A COMPARISON OF WORK ETHIC AMONG HIGH SCHOOL ATHLETES AND NON-ATHLETES

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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ABSTRACT

Organizations have become increasingly interested in hiring employees who are committed to the inherent value of work. The purpose of this causal comparative study was to compare the work ethic of high school athletes to non-athletes in a high school setting in South Carolina and analyzed the role of gender within that dynamic. A total of 345 responses were analyzed, with 139 reporting no participation in athletics, 87 reporting participation in sub-varsity athletics only, and 119 reporting participation in varsity athletics. The Multidimensional Work Ethic Profile (MWEP) was developed as a method of measuring work ethic and was composed of seven different constructs rather than a single measurement. A two-way analysis of variance was used to determine whether there are differences between each subgroup or whether an interaction between the two exists. Results demonstrated significant difference in work ethic among the three levels of athletic participation. No significant difference was found in work ethic between genders. The research also found a significant interaction between gender and athletic participation.

Keywords: Work ethic, athletes, gender, MWEP (Multidimensional Work Ethic Profile)

Dedication

This dissertation is dedicated to my wife, Carla, and son, Graydon. Carla has supported my endeavors completely throughout the process. I hope the completion of this dissertation will provide Graydon with motivation to achieve whatever goals he sets for himself.

Acknowledgments

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List of Abbreviations

Academic Success Rate (ASR)

Analysis of Variance (ANOVA)

Grade Point Average (GPA)

Graduate Success Rate (GSR)

Least Significant Difference (LSD)

Multidimensional Work Ethic Profile (MWEP)

Positive Youth Development (PYD)

CHAPTER ONE: INTRODUCTION

Background

The term *work ethic* was first used several centuries ago in the post-Reformation period to argue against social welfare and promote individualism (Byrne, 1990). People began believing that individuals could assume responsibility for their place in society, and through work, could improve their condition in life. The modern view of the work ethic construct is primarily attributed to the German scholar Max Weber. He argued that the industrialization and expansion of capitalism in Western culture was partly due to the Puritan value of asceticism (Byrne, 1990). Weber attributed the way in which people work to a religious calling (Mann, Taber, & Haywood, 2013). Financial success was thought to be a result of fulfilling what God had called one to do. He also felt that other Protestant faiths shared the same belief—that the value of work had a theological basis—and thus the term *Protestant work ethic* was created (Miller, Woehr, & Hudspeth, 2001).

However, research has failed to find a consistent relationship between specific religious beliefs and work ethic beliefs (Miller et al., 2001). In fact, Ray (1982) concluded that almost all religious orientations share many of the same beliefs regarding work. He stated that while work ethic beliefs may coincide with religious beliefs, it cannot just be limited to Protestant faiths. In fact, a study conducted in 2012 stated that Muslim Turks living in the United States scored higher on a Protestant work ethic measurement than Christians (Zulfikar, 2012).

While Weber focused his writings on the nature of work ethic, other researchers sought to define work ethic. Most research suggests that the definition of work ethic centers around two primary aspects: the internal characteristics of individuals and the work behaviors displayed externally (McCortney & Engels, 2003). Furnham (1987) stated that work ethic has been

defined in many ways but all relate to a set of numerous individual qualities or personality traits. Stam, Verbakel, and de Graaf (2014) simply defined work ethic as the moral duty to work. Other research points to work ethic being a set of multiple attitudes and beliefs related to work (Meriac, Woehr, & Banister, 2010). Asceticism, integrity, independence, diligence, motivation, loyalty, and dependability are all values that have been associated with the Protestant work ethic (Hill, 1996; Kern, 1998).

However, there are many other theories that attempt to define what work ethic is or why people work. Pup (2012) stated that humans work to provide their living existence, provide opportunities for self-expression of talents and personalities, and provide a feeling of usefulness and need in society. Another study attempted to define work ethic as a combination of teamwork, continuous learning/self-development, concern for quality of work, social accountability, loyalty, leadership, and perseverance (Mann et al., 2013).

Miller et al. (2001) conducted a series of studies to develop a scale that could measure a person's work ethic. Their scale is based on seven concepts that are viewed as components of one's work ethic. They argued that a person's views on these dimensions can be combined to form a composite measure of one's work ethic. These dimensions are hard work, self-reliance, leisure, centrality of work, morality/ethics, delay of gratification, and wasted time.

While there is much research that attempts to define and quantify the concept of work ethic, it remains a fluid and ever-changing definition. However, most research agrees that it must be defined by using several dimensions or sub-categories. The sum of these dimensions can be used to describe one's work ethic.

Problem Statement

The capitalist economic system and the democratic political system can be credited with being primary causes of the economic success that America has enjoyed since its inception. Ingrained in these systems is a work ethic that considers hard work to be the source of immediate and future rewards (Porter, 2010). However, business and economic leaders are concerned that work ethic is declining in America and other industrialized nations (Sacks, 1998). This decline in work ethic can be seen as the cause of America slipping in several key economic statistics. The United States now trail many countries in areas such as infrastructure, education, and wealth equality (Brandon, 2013; Zakaria, 2011). Furthermore, we are seeing a decline in work ethic in our students and an increase in a sense of entitlement. Our students and future workforce do not see the relationship between effort and success (Stevens & Miretzky, 2012). While some research suggests that traits of the physically active parallel those of individuals with a high work ethic (Deci & Ryan, 1985), further research needs to be done to better understand the relationship between physical activity, such as athletic participation, and work ethic (Timco, 2010). Jones, Dunn, Holt, Sullivan, and Bloom (2011) also stated that further research is needed to establish whether sports make a significant contribution to the development of young people. The problem is that there is little research related to athletic participation in high school and student work ethic.

