target high school. The “mixed group” respondents revealed the following: 1) “it helps in certain situations; 2) some parents demand their student-athlete achieve academically while others expect preferential grading due to their child's athlete status.” Three teachers did not respond to open-ended question 3 (Table 5).

*Guiding question 6:* How do the school and community perceive the importance of athletic participation and academic achievement? The computed total mean ( $M = 4/80$ ) for Likert scale item 1-4 (Table 6) at the 3 target high schools demonstrated a “strong positive” perception regarding athletic participation and academic achievement. Likert scale questions 1-4 (Table 6) corresponded to and answered guiding question 6. In addition, the researcher developed a bar graph (Figure 1) representing the three high schools’ mean scores for each Likert scale item.

Table 6

*Likert Scale Items*

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Question 1: Athletics are of great importance at the target high school.

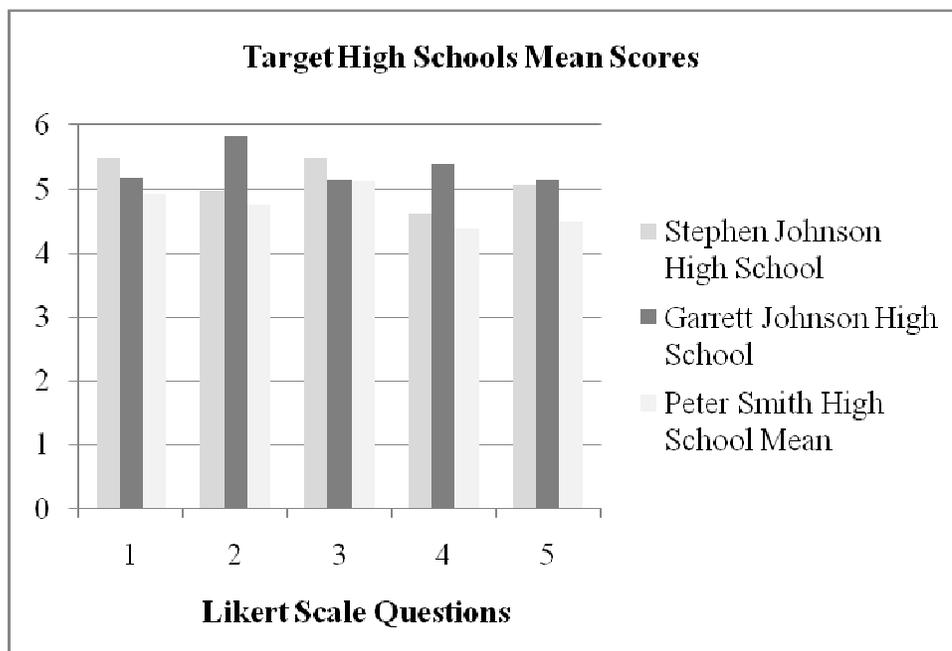
Question 2: Academics are of great importance at the target high school.

Question 3: Athletics are of great importance in the target school community.

Question 4: Academics are of great importance in the target school community.

Question 5: The target school is making adequate yearly progress as it relates to

graduation rates and achievement testing.



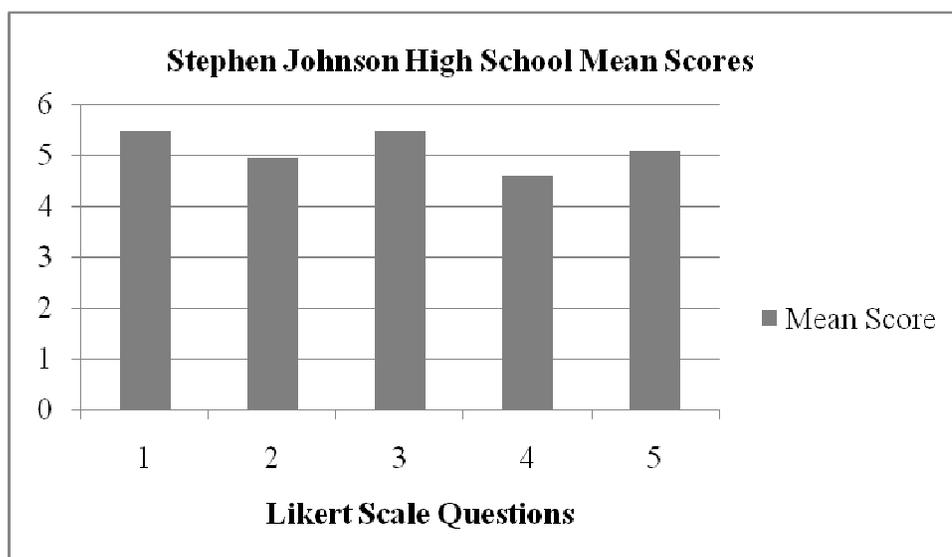
*Figure 1.* Three Target High Schools: Likert Scale Mean Scores

The three target high schools' mean scores were averaged for an overall mean = 4.93 on Likert scale survey question 1 (Table 6). For Likert scale survey item 2 (Table 6), the three target high schools' mean scores were averaged for an overall mean = 4.76. The three target high schools' mean scores were averaged for an overall mean = 5.14 on Likert scale survey item 3 (Table 6). The three target high schools' overall mean scores on Likert scale item 4 (Table 6) were averaged for an overall mean = 4.38 on Likert scale survey item 4 (Table 6). The four overall mean scores for Likert scale items 1 through 4 (Table 6) were averaged, and the researcher computed a total mean = 4.80 for the three target high schools.

The teachers from the three target high schools participated in the Likert scale survey. The teachers answered the five Likert scale items found in Table 6. The teachers'

response options for each Likert scale question were identical, and each teacher was required to choose one response option for each question.

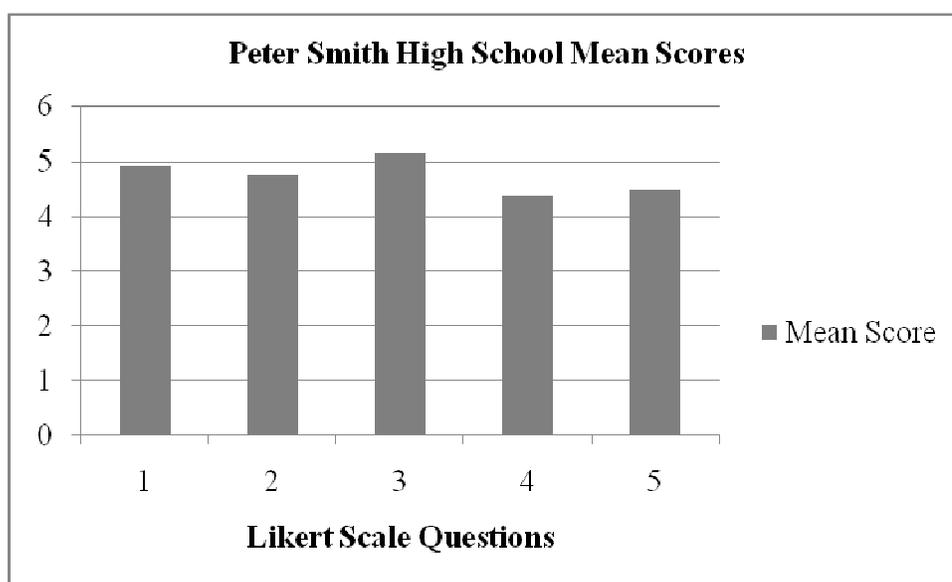
Pursuant to the Likert scale survey questions (Table 6), the researcher distributed 56 surveys to the teaching staff at Stephen Johnson High School (Figure 2). The teachers returned 38 surveys; hence, the rate of return was 67.9% (38/56). Question 1 (Table 6) resulted in four teachers choosing “somewhat agree”, 12 teachers choosing “agree”, and 22 teachers choosing “strongly agree”. Question 2 (Table 6) resulted in four teachers choosing “somewhat disagree”, seven teachers choosing “somewhat agree”, 13 teacher choosing “agree”, and 14 teachers choosing “strongly agree”. Question 3 (Table 6) resulted in three teachers choosing “somewhat agree”, 14 teachers choosing “agree”, 21 teachers choosing “strongly agree”. Question 4 (Table 6) resulted in four teachers choosing “somewhat disagree”, 15 teachers choosing “somewhat agree”, 11 teachers choosing “agree”, and eight teachers choosing “strongly agree”. Question 5 (Table 6) resulted in one teacher choosing “disagree”, one teacher choosing “somewhat disagree”, five teachers choosing “somewhat agree”, 18 teachers choosing “agree”, and 13 teachers choosing “strongly agree”. Overall, the Likert scale survey yielded mean scores: Question 1 ( $M = 5.47$ ), Question 2 ( $M = 4.97$ ), Question 3 ( $M = 5.47$ ), Question 4 ( $M = 4.61$ ), Question 5 ( $M = 5.08$ ). Figure 1 is a bar graph representing the teachers’ mean scores from Stephen Johnson High School on Likert scale questions 1-5 (Table 6).



*Figure 2.* Stephen Johnson High School Likert Scale Mean Scores

The researcher distributed 47 surveys to the teaching staff at Peter Smith High School (Figure 3). The teachers returned 42 surveys which resulted in a return rate of 89.4% (42/47). All Likert scale questions are presented in Table 6. Question 1 (Table 6) resulted in one teacher choosing disagree, one teacher choosing “somewhat disagree”, 12 teachers responding “somewhat agree”, 14 teachers choosing “agree”, 14 teachers choosing “strongly agree”. Question 2 (Table 6) resulted in two teachers choosing “strongly disagree”, one teacher “choosing disagree”, two teachers choosing “somewhat disagree”, nine teachers choosing “somewhat agree”, 14 teachers choosing “agree”, 14 teachers choosing “strongly agree”. Question 3 (Table 6) resulted in one teacher choosing “somewhat disagree”, nine teachers choosing “somewhat agree”, 15 teachers choosing “agree”, 17 teachers choosing “strongly agree”. Question 4 (Table 6) resulted in one teacher choosing “strongly disagree”, one teacher choosing “disagree”, seven teachers choosing “somewhat disagree”, 12 teachers responding “somewhat agree”, 14 teachers responding “agree”, seven teachers responding “strongly agree”. Question 5 (Table 6)

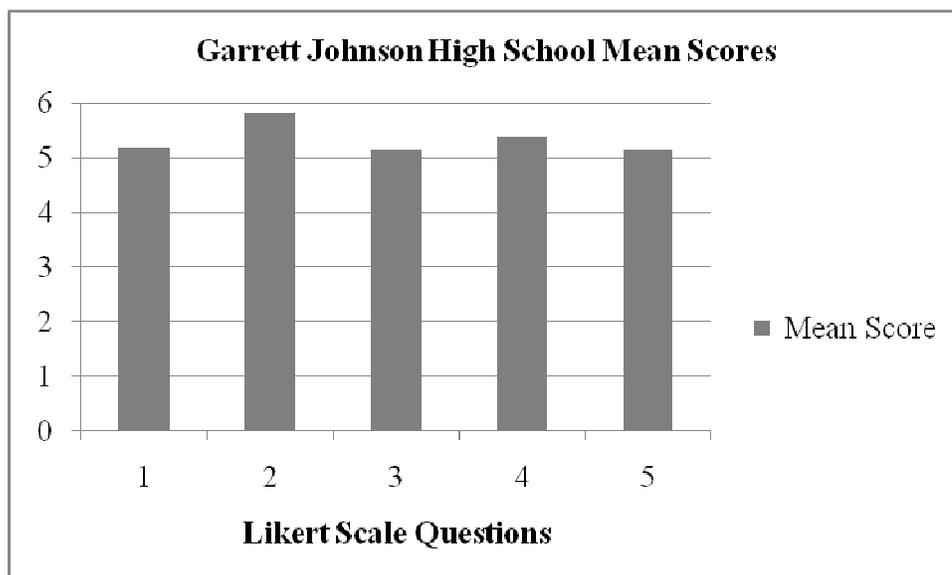
resulted in one teacher choosing “strongly disagree”, two teachers choosing “disagree”, two teachers choosing “somewhat disagree”, 11 teachers choosing “somewhat agree”, 22 choosing “agree”, four choosing “strongly agree”. Overall, statistical analysis for each Likert scale survey revealed the following: Question 1 ( $M = 4.93$ ), Question 2 ( $M = 4.76$ ), Question 3 ( $M = 5.14$ ), Question 4 ( $M = 4.38$ ), Question 5 ( $M = 4.5$ ). Figure 3 is a bar graph representing the teachers’ mean scores from Peter Smith High School on Likert scale questions 1-5.



*Figure 3.* Peter Smith High School Likert Scale Mean Scores

The researcher distributed 40 surveys to the teaching staff at Garrett Johnson High School (Figure 4). Twenty-seven surveys were returned resulting in a return rate of 67.5% (27/40). All Likert scale surveys questions are presented in Table 6. Question 1 (Table 6) resulted in one teacher choosing “disagree”, two teachers choosing “somewhat agree”, 14 teachers choosing “agree”, 10 teachers choosing “strongly agree”. Question 2 (Table 6) resulted in five teachers choosing “agree”, 22 teachers choosing “strongly agree”. Question 3 (Table 6) resulted in one teacher choosing “disagree”, one teacher

choosing “somewhat disagree”, one choosing “somewhat agree”, 14 teachers choosing “agree”, 10 teachers choosing “strongly agree”. Question 4 (Table 6) resulted in one teacher choosing “disagree”, two teachers choosing “somewhat disagree”, seven teachers choosing “agree”, 17 teachers choosing “strongly agree”. Question 5 (Table 6) resulted in four teachers choosing “somewhat agree”, 15 teachers choosing “agree”, eight teachers choosing “strongly agree”. Overall, statistical analysis for each Likert scale survey revealed the following: Question 1: ( $M = 5.19$ ), Question 2: ( $M = 5.81$ ), Question 3: ( $M = 5.15$ ), Question 4: ( $M = 5.37$ ), Question 5: ( $M = 5.15$ ). Figure 3 is a bar graph representing the teachers’ mean scores from Garrett Johnson High School on Likert scale questions 1-5 (Table 6).



*Figure 4.* Garret Johnson High School: Likert Scale Mean Scores

The researcher utilized the three target high schools’ mean scores (Figure 1) for each Likert scale question (Table 6) and computed an overall mean for each Likert scale question (Table 6). The overall mean score for the five Likert scale questions at the three target high schools revealed the following: Question 1 ( $M = 5.19$ ,  $Mo = 6$  (46),  $s = .88$ ),

Question 2 ( $M = 5.10$ ,  $Mo = 6$  (50),  $s = 1.11$ ), Question 3 ( $M = 5.26$ ,  $Mo = 6$  (48),  $s = .82$ ), Question 4 ( $M = 4.71$ ,  $Mo = 5$  (32), 6 (32),  $s = 1.13$ ), Question 5 ( $M = 4.87$ ,  $Mo = 5$  (55),  $s = .96$ ). The overall mean for Questions 1 through 4, the prescribed criteria for answering Guiding Question 6, was ( $M = 5.07$ ,  $Mo = 6$  (176),  $s = 1.01$ ). Figure 4 is a bar graph representing the teachers' mean scores from the three target high schools on Likert scale questions 1-5 (Table 6).

*Guiding Question 7:* How does athletic participation impact AYP status of the target school? The researcher computed a total mean ( $M = 4.87$ ) for Likert scale question 5 (Table 6). The researcher calculated the overall mean score on Likert scale item 5 at the three target high schools. The three mean scores were then averaged, and the researcher arrived at a total mean score for the target high schools on Likert scale item 5. The researcher computed a total mean = 4.87 for Likert scale item 5 for the three target high schools (Table 6). The 4.87 mean found by the researcher demonstrated a “strong positive” result.

## **Chapter 5: Discussion of the Results and Implications for Further Research**

### **Introduction**

The study entitled, *The Effect of Athletic Participation on the Academic Achievement of High School Seniors in Eastern Tennessee*, utilized quantitative and qualitative analyses to determine the academic achievement of senior student-athletes and senior non-athletes. In addition, data was collected from three target high schools' teachers. Statistical and empirical data enabled the researcher to 1) identify "statistically significant differences" or "not statistically significant" difference between the groups; 2) through open-ended responses and Likert scale items, glean teachers' perceptions regarding a broad range of topics pertaining to athletics participation and academic achievement—school system, target high schools, communities, parents. The subsequent summary synthesizes the data and prior research in order to restate findings, conduct further analysis, identify the limitations of the study, pinpoint implications for future research, articulate the applicability of the study in the educational setting, and state conclusions.

### **Restatement of the Problem**

The problem is conflicting viewpoints exist as to whether a student-athlete's academic achievement is affected as a result of their participation in interscholastic athletic competition. Placing a greater importance on athletic achievement could negatively impact Adequate Yearly Progress (AYP) as defined by the No Child Left Behind. AYP, as defined by the U.S. Department of Education Website (2006), is a state's measure of progress towards the goal of one hundred percent of students achieving

state academic standards in at least Reading/Language Arts and Mathematics.

### **Research Questions**

*Guiding Question 1:* What is the effect of athletic participation on academic achievement for student-athletes when compared to non-athletes? The  $p = .086$  for the ACT scores was “not statistically significant” ( $.05 < .086$ ). Hence, confirming null hypothesis: Ho11: there will be no difference between the ACT scores of student-athletes and students who are members of their high school senior class. The  $p = .216$  for the GPA scores was “not statistically significant” ( $.05 < .216$ ). Hence, confirming null hypothesis: Ho12: there will be no difference between the GPA scores of student-athletes and non-athletes who are members of their high school senior class. In response to guiding question 1, the researcher concludes the effect of athletic participation for student-athletes when compared to non-athletes was “not statistically significant”.

*Guiding Question 2:* Is there a statistically significant difference between the senior male student-athletes and the senior female student-athletes? The comparison of ACT scores between the subgroups revealed a  $p = .014$  and was considered to be “statistically significant” ( $.05 > .014$ ); hence, the researcher rejects null hypothesis Ho21: There will be no difference in the ACT scores of both the male and female student-athletes who are members of their senior class.

The comparison of GPA scores between male and female student-athletes found a  $p = .001$  and was considered to be “highly statistically significant” ( $.05 > .001$ ); hence, the researcher null hypothesis Ho22: there will be no difference in the GPA scores of both the male and female student-athletes who are members of their senior class. In response to guiding question 2, the researcher concludes a “statistical significant/highly

statistically significant” difference existed between the senior male and female student athletes as determined through ACT and GPA scores.