Purpose Statement

The purpose of this causal comparative study was to determine if any differences exist in work ethic, as measured by the Multidimensional Work Ethic Profile (MWEP), among male and female students who either participated in no high school athletics, participated in sub-varsity teams only, or participated in varsity high school athletics. The independent variables were

student athletic participation and gender. Students were grouped as participants of athletics at the varsity level, participants in only sub-varsity athletics, and non-athletes. *Varsity athletes* are defined as those students who have completed at least one varsity sport season, and those students who have only participated in sub-varsity competition were grouped separately. *Non-athletes* are defined as students who have not competed on any athletic team. The second independent variable was gender and was defined as the respondent's sense of maleness or femaleness. The dependent variable was *work ethic*. *Work ethic* is defined as a constellation of attitudes and beliefs pertaining to work behavior (Miller et al., 2001).

Significance of the Study

We are experiencing a period in history where more attention is placed on our public schools than ever before. Increased pressures to meet academic achievement and testing thresholds have caused schools to shift resources away from athletics and physical education (Chomitz et al., 2009). In fact, some schools have even cut athletic programs or denied the request to introduce organized athletics at the middle school level. National studies have shown schools are graduating fewer students and producing students that are not college ready upon entering college (Robertson, 2010). Our public school system is searching for ways to help improve student achievement and work force readiness. Positive youth development (PYD) is an umbrella term used to represent the many studies that examine the benefits of youth sport participation (Neely & Holt, 2014). This effort includes a range of approaches that focus on intentional efforts to develop interests, skills, and abilities that will enable youth to navigate life's challenges and thrive (Lerner, 2002). Catalano, Berglund, Ryan, Lonczak, and Hawkins (2002) described PYD as the processes by which youth acquire a variety of cognitive, social, emotional and behavioral skills. Understanding the relationship between athletic participation

and work ethic will contribute to the growing set of research on PYD and may provide motivation to both students and school districts to participate in and support high school athletics.

Research Questions

The guiding research questions for this study were as follows:

RQ1: What is the impact of athletic participation on work ethic?

RQ2: What is the impact of gender on work ethic?

RQ3: Is there an interaction between athletic participation and gender as it relates to work ethic among high school students?

Null Hypotheses

Null hypotheses for this study were as follows:

$H_0$1: There is no significant difference among the work ethic scores of high school students between those who identified themselves as athletes who participated in varsity athletics, those who participated in only sub-varsity athletics, and those who did not participate in athletics at any level.

$H_0$2: There is no significant difference between the work ethic scores of male and female high school students.

$H_0$3: There is no significant interaction among the work ethic scores of male and female high school students between those who identified themselves as athletes who participated in varsity athletics, those who participated in only sub-varsity athletics, and those who did not participate in athletics at any level.

Definitions

The definitions to the following terms relate specifically to how those terms are applied within this study:

1. *Centrality of Work*— "Belief in work for work's sake and the importance of work" (Miller et al., 2001, p. 14).
2. *Delay of Gratification*— "Orientation toward the future; the postponement of rewards" (Miller et al., 2001, p. 14).
3. *Gender*— "Subjective sense of one's maleness or femaleness" (Kerr & Multon, 2015, p. 183).
4. *Hard Work*— "Belief in the virtues of hard work" (Miller et al., 2001, p. 14).
5. *Leisure*— "Pro-leisure attitudes and beliefs in the importance of non-work activities" (Miller et al., 2001, p. 14).
6. *Morality*— "Belief in a just and moral existence" (Miller et al., 2001, p. 14).
7. *Multidimensional Work Ethic Profile (MWEP)*— "A 65-item inventory that measures seven conceptually and empirically distinct facets of the work ethic construct" (Miller et al., 2001, p. 1).
8. *Positive Youth Development (PYD)*—An umbrella term used to describe studies that examine the benefits of youth sport participation (Neely & Holt, 2014).
9. *Self-Reliance*— "Striving for independence in one's daily work" (Miller et al., 2001, p. 14).
10. *Wasted Time*— "Attitudes and beliefs reflecting active and productive use of time" (Miller et al., 2001, p. 14).

11. *Work Ethic*— "A constellation of attitudes and beliefs pertaining to work behavior" (Miller et al., 2001, p. 14).

CHAPTER TWO: LITERATURE REVIEW

Introduction

Much has been written on the effects that physical activity and participation in athletics has on students. The majority of this research describes the academic and social benefits of such activity or participation. An extensive amount of the literature focuses on students in post-secondary education, and very little focuses on students in their high school years. In fact, very little, if any, examines how athletic participation is related to students' work ethics. This study examines the relationship between work ethic and athletic participation as well as gender.

Review of Literature

Academic Benefits of Athletic Participation

The study of the cognitive benefits of athletic participation or physical activity can be traced all the way back to the Greek philosopher Plato. He found an inherent value in athletics and found that athletes used and improved their cognitive skills through athletic participation (Plato & Jowett, n.d.). In addition to the development of cognitive skills through competition, athletes also develop other skills such as discipline, responsibility, diligence, and cooperation (Butterfield & Brown, 1991).

Collegiate athletics and academics. The increased popularity of intercollegiate athletics has threatened to change the identity of some colleges from an academic institution to that of an athletic franchise. However, many colleges and universities have benefited greatly from the success or popularity of their athletics. Often, athletic programs provide large sums of money toward the academic mission of the school (Gearhart & Long, 2009). Other studies have found other positive benefits of successful athletic programs on the overall collegiate education mission. For example, athletic success has led to reduced acceptance rates, increased donations,

applications, academic reputation, and incoming SAT scores (Anderson, 2012). Colleges may also experience an increase in the number of applicants following successful football and basketball seasons. Perez (2012) even found that an increase in wins led to increased enrollment from local high school students.