*Guiding Question 3:* In what ways do teachers perceive the effect (positive or negative) of athletic participation on student achievement? Open-ended question 1 (Table 6) corresponded to and answered guiding question number 3. Analysis of teachers’ responses from the three target high schools resulted in the following: 70/107 (65.4%) concluded athletic participation “positively affected” student achievement at the three target high schools. Of the teachers who stated athletic participation “positively affected” academic achievement, two themes emerged. First, 11 teachers from the three target high schools stated the “positive effect” was a result of “student-athlete eligibility standards motivating students to pass classes and remain eligible for athletic competition.” Second, nine teachers concluded, “Athletic participation positively affects academic achievement at the target schools due to the discipline, responsibility, and time management skills athletic participation developed.”

The teachers who stated “positive effect” to open-ended question number 2 (Table 2) represented the majority of the responses from the three target high schools’ teachers. The researcher concludes the answer to guiding question 3 is as follows: The effect of athletic participation on academic achievement was “positive”.

*Guiding Question 4:* How does school system involvement as it relates to athletic participation affect the academic achievement of senior male and female student-athletes? Open-ended question 2 (Table 5) corresponded to and answered Guiding Question 4. The “direct effect” of the school system was stated by 77/107 (72.0%) of the three target high schools’ teachers.

Analysis of teachers' responses found eleven teachers stated, "The target school and school system affect the academic achievement of senior male and female student athletes by articulating and enforcing student-athlete eligibility requirements." Presenting a distinct perspective within the "direct effect" group, three teachers stated: 1) "The target school system and school's 'direct effect' is negative as it relates to the academic achievement of senior male and female student athletes; 2) special concessions for star athletes and low academic expectations for student athletes contribute to the problem."

The teachers who stated "direct effect" to open-ended question number 2 (Table 5) represented the majority of responses from the three target high schools' teachers. The researcher concludes the answer to guiding question 4 is as follows: in regards to athletic participation, school system involvement "directly affects" the academic achievement of senior male and female student-athletes.

*Guiding Question 5:* How does parental involvement affect the academic achievement of senior male and female student-athletes? The final open-ended question (Table 5) corresponded to and answered guiding question 5.

Analysis of the numerical and empirical data found 88/107 (82.2%) at the target schools concluded the effect of parental involvement on the academic achievement of senior male and female student-athletes was a "direct effect". The principal responses from the "direct effect" group 27/88 (30.7%) summarily concluded, "Parental involvement in school-wide activities and acute knowledge of college entrance requirements ensured or positively affected the academic achievement of senior male and female student-athletes." The "direct effect" group contained a faction who purported the "direct, negative effect" of uninvolved parents 8/88 (9.1%); four of the eight teachers

stated, “Parents attend all athletic events; however, they rarely attend PTO conferences or monitor academic progress.”

The teachers who stated parental involvement “directly affects” the academic achievement of senior male and female student-athletes represented the majority of responses from the three target high schools’ teachers. In response to guiding question number 5, the researcher concludes parental involvement “directly affects” the academic achievement of senior male and female student-athletes.

*Guiding question 6:* How do the school and community perceive the importance of athletic participation and academic achievement? The overall mean score on Likert scale items 1-4 (Table 6) correspond to and answer guiding question 6. The researcher computed a total mean ( $M = 4/80$ ) for Likert scale questions 1-4 (Table 6) at the three target high schools. The overall mode is pertinent to the findings and strengthens the researcher’s conclusion for guiding question 6. One hundred and seventy six respondents 176/428 (41.1%) responded “strongly agree” to Likert scale questions 1 through 4 (Table 6). The group of teachers who concluded “strongly agree” represented the largest section of respondents in Likert scale questions 1 through 4 (Table 6).

The researcher asserts the overall mean score for Likert scale questions 1 through 4 (Table 6) demonstrated a “strong positive” result. The “strong positive” result of the mean enables the researcher to conclude athletic participation and academic achievement were important in the three target high schools and communities.

*Guiding Question 7:* How does athletic participation impact AYP status of the target school? The researcher computed a total mean ( $M = 4.87$ ) for Likert scale item 5 (Table 6). The researcher asserts the overall mode is applicable to the findings of the

study. Fifty-five respondents 55/107 (51.4%) responded “agree” to Likert scale item 5 (Table 6). The group of teachers who concluded “agree” to Likert scale item 5 (Table 6) represented the largest segment of teachers. The researcher concludes the overall mean score ( $M = 4.87$ ) from the three target high schools’ teachers demonstrated a “strong positive” result, and for guiding question 7 the researcher concludes the three target high were making progress as it relates to AYP.

## **Discussion**

The purpose of the study was to determine the effect of athletic participation on academic achievement on high school seniors in Eastern Tennessee. Guiding questions 1 through 7 are the foundation for discussion. *Guiding Question 1*: What is the effect of athletic participation on academic achievement for senior student-athletes when compared to the senior non-athlete population? The researcher concluded “no statistically significant” difference exists between the academic achievement of senior male student-athletes and non-athletes at the target high schools and determined by ACT and GPA scores. The stated confirmation of the null hypotheses in Guiding Question 1 countered the findings of (Whitley, 1999).

Whitley (1999) compared the GPA, graduation rates, dropout rates, attendance rates, and discipline referral rates for the 1995 school year of participatory students (students participating in high school sports) and non-participatory students (students not participating in sports). Whitley found the athlete subgroups outperformed the non-athlete subgroups as a whole in all of the measurable categories. A noteworthy comparison by Whitley is applicable to the current research. Whitley concluded the GPA scores of the athlete subgroups were higher than the GPA scores of the non-athlete

subgroups.

Din's (2005) study resulted in no quantifiable positive results on academic achievement for student athletes; however, Din's study focused on the pre- and post-season achievement of student-athletes. Din concluded 1) no difference exists between the pre-season and post-season grades of student athletes, 2) the team comparisons revealed similar results, 3) only a small percentage of student-athletes received lower and higher grades at the conclusion of the sports season.

The study's conclusion of "no statistically significant difference" in the ACT and GPA scores of the student athletes and non-athletes was not anticipated by the researcher. The researcher believed the student-athletes would demonstrate higher academic achievement. The researcher's assumption was imbued by high school athletics' inherent ability to cultivate effective character attributes: perseverance, diligence, responsibility. Through coaching and playing experiences, the researcher found the above stated attributes galvanized athletic and academic success. The researcher asserts high school coaches are capable of facilitating academic success for student-athletes. The researcher found the three target high schools' coaching staffs neither mandated study halls nor formally tracked the academic progress of their student athletes. The researcher opines closer scrutiny of student-athlete academic progress by the target schools' coaching staff could augment student-athlete academic success.

*Guiding Question 2:* Is there a statistically significant difference between the academic achievement of senior male student-athletes and the senior female student-athletes? The study found the difference in ACT and GPA scores for the subgroups were both "statistically significant (.014)" and "extremely statistically significant (.001)."

The researcher asserts the stated discrepancies between the senior male and female student-athletes were compelling and poignant. Furthermore, determining potential factors contributing to the difference is relevant to the study. Sitkowski (2008) found the GPAs of male athletes were higher in-season (during the sport's season) compared to out-of-season. Conversely, Sitkowski concluded no difference existed between the GPAs of in-season and out-of-season female athletes.

Studies at the college level found female student-athletes outperformed male student-athletes in the classroom (Dilley-Knoles, Burnett, & Peak, 2010). Dilley-Knowles et al. stated the difference in GPAs for the male student-athletes and female student-athletes was "significant." Dilley-Knoles et al. emphasized male and female student-athletes received the similar academic support at the university. Dilley-Knoles et al. discussed improving the academic achievement of male student-athletes by differentiating the academic support for the genders.

The researcher anticipated a difference in the achievement of senior male and female student-athletes. The significance of the difference, particularly in the GPAs was not expected. Sitkowski (2008) provided insight to the researcher. Sitkowski found a difference in the GPAs of in-season and out-of-season male student-athletes; yet, in similar comparisons for female student-athletes no difference was found. A comparison of in-season and out-of season student-athlete GPAs conducted by Siliker and Quirk (1997) found student-athletes' GPAs were higher in-season.

The researcher underscores the importance of athletic participation for male and female student-athletes. The researcher's assertion is supported by White (2005) as the author stated high school athletic participation develops effective character attributes.

The researcher asserts the effective attributes benefit both subgroups. However, the researcher concludes the potential of athletic participation to benefit the academic achievement of male student-athletes.

*Guiding Question 3:* In what ways do teachers perceive the effect (positive or negative) of athletic participation on student achievement? Analysis of teachers' responses from the three target high schools concluded athletic participation "positively affected" student achievement. The target schools' teachers responses to the open-ended questions revealed two common themes contributing to the "positive effect": first, 11 teachers attributed the "positive effect" of athletic participation to the effectiveness of the target schools' student-athlete eligibility standards; second, nine teachers concluded as a result of athletic participation at the target school, student athletes develop discipline, responsibility, and time management skills.

The first theme, the effectiveness of the target school's student-athlete eligibility standards, was discussed and stressed by Beem (2006). Beem urged school district adherence to uncompromising student-athlete eligibility requirements. Bukowski (2001) stressed the importance of clear and concise eligibility criteria.