Several studies pointed to higher academic achievement for collegiate student-athletes than for their non-athlete peers. Franklin (2006) found that graduation rates for student-athletes were higher than for non-athletes. This result was also found in a study that used alternative graduation assessments such as the Graduate Success Rate (GSR) and the Academic Success Rate (ASR). When data are collected using these measurements, the difference in graduation rate increases between student-athletes and non-athletes (Lawrence, 2008). Franklin (2006) and Lawrence (2008) both cited increased scrutiny by public media and school administration as possible explanations for higher success rates. Henschen and Fry (1984) also found higher graduation rates for athletes versus non-athletes, but the discrepancy was reduced among sports that had higher travel requirements or increased national attention.

While several studies have found that graduation rates for athletes are higher than for non-athletes, other measures do not show consistent differences. The College Sports Project studied grade point averages (GPAs) of athletes and non-athletes and found that both male and female athletes achieved a lower GPA than their non-athlete peers (Emerson, Brooks, & McKenzie, 2009). Emerson et al. (2009) also found that non-recruited athletes achieved a higher GPA than recruited athletes. This relationship was also true for both males and females. This lower GPA can be attributed to the fact that athletes may experience more leniencies in admissions due to their athletic prowess. This leniency in admissions will allow students with lower standardized test scores and lower high school achievement to be admitted even while a

similar non-athlete student would not receive such leniency. Kanter and Lewis (1991) found that student-athletes in California community colleges completed more credit hours per semester than non-athletes but achieved a lower GPA. Another study by James Beal (1999) found no significant difference in GPA among athletes and non-athletes. However, he did find substantial differences in other factors such as repeated classes, academic probation, and annual credit hours earned. In all cases, athletes surpassed their non-athlete peers in the positive direction of each measurement.

High school athletics and academics. As the popularity of college athletics has continued to increase in recent years, high school athletics have kept pace as well. With this increased popularity, we are also seeing an increase in participation in high school athletics. During the 2008–2009 school year, it was reported that 55.2% of high school students participated in athletics (Howard & Gillis, 2010). This rate represented an increase from the 54.8% who participated in the prior school year. In total, over 7.5 million students participated in a high school athletic program, with boys making up well over half the participants (4.4 million). This increase marked the 20th consecutive year of increased participation in high school athletics (Gillis, 2009). Football was the most participated sport among boys, followed by track and field, then basketball. For girls, track and field was most popular, followed by basketball, then volleyball (Howard & Gillis, 2010).

While increased participation is great for athletic departments, schools are concerned with how this affects the students' success in the academic arena. Extensive research has been done to explore the effect of participation in high school athletics. Yancey (2007) stated that students who participate in athletics have better attendance rates and develop more positive student-teacher relationships than their peers. Those benefits are due to athletes developing a

closer bond to both peers and faculty through increased time spent together and by receiving the more individualized attention that sports provide. Another author described organized high school athletics as "a gateway to academic achievement, better grades, improved chances of attending college and success in the labor market" (Rosewater, 2009, p. 52). It also helps students feel more connected to their school through an increase in social capital (Bailey, 2005). Social capital can be attributed to social networks that are developed from participation in shared activities. Athletic participation allows students to participate in these shared activities with students across many different demographics and in turn builds their social capital.

One particular study examined the GPA, class rank, and math GPA of high school students based on their amount of participation in athletics. Students were classified as a high participant if the number of seasons of participation equaled or exceeded their number of years in school or as a low participant if the seasons of participation were less than their number of years in school (White, 2005). According to White's (2005) research, those students classified as high participants had higher overall GPAs, math GPAs, and class rankings than the low participant group.

Data also suggest that student-athletes actually fare better with their grades during their respective seasons than out of season. Silliker and Quirk (1997) hypothesized that participation in athletics would not endanger academic performance. They then studied over 120 student-athletes from soccer teams across five high schools. They found that these students had significantly higher GPAs during soccer season than when soccer was not in season. However, Schultz (2015) found that high school varsity athletes had a small but significant negative effect on academic performance in English and history courses. Junior Varsity athletes in the same study were found to have higher academic performance in math and science courses.

The positive association between athletic participation and GPA also extends to middle school-aged students as well. A study published in 2010 examined GPA based on not only sport participation but also hours of physical activity regardless of sport participation. For high school girls, both physical activity and athletic participation were associated with higher GPAs. However, in high school boys, only sport team participation resulted in higher GPAs. For middle school students, both athletic participation and increased physical activity accounted for higher GPAs in both genders (Fox, Barr-Anderson, Neumark-Sztainer, & Wall, 2010).

The impact of athletic participation extends farther than to just grades and test scores. Athletic participation also encourages students to seek higher-level courses. Pearson, Crissey, and Riegle-Crumb (2009) studied advanced course enrollment in sciences and foreign language. Across both academic areas, boys and girls who participated in high school athletics had higher enrollment in those advanced courses. While male athletes still outnumbered female athletes in advanced physics courses, there was a larger discrepancy between female athletes and female non-athletes than male athletes and male non-athletes. The authors suggested that athletics could provide the extra opportunity to develop skills and confidence to undertake the challenges of the advanced sciences that are dominated by male students.

Other academic impacts. Athletic participation has many positive impacts that stretch beyond the standard academic measurements. Many other skills are developed that have an indirect impact on a student's academic success. One such skill that is developed through athletics is that of discipline. *Athletic discipline* can be defined as "training that develops self-control, character, order, and efficiency" (Baribeau, 2006, p. 56). These skills, which are easily learned in the athletic arena, can greatly benefit students in the classroom as well. Classrooms as a whole also need such discipline in order to be conducive to student learning (Grode, 2009).

Having students who have been taught these skills outside of the classroom will greatly benefit both the student and the class as a whole.

Motivation is another aspect of a student's life that is developed through athletic participation. Students with a higher motivation for successful completion of assignments score significantly higher on assessments than students who exhibit little motivation for success (Abdelfattah, 2010). The key is to determine how to instill this motivation in students. Athletics can be a great avenue to teach competitiveness, which in turn motivates one to succeed; it also requires successful performance in the classroom. The South Carolina High School League requires students to earn a minimum number of credits during each term to be eligible to participate in high school sports. This requirement often provides ample motivation for students to succeed. However, this extrinsic form of motivation can sometimes be detrimental because it may diminish the more effective intrinsic motivation that comes from within the student (Crow, 2010).

Participation in athletics also helps students develop leadership skills. During a normal school day, there are very little opportunities for students to take on leadership roles with their peers. However, participation in extracurricular activities such as high school athletics provides many opportunities for students to develop leadership skills (Oldham, 1999). Athletics also allows students to experience teamwork and a sense of belonging to a larger whole. This experience of belonging to a team will only benefit students as they travel through life's journey (Cassel, Chow, Demoulin, & Reiger, 2000).

Another aspect of a student's life that is affected by athletic participation is proper management of time during the school year. Balance in students' lives, such as budgeting time and handling distraction (Jianzhong, 2009), is very important to school success as students deal

with the “barrage of cultural distractions that clamor for [their] attention” (Oldham, 1999, p. 48). Research suggests that when students have a lot of time to themselves, they end up “procrastinating, spending spare time doing things like watching TV or sleeping, rather than homework, projects or assignments” (Ghahari, 2009, p. G10). Participating in athletics helps students develop planning skills that can assist them in working efficiently with the limited amount of spare time available to them during sports seasons. In fact, research out of the United Kingdom reported that academic performance is enhanced in spite of the reduction of free time for study (Bailey, 2005).

Other Benefits of Athletic Participation

While there is substantial documentation on the positive effects of athletic participation and physical activity on a student’s academic standing, there is also substantial research that describes many non-academic benefits of participation. One of the many benefits that athletics provides is social connection to peers or schools. Hoffman (2006) stated that students involved in extracurricular activities such as athletics develop stronger bonds to their school and reap the social benefits. Participation is a very important socialization experience for students because it provides an arena in which to expand their social network, develop new peer relationships, and practice many inter-personal skills. This social network of participants may provide the motivation to engage in conventional activities and avoid problem behaviors (Hoffman, 2006).

The attachment to school has been noted as a cause of avoidance of delinquent behavior. According to Segrave and Hastad (1984), several studies point to the positive benefit of positive school attachment. Students who do not like their school or their teachers are more likely to demonstrate delinquent behaviors. Athletes are likely to perceive school as a positive experience because they enjoy extra help from teachers and coaches, enhanced chances of upward mobility,

and increased exposure to pro-educational influences. Segrave and Hastad conducted further research to determine the difference between athletes' and non-athletes' participation in delinquent behaviors. They found that 45.5% of athletes reported involvement in delinquent behaviors compared to 52.3% of non-athletes. When broken down by gender, the decrease in delinquency among athletes was consistent among males and females. In a narrower approach, several studies indicated that athletic participation reduces participation in specific delinquent behaviors that involve alcohol, drug, and tobacco use (Bailey, 2005; Crosnoe, 2002; Reid, 2005; Sitkowski, 2008; Yancey, 2007). Students begin using drugs and alcohol because they are not "involved in other acceptable and satisfying social pursuits" (Cassel et al., 2001, p. 249). Athletics provide students with an acceptable social endeavor that can allow them to resist the temptation to use alcohol or drugs or practice other illegal behaviors. Cassel et al. also found that over 80% of inmates in prison had no history of participation in extracurricular activities while in high school.

While both males and females enjoy the many benefits of athletic participation, females may enjoy a wider variety of benefits than males. Kuga and Douctre (1994) conducted a study that sought to examine the impact that athletics had on self-image and other psychological areas among boys and girls. While both genders found athletics to be a positive experience, females from both age groups tested indicated that they received social benefits from participating, such as heightened self-image, increased self-confidence, and a healthier mental state of mind.

Another study conducted by Elliot et al. (2006) sought to determine whether participation in athletics had an effect on female self-esteem and body image. Their study used students from both middle school and high schools. Their findings suggested that female athletes enjoyed higher self-esteem and avoided negative behaviors that affect body image. Sitkowski (2008)

agreed that females develop higher self-esteem and better body image through athletic participation.

Daniels and Leaper (2006) sought to determine if there was a mediator between athletic participation and self-esteem. They hypothesized that peer acceptance would be related to athletic participation and thus serve as a mediator between the two. They cited the increased need of belongingness during adolescence as a possible explanation. They collected data from a nationally representative sample of adolescents, and the data supported their hypothesis. Peer acceptance was found to be a mediator between athletic participation and self-esteem. Their findings suggest that sport participation should be viewed in a larger social context.

Athletic participation has also been linked to many other social benefits, such as discipline, diligence, responsibility, leadership, and teamwork (Butterfield & Brown, 1991; Fejgin, 1994). Other studies focused more specifically on the leadership development of athletic participation. Dobosz and Beaty (1999) stated that high school athletics provided a venue for students to develop and apply successful leadership practices. They compared athletes and non-athletes by using the Leadership Ability Evaluation. They found that athletes possessed more leadership abilities than did their non-athlete peers. They also stated that due to the increased leadership abilities, athletes were more apt to avoid personal prejudices and could accept peer's strengths, weaknesses, and differences more easily.

Athletic participation can also be linked to more success in future employment. Pfeifer and Corneliben (2010) found that student-athletes spent more time in sports and less time on activities that do not provide meaningful skills. Athletics also teach athletes several skills that lead to successful employment, such as teamwork and the ability to take direction. These skills and traits suggest a link between athletic participation and future employment success.

Gius (2011) studied the impact that athletic participation had on future job earnings. He cited the National Longitudinal Survey of Youth and found that, after 10 years, high school athletes earn 26% more than peers do who did not participate in athletics. This difference in salary increased to 37% after 20 years. Gius also compared the effect on future earnings between athletic participation and membership in the National Honor Society. The study found that former athletes enjoy higher salaries later in life than do former honor society students.