Bukowski (2001) examined the role of state high school athletic associations and its member schools. Bukowski's study of 125 arbitrarily selected high schools across 48 states lauded the eligibility requirements of one urban school district and rebuked one school's administration for not instituting minimum eligibility requirements for student athletes.

Incorporating four components for evaluating student-athlete eligibility, Bukowski (2001) found a limited number of schools who maintained adequate eligibility

standards. Bukowski extolled the actions of one high school who scrutinized their student-athletes' academic achievement and immediately removed academically underachieving student-athletes from athletic competition.

The researcher did not expect the target high schools' teachers to endorse the target schools' and school system's adherence to the student-athlete eligibility requirements. The researcher opines the geographical location of the target high schools perpetuates a passion for high school athletics. Media entities, community members, and parents closely scrutinize the performance of athletes and teams, and winning is a pivotal benchmark for success. The author acknowledges a temptation for schools to compromise student-athlete eligibility requirements. However, the majority of the target high schools' teachers did not confirm the existence of compromised academic standards.

In discussing the second theme stated by the teachers, Fejgin (1994) stated participation in high school athletics developed and taught discipline, responsibility, and diligence. Sitkowski (2008) and White (2005) concluded high school athletics developed positive attributes which galvanize the academic achievement of student athletes. Yancey (2007) stated high school athletic participation positively impacts the entire school culture.

The researcher concurs with the findings of Sitkowski (2008) and Fejgin (1994) who stated athletic participation developed discipline, responsibility, and diligence. The researcher concludes the aforesaid attributes are conducive to life-long professional, social, and personal success. In the high school setting, the researcher asserts attributes positively affect academic achievement.

Pursuant to *Guiding Question 4*: How does school system involvement as it

relates to athletic participation affect the academic achievement of senior male and female student-athletes?, analysis of the teachers' statements found the school system involvement "directly affects" the academic achievement of senior male and female student-athletes at the target schools ( $77/107 = 72.0\%$ ). The largest faction (11/77) of the "direct effect" group stated the effect is "positive" and the success is a result of articulating and enforcing student-athlete eligibility criteria.

The effect of school system involvement in the academic achievement of student athletes was discussed and stressed by (Burnett, 2001; Gehring, 2004a; Gehring, 2004b). Burnett found pervasive consternation regarding the potential negative implications of favoring athletics over academics. At the prompting of educators, Burnett found state legislatures pressured school districts to institute academic requirements for student athletes. Gehring surmised the corporate nature of college athletics is infiltrating high school athletics. In the athletic and academic debate, Gehring (2004a) indicted schools for relinquishing their academic responsibility and acquiescing to the allure of athletic acclaim and national television exposure. Gehring (2004b) underscored the importance of schools addressing academic and athletic imbalances due to the seven-million students participating in high school athletics on a yearly basis.

Obel-Omia (2007) and Murphy (2007) discussed the financial implications of school system involvement as schools' actions dictate whether athletic goals supersede academic goals. Obel-Omia (2007) and Murphy (2008) stated a high school's zeal for athletics is negatively impacting the academic achievement of students as funds are utilized to hire unqualified teachers to coach and construct multi-million dollar athletic facilities. Obel-Omai concluded schools build a new athletic complex; however, schools

are unable to build a new math wing.

Criticism abounded for one school system's high school due to alleged unethical behavior. Stock and Solomon (2007) described the ascension of a nationally ranked high school football program and its head coach. Unfortunately, the high school football program and the school system were under intense scrutiny as allegations of grade tampering and mismanagement of finances emerged. Beem (2006) implored school districts to articulate a philosophy regarding athletics and academics.

McMillen (1991) expressed concern regarding the pervasive academic negligence in America's high schools and asserted adults are responsible for maligning the academic goals of student-athletes. Zimmerman (1999) posed a question which parallels McMillen's assertion pertaining to adults; Zimmerman asked, "What message do adults send when they elevate athletics over everything else, including academics?" (p. 1). The majority of the three target schools' teaching staff concluded the school system "positively and directly affects" the academic achievement of senior male and female student athletes.

The target schools' actions are aligned with the findings of Burnett (2001) who discussed the implementation of student-athlete academic eligibility requirements, and Beem (2006) who stated a mission statement defining the primary mission of the school system and the function of athletics is paramount for improving academic achievement. The danger of school systems not defining the role of athletics was underscored by Stock and Solomon (2007).

In the target high schools, the researcher anticipated a larger fraction of teachers stating the target schools and the school system produced more of a "direct and negative"

impact the academic achievement of student athletes. The researcher anticipated teachers would underpin his or her assertions with alleged double standards for student-athletes and the target schools' propensity to acquiesce to the financial rewards and acclaim garnered through successful athletes and teams. Based on the responses of the target schools' teachers, the school system and its schools are directly involved in the academic achievement of all students in a positive manner.

*Guiding Question 5:* How does parental involvement affect the academic achievement of senior male and female student-athletes? Analysis of the teachers' responses found that 88/107 (82.2%) concluded parental involvement "directly affects" the academic achievement of senior male and female student-athletes.

Further analysis of the target high schools' teachers who stated parental involvement "directly affect" academic achievement, revealed 27/88 (30.7%) lauded the level of participation in all school-related events demonstrated by the parents of senior student-athletes. Additional examination of the "significant group" found 8/88 (9.1%) stated the effect was "significant, but negative". Specifically, 4/8 of the "direct, but negative group" stated the following: "Parents attend all athletic events; however, they rarely attend PTO conferences or monitor academic progress."

Beem (2006); Cook (2003); and Burgess (2007) discussed the influence of parents pertaining to high school athletics. Beem stated parents develop a myopic viewpoint about high school athletics and expend considerable amounts of time and money hoping their child garners a professional sports contract. Beem stated low-income families believe athletic, and not academic success, is a swifter path to financial success. Cook stated parents disillusioned by a coach or playing situation, transfer their child to another

high school. To mitigate the increase in student athletes transferring, Cook found school districts are instituting strict policies for student-athlete transfers. Burgess lamented the diminishing respect demonstrated for high school administrators and coaches, and parents' athletic goals for their student athlete are perpetuating the problem.

Cook's study (2003) provided a template demonstrating how parents affect the academic achievement of senior male and female student-athletes. Cook cited the example of a highly recruited basketball star. Cook found the student athlete's parents mandated the following directive to the student athlete: participating in sports and activities is encouraged, but grades must not suffer.

The researcher concurs with the target high schools' teachers as parental involvement "directly affects" the academic achievement of senior male and female student-athletes. The researcher asserts parental involvement is a pivotal component regarding the academic success of the stated group. The researcher concludes the teachers' responses revealed the positive effect of parental involvement and the negative effect of uninvolved parents. The findings of Cook (2003) and Burgess (2007) are insightful to the researcher. The researcher asserts the "direct and negative effect" of parents' athletic agendas and its potential to impact the academic achievement of student athletes.

*Guiding Question 6:* How do the school and community perceive the importance of athletic participation and academic achievement? The overall mean score computed for Likert scale survey items 1 through 4 (Table 6) was 4.80.

Burgess (2007) stated community members and booster clubs are contributing to the importance of high school athletics in communities. The community perception of

athletics was discussed by Rhoden (1994). Rhoden described the palpable passion of community members when the football team takes the field on a Friday night. The author asserted high school sporting events enable community members from diverse socioeconomic backgrounds to unite in a common cause: cheer the team to victory. Rhoden underscored the importance of winning as the author quoted a former high school principal who stated: “But a coach who comes here must know in the back of his mind that a program which has had this kind of success over 75 years places a high premium on winning (B-9).”

Obel-Omai (2007) stated schools participating in athletic overindulgence results in a community with a warped perspective pertaining to academics in high schools. Cook (2003) cited the book, *Friday Night Lights*, to illustrate the preeminence of a high school football team in a community. Cook found close to 20,000 sports-crazed fans spent Friday nights cheering on their team. Cook stated the book concluded environments such as the one stated above place winning and profits above education (Cook).

In regards to community perceptions of athletics and academics, the researcher agreed with Obel-Omai (2007) who cited the danger of a community developing a skewed perspective when new athletic facilities are constructed. The researcher concludes schools’ actions communicate what is important. If a school is embarking on a multi-million dollar athletic facility initiative and classroom conditions are inadequate and archaic, the community is inclined to conclude the school values athletics over academics.

*Guiding Question 7:* How does athletic participation impact AYP status of the target school? Placing a greater importance on athletic achievement could negatively

impact Adequate Yearly Progress (AYP) as defined by the No Child Left Behind Act. Hoff (2006) discussed the ramifications of schools not correcting athletic and academic imbalances.

The stated mean (4.87) from the three target high schools' teachers demonstrated the high schools are making adequate yearly progress. The result was noteworthy to the researcher as AYP is a critical component for determining the success of a school. Gehring (2004a) stated schools perpetuating an overemphasis of athletics are negatively impacting the academic achievement of all students. The researcher concludes the yearly AYP measurement deters schools from abandoning its primary responsibility: to educate students.

### **Limitations of the Study**

The researcher acknowledges the study omitted potentially pertinent information regarding the student-athlete and non-athlete groups. In guiding question 1, the researcher compared the ACT and GPA scores of senior student-athletes and non-athletes who graduated from the 3 target high schools in 2009. Guiding question 2 compared the ACT and GPA scores of the senior male and female student-athletes who graduated in 2009 from the target high schools. Inclusion into the student-athlete group mandated athletic participation during the 2008-09 school year in at least one sport governed by the Tennessee Secondary School Athletic Association (TSSAA). The non-athlete group contained senior students who graduated in 2009 from the target high school but did not participate in athletics for the 2008-09 school year.

For example, the GPA average of the 2009 senior student-athletes and non-athletes is a four-year measurement of classroom achievement. The study was not able to

ascertain whether the student athletes participated in multiple sports during their senior year. Furthermore, the study did not determine if the student athletes participated in other sports during their freshman, sophomore, and junior years. As it relates to the non-athlete group, the study did not account for athletic participation during their preceding high school years. The inability to establish the athletic participation of the student athletes and students was a manifestation of changes in the administrative, coaching, and teaching staffs at the target high schools. The requisite athletic participation data was either missing or incomplete, and in some instances both the current coaches and the athletic directors were new to their respective school and team rosters were unavailable.

The researcher asserts student-athlete participation data underpins the validity of the findings. The effect on academic achievement for student athletes participating in multiple sports is nebulous. Sitkowski (2008) stated male student-athlete academic performance in-season was higher compared to out-of-season; yet, female student-athletes demonstrated no difference in their in-season and out-of-season academic achievement. Therefore, does high school athletic participation benefit male student-athletes more than female student-athletes?

Additional limitations were found in regards to individual student athlete and non-athlete transcript analysis. The researcher asserts the degree of difficulty in coursework could impact the achievement findings. For example, a student athlete enrolled in two honors level courses during the athletic season could affect his or her classroom achievement. In defining the parameters for inclusion into the study, the researcher required an ACT score from both the senior student-athletes and non-athletes at the target high schools. The research opines the ACT requirement enhanced the probability for

coursework consistency between the student athletes and students.

Lastly, the researcher notes the prevalence of “no responses” by the teachers at the target high schools. Potential rationalizations for a higher than expected amount of “no responses” is underscored by some teacher’s lack of requisite knowledge of the school, school system, and the senior class who graduated in 2009 from the target high schools. The researcher states a faction of the teachers were in year one at his or her school.

### **Implications for Future Research**

The criteria the researcher utilized for inclusion into the study resulted in the exclusion of 125 of the three target school high schools’ 2009 graduates. The inclusion of all students would increase the sample size and validity of the study. In the fall of 2009, the state of Tennessee instituted the “Diploma America Project” which requires students who enter high school in the fall of 2009 to enroll in courses meeting the minimum requirements for admittance to a four-year college or university ([www.tennessee.gov](http://www.tennessee.gov)). Within the United States, several states have instituted similar diploma requirements. The website stated the “Diploma America Project” requires the incoming 2009 freshmen to take the ACT during their junior year in high school.

In light of the “Tennessee Diploma America Project,” the researcher asserts a replication of the study is appropriate. The feasibility of conducting a similar study is supported by the required administration of the ACT during a student’s junior year in high school and the consistency of graduation requirements as it relates to coursework. Under the stated conditions, the researcher concludes the conduciveness for a larger sample in both groups.

The current study found a “statistically significant” difference in the academic achievement of male and female student-athletes. Dilley-Knoles et al. (2010) found a “statistically significant” (.014) and “extremely statistically significant difference” (.001) in the academic achievement of male and female student-athletes at the college level. Dilley-Knoles et al. stated that potentially diversifying academic support services and identifying acclimation issues for male student-athletes are warranted.

The researcher recommends further investigation so as to identify potential factors contributing to the large discrepancy. Sitkowski (2008) concluded the academic achievement of male student-athletes was higher during in-season competition compared to out-of-season; however, the academic achievement of female student-athletes demonstrated no difference during in-season and out-of season competition. In the present study, the researcher concludes further comparison of the male GPA scores for in-season and out-of-season student-athletes is appropriate. Future research should focus on distinct intervention strategies to improve the academic achievement of out-of-season male student-athletes

Further implications for research are found in the teachers’ responses to the guiding questions which revealed the pivotal role of the school and school system. Directly, the researcher ascertained the effect of school system involvement in the academic achievement of male and female student-athletes (Guiding Question 4). The majority of respondents to Guiding Question 3: In what ways do teachers perceive the effect (positive or negative) of athletic participation on student achievement?” credited the “positive effect” of athletic participation on academic achievement to the target school and school system’s academic eligibility requirements for male and female

student-athletes.

The effect of the school system was further stated in Guiding Question 5: How does parental involvement affect the academic achievement of senior male and female student-athletes? Cook (2003) concluded school systems are implementing policies for student-athletes desiring to transfer schools. School system involvement was referenced by Obel-Omai (2007) in relation to Guiding Question 6: How do the school and community perceive the importance of athletic participation and academic achievement? Obel-Omai denounced school system expenditures on athletic facilities as the community develops a skewed perspective of high school athletics.

The effect of school systems, and its noted frequency in both the teachers' responses and the research (Cook, 2003; Obel-Omai, 2007), provides the impetus for future studies focusing on school systems. The research asserts a qualitative study comparing and contrasting the characteristics of school systems who positively and negatively affect the academic achievement of student athletes is appropriate.

A final implication is found in the homogeneous demographics and socioeconomics of the 3 target high schools' student athletes and students. The researcher concludes conducting a similar study with demographically and socioeconomically diverse student-athletes and non-athletes is appropriate. For example, comparing urban and rural schools.

### **Applicability of the Study in the Educational Setting**

The researcher concludes the findings in the study are applicable in the educational setting. The "statistically significant" (.014) and "extremely significant" (.001) differences in the ACT and GPA scores of the senior male and female student-

athletes at the target high schools are compelling. AYP benchmarks take into account the test scores of all subgroups (special education population, socioeconomic status, and ethnicity). School systems and schools scrutinize the achievement of all subgroups/groups so as to identify groups mandating intervention. While not directly incorporated into AYP, schools cannot be impervious to the achievement of student athletes. The study contained 404 2009 graduates from the three target high schools; of the 404 students, there were 175 ( $175/405 = 43.3\%$ ) student athletes. In examining the gender composition of the student-athlete group, 104 ( $104/175 = 59.4\%$ ) were males, and the male student-athlete group comprised 25.7% ( $104/404$ ) of the study's included students.

The researcher asserts the size of the student athlete group, and the percentage of male is noteworthy. Comparisons of the ACT and GPA scores of the senior male and female student-athlete subgroups found the mean ACT and GPA scores (ACT = 23.21, GPA = 3.45) of the female group were higher than the scores (ACT = 21.46, GPA = 3.16) of the male student-athletes. Discrepancies in the achievement of male and female student-athletes were also found in studies done at the college level.

## **Conclusions**

During the 2008 school year, 7.4 million students participated in high school athletics (Associated Press, 2008). Divergent viewpoints were found as to whether high school athletic participation positively or negatively affects academic achievement. Yancey (2007) discussed and stressed the comprehensive benefits student athletes procure due to athletic participation. Gehring (2004b) denounced the burgeoning media and television exposure of high school athletic. Gehring opined the fiscally driven nature

of professional sports is permeating high school athletics. To counter athletic overindulgence, Beem (2006) implored schools to articulate an academically driven mission statement.

In comparing the ACT and GPA data of the student-athlete and non-athlete groups, the researcher found the effect of athletic participation on academic achievement for senior student-athletes was “not significant”. However, correlations were found between prior studies done at the high school level and the data from the three target high schools’ teachers. The target high schools’ teachers concluded athletic participation resulted in a “positive” effect on student achievement. Open-ended responses (Table 5) from the teachers found the positive effect was a result of clearly defined student-athlete eligibility criteria and the development of positive character attributes. The importance of adhering to student-athlete eligibility requirements was supported by Bukowski (2001). The eligibility requirements were stated further by the target high schools’ teachers in open-ended question 2 (Table 5) as school systems directly affect the academic achievement of senior male and female student-athletes.

As it relates to student athletes developing positive character attributes, Fejgin (1994) and White (2005) extolled the positive attributes athletic participation developed—responsibility, diligence, perseverance. Butterfield and Brown (1991) asserted athletic participation cultivated teamwork, discipline, responsibility—invaluable resources for future educational and professional success. The researcher concludes the target high schools’ teachers’ stated “positive effect” is attributable to the schools’ and school system’s eligibility standards and the ability of student athletes to develop positive character attributes as a result of athletic participation.

The researcher found additional correlations between the literature and the teachers' responses in the areas of school system and parental involvement. In addition, the researcher found interconnectedness between the following: 1) school and parental involvement and 2) parental involvement and student athlete achievement. Beem (2006) stated academics are a school's top priority, and it is incumbent upon schools to adhere to eligibility standards. The majority of target high schools' teachers concluded schools and their respective school systems directly affect the academic achievement of senior male and female student-athletes. The effect was positive as the three target schools demonstrated that academics are the top priority by consistently enforcing the student-athlete eligibility standards.

Clearly, the school system/schools effect on the academic achievement of senior student-athletes was established by the target schools' teachers. However, the researcher concludes the school systems affect parental involvement as schools are capable of mitigating parental zealousness towards athletics. Cook (2003) stated one school district enacted rules regarding student-athlete transfers. Cook stated the goal of the school district's measure was to discourage parents from transferring in the middle of a school year. Virginia PTA (2009) underscored the effect of school systems as it relates to mitigating parental fanaticism towards athletics.