Another study conducted by Barron, Ewing, and Waddell (2000) examined both future wage earnings and educational attainment of students who participated in high school athletes versus those who did not. They found that high school athletes enjoy higher educational attainment than do their non-athlete peers. The discrepancy was even larger for athletes whose participation was classified as intensive. In addition to studying educational attainment, the study also compared employability and wage earnings. There was no significant difference in employability rate among athletes and non-athletes 12 years after graduation. However, their study corroborated Guis's (2011) study and found that athletes enjoy a significantly higher salary than their peers who do not participate in athletics.

Work Ethic

The term *work ethic* was derived from post-Reformation scholars who were promoting individualism as opposed to social welfare (Byrne, 1990). These scholars believed that through hard work, people could improve their life, and their condition in life was their own responsibility. However, the term *work ethic* evolved over time; it was studied intensely by the German scholar Max Weber. He developed the theory of the Protestant work ethic, which stated that one's view of work was based on religious beliefs (Weber, 1958). He based his theory in part on the Puritan value of asceticism, which requires people to achieve personal discipline

through the self-denial of luxury, worldly pleasures, and conveniences, and a focus on efficient use of time (Miller et al., 2001). According to Weber (1958), one's acceptance of an ascetic lifestyle would translate into not only a strong work ethic and a valuable place in a capitalist economy, but also a higher standing with God. He also contended that other Protestant faiths shared the beliefs that economic success was also a derivative of one's commitment to God. Due to this shared belief of a theological underpinning of one's work ethic, he termed it *Protestant work ethic*.

While the origin of the definition work ethic was based strongly on a religious foundation, others contended that it had nothing to do with religion at all. In fact, Weber (1958) himself predicted it would evolve away from a religious background. He stated that once society saw the economic benefits of the Protestant work ethic, other members of society would adopt similar work principles regardless of religious beliefs. As a result, the values associated with economic success would become entrenched in society and not be aligned with religious beliefs at all. Other authors agreed that work ethic has evolved away from a religious background and toward a more secular concept. According to Ray (1982) and Pascarella (1984), other non-Protestant religions share many of the same work attributes that Weber stated was limited to Protestants. As a result, both Ray and Pascarella agreed that though the Protestant work ethic correctly describes the benefits of certain attitudes toward work, it cannot be limited to solely Protestant faiths.

Based on previous literature and their own empirical research, Miller et al. (2001, p.5) described work ethic as not a unitary construct but "a constellation of attitudes and beliefs pertaining to work behavior."

Multidimensionality of work ethic. While much of the original debate on work ethic focused on the origin and foundation of where work ethic was derived from, later discussion focused on the multidimensionality of work ethic and how to accurately define it. Most definitions focus on either two areas: attitudes or values and behaviors (McCorney & Engels, 2003). For example, the most common definitions "portray a person who values hard work and displays personal qualities of honesty, asceticism, industriousness and integrity" (McCortney & Engels, 2003, p. 136).

In fact, most current accepted perspectives view work ethic as multidimensional (Geren, 2011). One attempt to label the dimensions of work ethic was constructed by McHoskey (1994), who developed four elements of work ethic: success, asceticism, hard work, and anti-leisure. However, he also noted that several other important aspects of work ethic were absent. Furnham (1990) also identified five work ethic factors and identified them as belief in hard work, leisure, religious and moral beliefs, independence from others, and asceticism.

Miller et al. (2001) created the most comprehensive study on the multidimensionality of work ethic and its construct. They stated that the characteristics of the work ethic construct are:

> "(a) multidimensional; (b) pertains to work and work-related activity in general, not specific to any particular job (yet may generalize to domains other than work—school, hobbies, etc.); (c) is learned; (d) refers to attitudes and beliefs (not necessarily behavior); (e) is a motivational construct reflected in behavior; and (f) is secular, not necessarily tied to any one set of religious beliefs." (p. 5)

Through their research, they developed a seven-dimension construct that measures one's work ethic. These seven dimensions are centrality of work, self-reliance, hard work, leisure, morality/ethics, delay of gratification, and wasted time.

Work centrality. Miller et al. (2001, p.14) defined work centrality as "belief in work for work's sake and the importance of work." This concept of the centrality of work has been widely researched and defined several different ways. Chao and Gardner (2007, p. 3) defined work centrality as a method of describing how "involved people are with their work." Other sources use anecdotal examples to explain the meaning of work centrality. People who report that they would continue to work after achieving retirement eligibility are said to have a high level of work centrality (Arvey, Harpaz, & Liao, 2004). Other examples that attempt to provide realistic explanations of work centrality include people who report that they would continue to work after winning a large sum of money (Warr, Cook, & Wall, 1979).

A person's profession can also affect their perceived level of work centrality. People often judge their own self-worth or identity by the job or position that they hold in their organization. An occupation or profession can "define a person by giving him or her sense of identity, meaning, and accomplishment" (Chao & Gardner, 2007, p. 4). Therefore, work can take on a role much more extensive than something that is just a means to generate income. It can also become a "source for the formation of identification and self-image and a necessity of fulfilling basic needs" (Sharabi & Harpaz, 2010, p. 379).

Several studies have been conducted to study the concept of work centrality, and throughout that research, job involvement has become a substitute measure for work centrality (Ng, Eby, Sorenson, & Feldman, 2005). The leading measurement for work centrality or work involvement was published by Rabindra Kanungo (1982, p. 97); that measurement used a questionnaire that consisted of the following six statements, wherein respondents were asked to rate their strength of agreement or disagreement:

1. The most important things that happen in life involve work.

2. Work is something people should get involved in most of the time.
3. Work should be only a small part of one's life.
4. Work should be considered central to life.
5. In my view, an individual's personal life goals should be work-oriented.
6. Life is worth living only when people get absorbed in work.