Parental involvement was discussed and stressed by Cook (2003). Cook concluded parents are driven by the allure of athletic notoriety and the potential for their student athlete to earn a college scholarship. Cook stated the potential negative effect on academic achievement due to parental athletic agendas. The target high schools' teachers emphasized the impact of parents. The largest sample of teachers asserted parents

involved in the academic achievement of their student-athletes positively impact the academic achievement of senior student-athletes. Conversely, a small portion of teachers stated parents uninvolved in the academic achievement of senior student-athletes negatively impact academic achievement.

The teachers' responses revealed parental involvement in the academic affairs of senior student-athletes (attend parent-teacher conferences, knowledge of college admission standards) directly affect student athletes in a positive manner. Conversely, parental involvement which is limited to athletic endeavors, or nonexistent in academics or athletics, negatively affects the academic achievement of senior student-athletes at the target high schools. Furthermore, the researcher concludes parental involvement dictates the senior student-athletes commitment to academics. Cook (2003) discussed the impact of parents as it relates to academics.

The researcher concludes the target school system, schools, and parents cohesively affect the academic achievement of senior male and female student-athletes. The conclusion is underpinned by the teachers responses to the second open-ended question (Table 5) 77/107 (72.0%) and the third open-ended question (Table 5) 88/107 (82.2%). The researcher asserts the potential for the school system/target schools and the parents to positively or negatively affect academic achievement.

The researcher asserts the impact of the school system/schools extends into the community. Obel-Omai (2007) stated communities demonstrate incongruent priorities when school systems eliminate teaching positions but athletic expenditures are unaffected. Fish (2000) lamented the budgetary constraints of one state's budget as teaching jobs are eliminated; however, the author stated high school football remains

unscathed by cutbacks. Analysis of the target schools' teachers' responses did not reveal any noteworthy correlations to the above cited research.

The researcher asserts the paramount importance of all vested entities—target school system, target schools, parents, and student athletes—working cooperatively. The researcher asserts there is an interconnected in all of the aspects surrounding high school athletics. The researcher concludes the benefits for senior student-athletes will produce enduring personal and professional success.

## References

- American College Testing Service (2009). *ACT*. Retrieved from [www.act.org](http://www.act.org).
- American College Testing Service (2007). *ACT Technical Manual*. Retrieved from [www.act.org](http://www.act.org).
- Ary, D., Jacobs, L. C., Razavieh, A., & Sorensen, C. (2006). *Introduction to research in education* (7th ed.). Belmont, CA: Thomson Wadsworth.
- Associated Press (2008). High school sports. *Education Week*, 28(3), 5.
- Adler, P. & Adler, P. A. (1985). From idealism to pragmatic detachment: The academic performance of college athletes. *Sociology of Education*, 58(4), 241-250.
- Barak, T. (2004). Trophy schools. *Education Week*, 24(6), 9.
- Bean, J. (2009, August 5). *Do high school football coaches make too much money?*. Retrieved from [http://blog.al.com/press-register-sports/2009/08/commentary\\_high\\_football\\_schoo.html](http://blog.al.com/press-register-sports/2009/08/commentary_high_football_schoo.html)
- Beem, K. (2006). Righting the balance in the athletics-academics equation. *School Administrator*, 63(6) 10-20.
- Bishop, J. (2008). *Examining our 'sports obsessed' culture*. Eastern Mennonite University. Retrieved from <http://www.emu.edu/news/index.php/1622/>
- Bleyaert, B. (2010). ACT and college success. *The Principals' Partnership*. Retrieved March 1, 2010 from <http://www.principalspartnership.com/ACTandCollegeSuccess.pdf>
- Bracken, N. (2007). *Estimated probability of competing in athletics beyond the high school interscholastic level*. Retrieved from <http://www.ncaa.org/research/>

prob\_of\_competing/probability\_of\_competing2.html

Brooks, D. T. (2007). *The effects of athletic participation on the student's self-concept*.

(Unpublished doctoral dissertation). The Graduate College University of

Wisconsin: Stout, WI.

Buchanan, B. (2006). Coaching for life. *American School Board Journal*, 193(8), 20-23.

Bukowski, B. J. (2001). *A comparison of academic athletic eligibility in interscholastic*

*sports in American high schools*. Retrieved from <http://www.thesportjournal.org/>

2001Journal/Vol4-No2/athletic-eligibility.asp

Burgess, M. (2007, July 29). The vice: High school coaches feeling added pressure from

pushy parents, *Knoxville Sentinel News*. Retrieved from <http://www.knoxnews.com/news/2007/jul/29/the-vice/>

Burnett, M. A. (2001). One strike and you're out. *The High School Journal*, 84(2), 1-6.

Butterfield, S. A. & Brown Jr., B. R. (1991). Student-athletes perceptions of high school

sports participation. *Physical Educator*, 48(3), 123-128.

Callen, S.J. & Thomas, J.M. (2009). *Pay and performance: An examination of Texas high*

*school football coaches*. Retrieved from <http://www.thesportjournal.org/article>

[/pay-and-performance-examination-texas-high-school-football-coaches](http://www.thesportjournal.org/article)

Carlson, D., L., S., Planty, M., & Thompson, J. (2005). *What is the status of high school*

*athletes 8 years after their senior year?* (Report No. NCES 2005-303). Jessup,

MD.: National Center for Educational Statistics. Retrieved from ERIC document

Reproduction Service: ED 486466

Carter, A. (2009, July 13). *SEC's lucrative TV contract has rival leagues worried*.

Retrieved from [www.sun-sentinel.com](http://www.sun-sentinel.com)

- Cavanaugh, S. (2009). Sour economy places athletics in jeopardy. *Education Week*, 28(27), 6-7.
- Clinchy, E. (1998). The educationally challenged American school district. *Phi Delta Kappa*, 80(4), 272-77.
- Cook, G. (2003). Win at all costs. *American School Board Journal*, 190(8), 12-16.
- Cotton, H. (1996). Athletics vs. academics. *Teacher Magazine*, 7, 42-43.
- Dilley-Knoles, J, Burnett, J.S., & Peak, K.W. (2010). Making the grade: success in today's athlete. *The Sport Journal*, 13(2).
- Din, F. S. (2005). *Sports activities versus academic achievement for rural high school students*. Retrieved from <http://www.nationalforum.com/Electronic%20Journal%20Volumes/Din,%20Feng%20S.%20%20Sport%20Activities%20Versus%20Academic%20Achievement%20For%20Rural%20High%20School%20Students.pdf>
- Dobosz, R.B., & Beaty, L.A. (1999). The relationship between athletic participation and high school student leadership ability. *Adolescence*, 34(133), 215-20.
- Dowling, W. (2008). *Confessions of a spoilsport: My life and hard times fighting sports corruption at an old eastern university*. University Park: Pennsylvania State University Press.
- Elliot, D. L., Moe, E. L., Goldberg, L., Defrancesco, C. A., Durham, M. B., & Hix-Small, H. (2006). Definition and outcome of a curriculum to prevent disordered eating and body-shaping drug use. *Journal of School Health*, 76(2), 67-73.
- Emma, T. (2008). A college perspective on academics and the student athlete. *Coach Athletic Director*, 77(8), 29-37.

- Fainura-Wada, M. & Stephens, M. (2003, July 13). Can parents be too involved? Pressure driving out high school coaches in wealthy Lamorinda. *The San Francisco Chronicle, B-1*.
- Fejgin, N. (1994). Participation in high school competitive sports: A subversion of school mission or contribution to academic goals. *Sociology of Sport Journal, 11*(3), 210-230.
- Fish, M. (2000). High schools: Georgia prep football is big business, big bucks. *The IRE Journal*. Retrieved from [http://findarticles.com/p/articles/mi\\_qa3720/is\\_200003/ai\\_n8898444/?tag=content;col1](http://findarticles.com/p/articles/mi_qa3720/is_200003/ai_n8898444/?tag=content;col1)
- Franklin, B. (2006). College athletics as a model for promoting academic integrity in higher education. *Mid-Western Educational Researcher, 19*(1), 15-23.
- Frantz, B. (2008, February 11). Frantz: High school athletes no longer immune to big-time pressure. *The Examiner*. Retrieved from <http://www.examiner.com/a-1213383~Frantz:%20High%20school%20athletes%20no%20longer%20immune%20to%20big-time%20pressure.html>
- Gatti, C. (2009). Keeping track...and other 'non-revenue' high school sports. *Waynesboro News Virginian*. Retrieved from [http://www2.newsvirginian.com/wnv/news/local/article/keeping\\_track\\_...\\_and\\_other\\_non-revenue\\_high\\_school\\_sports/36191/](http://www2.newsvirginian.com/wnv/news/local/article/keeping_track_..._and_other_non-revenue_high_school_sports/36191/)
- Gearhart, D. & Long, J. (2009). Intercollegiate commits \$1 million for academics. *University of Arkansas Chancellor*. Retrieved January 30, 2010 from <http://chancellor.uark.edu/14966.php>
- Gehring, J. (2004a). H.S. athletics out of bounds report warns. *Education Week, 24*(9), 1-

19.

Gehring, J. (2004b). High school play hits new high. *Education Week*, 24(2), 14.