Chao and Gardner (2007) used this scale to analyze work centrality among young adults. The first comparison centered on overall work centrality of young adults from 1982 and 2005. In 2005, young adults had a significantly lower work centrality than a similar group in 1982. The largest difference in responses came in Questions 6, 4, and 1, respectively. They also compared work centrality among male and female respondents. According to their study, young men showed a tendency to display a higher work centrality than young women. Because differences between the work centrality of men and women have existed over time (Harpaz & Fu, 1997; Mannheim, Baruch, & Tal, 1997; Snir & Harpaz, 2006), these findings were not surprising and could be easily attributed to women feeling more responsible for family and household duties. The differences in younger and older generations' views toward work can possibly be attributed to an increased focus and availability of leisure and entertainment as society has evolved.

Instead of comparing work centrality between groups, other research has tried to explain what causes high work centrality or what can result from an individual having high work centrality. Kastek (2012) examined three antecedents of work centrality (sex, age, and education) as well as four consequences of work centrality (job satisfaction, hours worked, organizational commitment, and job involvement). His findings supported other research in the area. Similar to Mannheim et al. (1997) and Harpaz and Fu (1997), Kastek found that men displayed a higher value of work than women did. Kastek also found a positive relationship

between age and education level to work centrality. Older respondents and those with higher education levels both scored higher on work centrality scales than younger respondents or those with less education. Schmidt and Lee (2008) believed that older employees have more time invested in career building and more financial responsibilities, and these create a stronger bond to their professional life. The amount of education one has can also be attributed to one's motivation for advancement and can easily be seen as related to one's motivation and identification to work. Kastek (2012) also found a positive relationship between those who scored high on work centrality scales and his four studied consequences: job satisfaction, hours worked, organizational commitment, and job involvement. While these consequences can be easily predicted based on the research, some may produce undesired results. Excessive hours worked or excessive commitment to one's organization can lead to an unbalanced life and result in unwanted consequences in one's life outside of their work.

Self-reliance. The concept of self-reliance was introduced in Ralph Waldo Emerson's essay *Self-Reliance,* in the mid-1800s (Emerson, 2010). His descriptions and definitive essay helped carve the modern-day concept that is used across many disciplines. He emphasized that "in order to gain one's own independence, one must first abandon all things that have been learned and seek to accumulate on the knowledge which one attains firsthand" (Liang, 2013, p. 1352). He also broke down self-reliance into two main categories: self-reliant activities and mental self-reliance (Liang, 2013). Emerson also cited the importance of independent thought and the inherent danger in seeking the approval of others. He stated, "What I must do is all that concerns me, not what the people think" (Emerson, 2010, p. 66).

The concept of self-reliance can be used across many different platforms. In terms of work and work ethic, it can be defined as "striving for independence in one's daily work" (Miller

et al., 2001, p. 14). Applying this concept to one's work can prove to be very beneficial. Much of the success of a free market economy can be attributed to individual creativity and a self-reliant mentality. Caplan (1996) stated, "Without a widespread individualistic mentality, free markets reveal only a fraction of their progressive power" (p. 1). Evidence also demonstrates the negative impact that a lack of self- reliance can cause. A study conducted on the economies of East and West Germany at the time of the fall of the Eastern Bloc found that the lack of a self-reliant workforce led to the collapse of the economies of Central and Eastern Europe (Bauernschuster, Falck, Gold, & Heblich, 2012). Similarly, a decline in the traditional ethos of self-help and self-reliance has led to overdependence by the Botswanan work force on the state (Makgala, 2013).

There are also many advantages to enjoying epistemic self-reliance beyond the economic benefits. Someone who enjoys epistemic self-reliance can be described or defined in several ways. Zagzebski (2007, p. 254) described such a person as one who "maintains that the fact that someone else has a belief is never a reason for her to believe it," and as one who "puts greater trust in her own faculties than in the faculties of others." Fricker (2006, p. 234) described a self-reliant person as one who relies only on "what she has found out for herself, relying only on her own cognitive faculties and investigative and inferential powers." Another definition of epistemic self-reliance is "the practice of relying on one's own faculties, rather than those of others, in the formation and maintenance of beliefs" (Byerly, 2014, p. 2). While this idea of a purely epistemic self-reliant person is noble, it may not be achievable. Rather, a more realistic definition may describe someone who can choose when to rely on others or not. However, when one gains cognitive achievements through the practice of epistemic self-reliance, these achievements are more valuable (Byerly, 2014). Practicing epistemic self-reliance also provides

a wider variety of achievements than does relying on others. This concept can also be applied to one's work life. Achievements made through self-reliant work will prove to be more valued internally than those that rely more prominently on the work of others.

Hard work. It is commonly accepted that hard work will often result in success. However, defining and quantifying hard work is very difficult. Definitions are often vague and do not lead to a definitive description of what hard work is. The instrument upon which this study is based defines hard work as "belief in the virtues of hard work" (Miller et al., 2001, p. 14). However, this does not give us a clear definition of what these virtues of hard work entail. Wilson (2014) attempted to devalue the virtue of hard work by referring to it as meritocracy or our tendency to attribute our success to our ability or work alone and not as a gift from God. He also stated, however, that the ability to work hard can be classified as *charismata*, or gifts of grace, from God.

Busch (2012) described hard work as an emotional virtue rather than a physical characteristic. He broke down hard work into five elements: the drive, the plan, the grind, the sacrifice, and the payoff. The drive is the motivation or inspiration that causes one to give his or her best effort. Taylor (2010, para. 2) defined motivation in five simple examples:

1. An internal or external drive that prompts a person to action.
2. The ability to initiate and persist at a task.
3. Putting 100% of your time, effort, energy, and focus into your work.
4. Being able to work hard in the face of obstacles, boredom, fatigue, stress, and the desire to do other things.
5. Motivation means doing everything you can to be as productive as you can.