Gehring, J. (2001). Panel criticizes college, high school sports. *Education Week*, 20(42)

16.

Glatthorn, A.A., & Loyner, R.L. (2005). *Writing the winning thesis dissertation*.

Thousand Oaks, CA. Corwin Press.

Gould, D., Collins, K., Lauer, L., & Chung, Y. (2007). Coaching life skills through

football: A study of award winning high school coaches. *Journal of Applied Sport Psychology*, 19(1), 16-37.

Halley, J. (2007, October 30). Hoover (Alabama) High coach agrees to step down. *USA*

*Today*, p. C5. Retrieved from [http://www.usatoday.com/sports/preps/football/2007-10-30-hoover\\_N.htm](http://www.usatoday.com/sports/preps/football/2007-10-30-hoover_N.htm)

Hoch, D. (1998). Educating your school administrator. *Coach & Athletic Director*, 68(4),

4-5.

Hoff, D. (2006). Role of H.S. sports subject of study. *Education Week*, 25(19) 9.

Hudson, A. (2008). How will the economy affect sports. *The Diamond Prospects*.

Retrieved September 5, 2009 from [www.thediamondprospects.com](http://www.thediamondprospects.com)

Hunt, O. (2007). A mixed method design. *Article Valley*. Retrieved February 14, 2010

from [http://www.articlealley.com/article\\_185975\\_22.html](http://www.articlealley.com/article_185975_22.html)

Jacob, M. (2006, January 8). High school football coaches cashing in. *The Dallas*

*Morning News*. Retrieved from <http://www.dallasnews.com/sharedcontent/>

Jones, D.L. (2007). A formula for success. *Coach and Athletic Director*, 77(3), 58-59.

Jordan, J. (2009, March 21). High school sports budgets. *Gainesville Times*. Retrieved

from [www.gainesvilletimes.com](http://www.gainesvilletimes.com)

Josephson, M. (2007). Are high school sports corrupting our values? Retrieved from

[www.josephsoninstitute.com](http://www.josephsoninstitute.com)

Kays, T.M. (2005). What are my child's chances of playing in the pros? *Athletic Mind*

*Institute*, Retrieved from <http://www.expertclick.com/NewsReleaseWire/default.cfm?Action=ReleaseDetail&ID=10259>

Knox, D. (2007). High school and middle school athletics: Now is the time. *Coach and*

*Athletic Director*, 76(6). Retrieved from [http://findarticles.com/p/articles/m\\_m](http://findarticles.com/p/articles/m_m0FIH/is_6_76/ai_n17216133/?tag=content;coll)

[0FIH/is\\_6\\_76/ai\\_n17216133/?tag=content;coll](http://findarticles.com/p/articles/m_m0FIH/is_6_76/ai_n17216133/?tag=content;coll)

Lawrence, M. (2008). *NCAA measures student-athlete graduation rates*. Retrieved from

[www.ncaa.org](http://www.ncaa.org)

Lemire, J. (2009). The biz: prep programs. *Sports Illustrated*, 110(3). Retrieved from

[www.si.com](http://www.si.com)

Livingstone, S. (2005, August 8). Fight against steroids gaining muscle in high school

athletics. *USA Today*. Retrieved from [www.usatoday.com](http://www.usatoday.com)

Lomonico, D. (2008, July 24). Athletics and academics: Chase the money, honey. *Press*

*Box*, 3(30). Retrieved from <http://www.pressboxonline.com/print.cfm?ID=3914>

London, H. L. (2002). Why big time college basketball players don't graduate. *St Croix*

*Review*. Retrieved from [http://www.herblondon.org/1383/why-big-time-college-](http://www.herblondon.org/1383/why-big-time-college-basketball-players-dont-graduate)

[basketball-players-dont-graduate](http://www.herblondon.org/1383/why-big-time-college-basketball-players-dont-graduate)

Lopez, M. H. & Moore, K. (2006, February). Participation in sports and civic

engagement. *Circle Fact Sheet, The Center for Information & Research on Civic*

*& Engagement*. Retrieved from <http://www.civicyouth.org/PopUps/FactSheets/>

FS\_06\_Sport\_and\_Civic\_Engagement.pdf

Maher, J (2007, October 29). Schools are spending big on academic centers, tutors for athletes. *American-Statesman*. Retrieved July 1, 2009 from <http://www.statesman.com/news/content/sports/stories/archive/utacademics/academicshelp.html>

Maloney, M.T. & McCormick, R.E. (1993). An examination of the role that intercollegiate athletic participation plays in academic achievement. *Journal of Human Resources*, 28(3), 555-570.

Manzo, K.K. (1996). Pay gap between coaches, teachers detailed. *Education Week*, 16(10), 12-14.

McMillen, T. (1991). Reversing the imbalance of athletics and academics. *The Elementary School Journal*, 91(5), 489-90.

Murphy, C.S. (2008). Pay for coaches seen as out of line. *Arkansas Democratic Gazette*. Retrieved from <http://www.nwanews.com/story.php?paper=adg&section=National&storyid=218420>

National Collegiate Athletic Association Eligibility Center (2009). The 2009-10 guide for the college bound student-athlete. *NCAA Eligibility Center*. Retrieved January 30, 2010 from [http://www.ncaapublications.com/Uploads/PDF/2009-10%20CBSA\\_Web3b989d59-d76d-4bb2-b81b-14e9dbef0b24.pdf](http://www.ncaapublications.com/Uploads/PDF/2009-10%20CBSA_Web3b989d59-d76d-4bb2-b81b-14e9dbef0b24.pdf)

Obel-Omia, M.C. (2007). The edifice complex. *Independent School*, 66(4), 14-16.

Olson, C.A. (2006). Teacher perception of the academic achievement of athletes at Menomonie High School. *The Graduate School, University of Wisconsin-Stout*.

Peckham, S. (2008). Education news in brief. *Education Digest*, 73(7), 76-77.

- Peltier, G.L., & Laden, R. (1999). Do high school athletes succeed in college: *A Review of Research. High School Journal*, 82(4), 234-238.
- Pfahler, L. (2008, November 26). Are area high school athletic departments running out of gas? *TC Palm*. Retrieved from [www.tcpalm.com](http://www.tcpalm.com)
- Pointer, S.C., King, W.H., Sharman, J.R., & Kelly S.A. (2007). *Lightfoot Franklin & White LLC: Confidential report of investigation submitted to City of Hoover Board of Education*. Retrieved from <http://www2.hoover.k12.al.us/Documents/FinalReport.pdf>
- Proffitt, T. (2009, August 12). Illinois increases steroid testing for high school athletes. *Heartland News*. Retrieved August 15, 2009 from [www.kfvs12.com](http://www.kfvs12.com)
- Reid, K.S. (2005). H.S. athletes seen as having leg up. *Education Week*, 25(5), 10.
- Rhoden, W.C. (1994, September 23). Football: Passing a tradition from generation to generation; For the townspeople of Valdosta, Ga., the high school game is a way of life. *New York Times*, B-9.
- Ruibal, S. (2004, February 25). *Fieldhouse: A cathedral to high school hoops*. Retrieved from [http://www.usatoday.com/sports/preps/basketball/2004-02-25-ten-great-hoops-newcastle\\_x.htm](http://www.usatoday.com/sports/preps/basketball/2004-02-25-ten-great-hoops-newcastle_x.htm)
- Ruibal, S. & Glier, (2004, February, 25). The other great places to watch high school hoops. *USA Today*, 03c. Retrieved from [http://www.usatoday.com/sports/preps/basketball/2004-02-25-ten-great-hoops-other\\_x.htm](http://www.usatoday.com/sports/preps/basketball/2004-02-25-ten-great-hoops-other_x.htm)
- Sailer, S. (2007). Smells like team spirit: Even in a superstar age, high school football is still about community. *The American Conservative*. Retrieved August 24, 2009 from <http://www.amconmag.com/article/2007/dec/03/00025/>

- Scantling, E. & Lackey, D. (2005). Coaches under pressure: Four decades of studies; the odds against coaching longevity are increasing, but the reason remains the same. *The Journal of Physical Education, Recreation and Dance*, 76(1), 25-29.
- Sherman, M. (2007). High school sports recruiting limited. *USA Today*, Retrieved January 20, 2009 from [http://www.usatoday.com/news/washington/2007-06-21-2640043768\\_x.htm](http://www.usatoday.com/news/washington/2007-06-21-2640043768_x.htm)
- Silliker, A. S., & Quirk, J.T. (1997). The effect of extracurricular activity participation on the academic performance of male and female high school students. *School Counselor*, 44 (4), 288-293.
- Sitkowski, L. S. (2008). *The effects of participation in athletics on academic performance*. (Unpublished doctoral dissertation). Liberty University: Lynchburg, VA.
- Staples, A. (2008). High school sports struggle to fund athletic programs. *Sports Illustrated*. Retrieved from [http://sportsillustrated.cnn.com/2008/writers/andy\\_staples/10/07/hs.economy/index.html](http://sportsillustrated.cnn.com/2008/writers/andy_staples/10/07/hs.economy/index.html)
- Stock, E. & Solomon, J. (2007, October 31). Propst to resign but will coach playoffs. *The Birmingham News*. Retrieved from [http://blog.al.com/spotnews/2007/10/rush\\_propst\\_resigns\\_but\\_will\\_c.html](http://blog.al.com/spotnews/2007/10/rush_propst_resigns_but_will_c.html)
- Tennessee Department of Education website. (n.d.). *Tennessee diploma project: raduation requirements*. Retrieved December 1, 2009 from <http://www.state.tn.us/education/gradreq.shtml>
- Tennessee Secondary School Athletic Association, (2010). *2009-10 TSSAA athletic handbook*. Retrieved from [www.tssaa.org](http://www.tssaa.org)

- Thomas Jr., R. (1989). Athletics: Playing sports doesn't lift grades, study finds. *New York Times*. Retrieved from <http://www.nytimes.com/1989/08/16/sports/athletics-playing-sports-dosen-t-lift-grades-study-finds.html>
- Tomsho, R. (2009, February 23). Coaches, CFOs among big earners at colleges. *The Wall Street Journal*. Retrieved from <http://www.ibhe.state.il.us/newsdigest/NewsWeekly/022709.pdf>
- Trubow, A. (2006, November 29). In dollars, coaches beat teachers. *The Statesman*. Retrieved from <http://www.statesman.com/sports/content/sports/stories/highschool/08/27salary.html>
- U.S. Department of Education (2006). What is adequate yearly progress (AYP)? Retrieved from <http://www.ed.gov/nclb/accountability/ayp/edpicks.jhtml>
- Virginia PTA, (2009). Early sports pressure. *Virginia PTA, The Voice*. Retrieved from [http://www.vapta.org/index.php?option=com\\_docman&t](http://www.vapta.org/index.php?option=com_docman&t)
- Voinis, N. (2009). Student-athletes achieve academic success. *Intercollegiate Athletics*. Retrieved from <http://www.utexas.edu/news/2009/06/18/student-athletes/>
- Walonick, D.S. (1993). *Organizational theory and behavior*. Retrieved January 20, 2009 from <http://www.survey-software-solutions.com/walonick/organizational-theory.htm>
- Webster's Online Dictionary (1966). Retrieved from <http://www.merriam-webster.com/dictionary/grade+point+average>
- Weiberg, S., Upton, J., Perez, A.J., & Berkowitz, S. (2009, November 10). College football coaches see salaries rise in down economy. *USA Today*. Retrieved from <http://www.usatoday.com/sports/college/football/2009-11-09-coaches->

salary-analysis\_N.htm

- White, N.B. (2005). *The effects of athletic participation on academic achievement*. (Master's Thesis). Graduate School of Marietta College: Marietta, OH. Available from EbscoHost.
- Whitley, R. L. (1999). *A comparison of the educational performances of athletes and non-athletes in 133 North Carolina high schools*. East Carolina University. (Master's thesis). Retrieved from <http://www.thefreelibrary.com/Talented+male+athletes:+exemplary+character+or+questionnaire...-a0206532587>
- Williams, J. (2008). What's plaguing high school sports? We ask some experts. *Orlando Sentinel*. Retrieved from <http://origin-www.orlandosentinel.com/sports/orl-high-school-roundtable-100608,0,7861080.story>
- Woo, S. (2006, November 3). Football isn't everything, educators tell Nike. *Chronicle of Higher Education*, 53(11). Retrieved from <http://chronicle.com/article/Football-Isn-t-e-Everything/19974>.
- Word IQ website, (2010). Retrieved from [www.wordiq.com](http://www.wordiq.com)
- Yancey, A. (2007). How to get your peers to support the athletic program. *Coach and Athletic Director*, 76(8), 61-62.
- Zimmerman, J. (1999). Columbine and the cult of high school sports. *Education Week*, 18(38) 44, 30.

**Appendix A**  
**School System Approval**

## Appendix A: School System Approval



# Sevier County School System

*Dr. Jack A. Parton, Director of Schools*

226 Cedar Street  
Sevierville, Tennessee 37862

Phone (865) 453-4671  
Fax (865) 774-4562

July 29, 2009

Dr. Judy P. Shoemaker  
Assistant Professor of Education and Instructional Mentor  
School of Education  
Liberty University  
1971 University Boulevard  
Lynchburg, Virginia 24502-2269

Dear Dr. Shoemaker:

This letter is being forwarded to conditionally approve Mr. David Gorman's request to conduct research related to his dissertation in the Sevier County School System during the 2009-2010 school year. This approval is conditional in that guidance counselors at each of the four high schools must voluntarily agree to participate. In addition, the Sevier County School System implements a common practice of requiring that all names of individual students be removed from data before review by those conducting such research. Otherwise, the only data that can be analyzed in such a research project is data already posted in the public arena. Teacher surveys may be conducted on a voluntary basis. It is also my understanding that the high schools, the school system, and individual teachers surveyed will not be identified in the final report. If you have additional questions about this approval, please feel free to contact me.

Sincerely,

Debra Ann Cline, Ed.D.  
Director of Curriculum and Instruction

DAC:fbj

**Appendix B**

**Survey**



**5. The target school is making adequate yearly progress as it relates to graduation rates and achievement testing.**

	strongly disagree	disagree	somewhat disagree	somewhat agree	agree	strongly agree
Choose one	<input type="radio"/>					

**6. How do you perceive the affect (positive or negative) of athletic participation on student achievement?**

**7. How do schools and their respective school systems affect the academic achievement of senior male and female student-athletes?**

**8. Do you find that parental involvement affects the academic achievement of senior male and female student athletes?**



**Appendix C**

**Liberty University IRB Approval**



it is imperative to have a sample that is large enough to make valid conclusions. Furthermore, validity and replication could be enhanced with defined population parameters.

Teachers from each high school will be selected to fill out a Likert scale survey. Each participating teacher will answer five identical predetermined Likert items and will choose one option for each item. The researcher will assign a numerical for each teacher's response as follows: strongly disagree = 1, disagree = 2, somewhat disagree = 3, somewhat agree = 4, agree = 5, strongly = 6. Lastly, on the same survey the researcher will ask the participating teachers 3 identical open-ended questions that will enable the researcher to procure empirical data that will enhance conclusions. The responses for the open ended questions will be coded in order to identify common themes, identical responses, and similar wording.

The requisite data will be collected through the school's guidance department. The researcher will obtain ACT and grade point average data for students that were members of their respective high school's senior class during the 2008-09 school year. Once identifying factors have been removed, the electronic data will be stored on a separate CD or flash drive in a personally locked file cabinet located in the researcher's office. In addition, the teachers' surveys will be stored in the same location. The data will be stored in the locations for the duration of the study—roughly until spring 2010.

The *two-tailed independent paired t-test* will enable the researcher to compare measurements taken from the student-athlete and student groups. The *two-tailed independent paired t-test* will enable the researcher to determine the affect athletic participation has on academic as measured by ACT and GPA scores for the student-athlete subgroup when compared to the student subgroup.

In order to determine differences between the male and female student-athlete subgroups as it relates to G.P.A. and A.C.T. scores the researcher will utilize a *two-tailed independent paired t-test*. The researcher is investigating the potential for significant differences in the academic achievement of male and female student-athletes. A Likert rating scale and empirical data will be the prescribed methods for assessing teacher's attitudes regarding athletics and academics.

### **Research/Survey Questions**

1. What effect does athletic participation have on academic achievement for student-athletes when compared to the student population?

Ho1 1: There will not be a difference between the ACT scores of student-athletes and students who are members of their high school senior class.

Ho1 2: There will not be a difference in the GPA scores of student-athletes and students who are members of their high school senior class.

2. Is there a statistically significant difference between the senior male student-athletes and the female senior student-athletes?

Ho2 1: There will be no difference in the ACT scores of both the male and female student-athletes *who* are members of their senior class.

Ho2 2: There will be no difference in the GPA scores of both the male and female student-athletes who are members of the senior class?

There will be 3 Likert scale items and 3 open-ended responses that will be given to teachers. The survey questions are being sent as a separate attachment. The first 5 items of the survey will be answered using a Likert Scale. The participant will choose one response for the first five items, and there will be a corresponding score assigned by the researcher for each subjects' response. For example, strongly disagree = 1, disagree = 2, somewhat disagree = 3, somewhat agree = 4, agree = 5, strongly = 6. In questions 6-8 the respondents will provide written responses to the open-ended questions. The researcher will code the responses of the participants.

Procedurally the surveys will be handed out to all teachers at a faculty meeting by a building administrator or other school personnel. The researcher will provide 15 minutes for respondents to complete all survey and open-ended questions. The researcher will designate an area in to collect the teacher responses. Prior to and at the conclusion of the survey the researcher will provide an opportunity for the teachers to ask questions and the researcher will discuss the nature of the project. The researcher notes that a pilot survey was conducted at a school which was not involved in the survey. The pilot survey enabled the researcher to identify items or questions which are unclear to the teachers.

6. Will subject's data be gathered anonymously? YES
7. Please describe the subjects you intend to recruit.

As noted above the subjects in this study will be students that were members of the senior class of their respective high school during the 2009 school year. There will be a student-athlete and student subgroups. The subjects will neither be interviewed nor alerted of their participation in the study. The ACT scores and grade point averages of the participants will be devoid of all identifying factors (student ID numbers, names).

I have read the Human Subjects "*Research Exemption Request Guidelines*".

\_\_\_\_\_  
Principal Investigator Signature(s)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Faculty Sponsor (If applicable)

\_\_\_\_\_  
Date