Hard work also involves developing a plan of action to accomplish a difficult task. According to McLean (2010), success comes not from goal setting, but active planning. Once a proper plan is created, the next phase of hard work becomes the grind. This stage involves the stage in which work "stops becoming fun and exciting, and starts becoming tedious, stressful, and perhaps even discouraging" (Busch, 2012, para. 8). Getting through this stage of work is what separates work from hard work. Taylor (2010) opined that getting through this stage of work is where it really counts.

The next component of hard work is sacrifice. *Sacrifice* is defined as "what you choose not to do for the sake of your ambition" (Busch, 2012, para. 53). In order to become very successful at something or to truly devote hard work to a task, it takes a significant portion of the time one has available. Ericsson, Krampe, and Tesch-Romer (1993) stated that 10,000 hours of deliberate practice is needed to achieve a level of expertise at any task. While reaching expert status is not synonymous with hard work, it does illustrate the extensive time needed to truly devote oneself to a task. The last stage of hard work is the payoff. Busch (2012) described the payoff as the brass ring, or milestones, that one can recognize throughout the process. While hard work will not always bring a desired payoff, studies such as Schulz's (2012) do suggest a positive relationship between working hard and the achievement of a desired result.

Leisure. While most research regarding work ethic consists of actions, philosophies, or beliefs regarding time spent at work, there is also research that relates to how time out of work affects one's work ethic. In fact, Miller et al. (2001, p. 14) included leisure as one of their constructs of work ethic and defined it in their instrument as "pro-leisure attitudes and beliefs in the importance of non-work activities." Substantial amounts of research also attempt to define and explain what leisure is and how it relates to one's work life.

The most basic framework of leisure equates leisure with free time (Smigel, 1963). However, de Graza (1964) specified that leisure sometimes happens during free time but does not necessarily occupy all free time away from work. One of the earliest multivariate research approaches conducted by Kaplan (1960, p. 130) identified seven essential elements to leisure:

1. An anti-thesis to work as an economic function;
2. A pleasant expectation and recollection;
3. A minimum of involuntary social-role obligations;
4. A psychological perception of freedom;
5. A close relation to the values of the culture;
6. The inclusion of an entire range from inconsequence and insignificance to weightiness and importance; and
7. Often, but not necessarily, an activity characterized by the element of play.

Later research postulated that leisure was only composed of two dimensions: perceived freedom and intrinsic motivation (Neulinger, 1974). In other words, the leisure activity had to be freely undertaken, and the activity itself had to provide satisfaction and could not produce an external benefit. This early research on leisure provided a widely accepted definition and characterization of leisure that remained for many years. More recently, Dillard and Bates (2011) reopened the evaluation of leisure and recreation. Their findings supported much of the previous research but also found that there were some changes over time. They found that society's motivation for leisure and recreation rests on two anchor points: (a) activity participation, whether focused inwardly (self) or outwardly (others) and (b) the benefit attained from the experience. They also identified four motivations for leisure and recreational activities: escape, enhancing relationships, personal mastery, and winning. The authors suggested that these findings help drive the

recreation and leisure industry as businesses tailor their offerings to meet the various motivations that exist for non-work activities.

While it may seem obvious that there are psychological benefits to enjoying leisure or recreational activities, the literature provides an extensive list of such benefits, including the opportunity to explore one's true self and self-identity (Samdahl, 1991) and lessening tension (Lee, Dattilo, & Howard, 1994). Leisure activities also improve physical and mental health by preventing disease, increasing positive emotions, and reducing anxiety or depression (Godbey, 2003). Duvall (2011) found that outdoor leisure activities can specifically improve physical and mental health. A study conducted on Taiwanese students found that chatting with friends and walking outdoors provided significant decreases in anxiety and restoration of attention (Weng & Chiang, 2014).

While it is widely accepted that leisure and recreational activities provide a mental and physical benefit, some people have a difficult time committing to such activities. A survey conducted in Great Britain reported that 70% of respondents reported that they think about work issues while not at work (Gallie, White, Cheng, & Tomlinson, 1998). Warburton, Nicol, and Bredin (2006) suggested that humans exhibit an increase in mental and physical problems due to a decrease in natural environment activities. Suadicani, Hein, and Gyntelberg (1993) suggested that the inability to disengage from work can lead to an increased risk of heart disease. Therefore, in order to fully recover from work and benefit from leisure or non-work activities, workers must be able to disengage mentally from work issues. However, uncompleted work tasks (Cropley & Millward, 2009) and constant connectedness to work through advanced communication technology (Boswell & Olson-Buchanon, 2007) makes disengagement difficult.

Zoupanou, Cropley, and Rydstedt (2013) found that workers who valued the centrality of work and valued leisure less were less able to disengage and recover mentally from work.

Morality/ethics. Another construct used to evaluate one's work ethic is their commitment to moral and ethical behavior. Miller et al. (2001, p. 14) described this type of worker as one who "believes in a just and moral existence." Moral and ethical behavior is a major component of the workforce and can affect workforce environment as well as a business' profitability. Morality can, in fact, boost group pride and identification much more than competence (Pagliaro, Brambilla, Sacci, D'Angelo, & Ellemers, 2012). Ellemers, Kingma, Van den Burgt, and Barreto (2011) even went so far as to state that perceived organizational morality enhanced an employee's pride in his or her organization and could predict his or her commitment and work satisfaction.

The question then arises as to what constitutes moral behavior in the workplace. While it can be simply described as merely not taking office supplies home or being fair to all employees, it can also have a much deeper meaning as well. According to Tomhave and Vopat (2013), professional moral behavior is one that protects a primary good of an individual. Rights, freedoms, bodily integrity, opportunity, income, wealth, and the social bases of self-respect are all considered primary goods.

According to Kenny (2013), ethics in the workplace combines law and order with morality. The law states that we must not harm others, while morality gives the reason. To enhance or control a workforce's behavior, companies often develop and enforce a code of conduct. This code is where ethical and moral behaviors are outlined. The degree to which a company upholds this code of conduct can have a great impact on the success of the company and how the company is perceived in society. More than 95% of Americans reject the opinion

that a company should focus solely on profit and monetary considerations (Gross-Schaefer, 2009). The 1991 federal sentencing guidelines have even placed liability on a corporation if it consistently violates a code of conduct (Gibson, 2000). While corporations are free to develop their own code of conduct, there are some published guidelines as to what that code should entail. Kenny (2013) listed several topics that should be covered, including but not limited to communication, employment practices, conflicts of interest, financial integrity, gifts and favors, misuse of company assets, health and safety, inside information, competition and antitrust, substance abuse, and international transactions. While many of these may only apply to larger or international corporations, the list does provide a valuable starting place for a business of any size. For any size company, the code of conduct should at a minimum provide individuals "some cognitive assistance in determining a reference point for judging what is ethical, especially when the person is trying to evaluate the rightness of a decision by its consequences" (Gibson, 2000, p. 65). This objective code should be able to be applicable and available to all employees.

In spite of clearly defined expectations by almost all corporations in regards to moral and ethical behavior, there are always examples of workers falling short of such expectations. Four common excuses for immoral or unethical behavior in the workplace encompass the vast majority of why such behavior exists (Gibson, 2000). The first major cause of unethical or immoral behavior involves subordinates acting on directives from their superiors. According to Gibson (2000), "Obedience to authority is often a simple way out of a difficult situation" (p. 66). Being told or instructed to do something that violates one's own moral compass by a superior can put an employee in a very awkward and delicate situation. As a result, the current trend in employment law is to provide protection for employees to exercise their conscience even if it is against the commands of their employer or the demands of the job (Von Bergen, 2009).

Unfortunately, however, workers "often obey without thinking" (Gibson, 2000, p. 66). The second cause of such behavior relies on the acceptance of convention—the excuse that everyone else does it. The reliance of others' actions to justify one's own can create a moral environment of the lowest common denominator. The other excuses that encompass immoral or unethical behavior in the workplace are that the act will not make a difference or that the problem is not within an individual's realm of responsibility. While small immoral acts may not seem to make a difference, the sum of many of these acts do. An employee taking one office pen home may not register on the financial reports, but when replicated *en masse*, it will. Lack of ethical and moral behavior costs American businesses $400 billion a year (Gibson, 2000).

Delay of gratification. One aspect of the human brain that separates humans from other species is the ability to travel subjectively through time (Suddendorf & Corballis, 2007). Schacter, Addis, and Buckner (2007) referred to this concept as mental time travel and stated that it allows people to structure their behaviors and actions to satisfy daily challenges. This ability, in turn, affords people the option to postpone gratification until a future time. Some people will choose a smaller immediate reward over a larger delayed reward. Others who prefer delayed gratification choose a larger reward in the future. The concept of delayed gratification is also referred to as delay discounting (Kirby & Maraković, 1996). Miller et al. (2001, p. 14) described delayed gratification as "orientation toward the future; the postponement of rewards." Although there has been a rise in popularity of immediate satisfaction in today's culture, studies show that delayed gratification can positively affect one's health, wealth, and happiness (Daugherty & Brase, 2010; Dittmar & Bond, 2010).

The foundation for delayed gratification research was conducted with a simple test using children and marshmallows (Mischel, Shoda, & Rodriguez, 1989). Children were presented with

an option of having one marshmallow immediately or waiting for the opportunity to have two marshmallows. Some children chose the delayed but greater reward of having two marshmallows. Follow-up studies with these same children indicated that those children who chose delayed gratification scored higher on the SAT and had increased emotional coping skills as adolescents (Mischel et al., 1989). Another study followed these same subjects into adulthood and demonstrated that the ability to delay gratification as a child produced higher self-control in adults up to forty years later (Casey et al., 2011). A replication of the study conducted with 10-year old children found that those who waited longer were also found to be happier, more relaxed, and better at handling stress (Duckworth, 2009).

Delayed gratification can also have an impact on one's professional life as well. The ability to orient one's self to the future is a determinant to human motivation since goals, plans, and hopes all reside in the future (Nuttin & Lens, 1985). The ability to foresee benefits helps one's ability in the workplace because he or she can foresee the benefits of the work that he or she is completing presently.

Wasted time. One of the seven dimensions of work ethic described in the MWEP is wasted time (Miller et al., 2001). Miller et al. (2001) defined it as "attitudes and beliefs reflecting active and productive use of time" (p. 14). Someone who avoids wasting time or uses his or her time at work productively and efficiently is said to be someone with a higher work ethic than someone who engages in those types of behaviors. Another definition of wasted time is described as "any activity that led to work being binned (trashed), not used, repeated, or also done by someone else at the same time" (Lucas, 2013, p. 7).

Unfortunately, wasted time is prevalent among workers. Various studies indicate that workers waste anywhere from 2 to 6 hours every workday (Dale, 2012; Flinchbaugh, 2013;

Malachowski, 2005). This enormous amount of wasted time can have a huge impact on the effectiveness of the organization and therefore profits. Malachowski (2005) estimated that in 2005 American employers spent over $750 billion on salaries for which work was expected but no work was done. His study listed the top five distractions to actual work (by order of prevalence) as (a) surfing the internet for personal use, (b) socializing with coworkers, (c) conducting personal business, (d) spacing out, and (e) running errands away from the workplace.

However, not all wasted time consists of time spent completely ignoring work. Often, workers are active but simply not being productive. Time spent preparing for work may be essential, but cannot be classified as "wrench time," which is a term used to categorize actual productive activities (Dale, 2012). Dale (2012) further classified workers' time in four categories: (a) unavailable for work; (b) available for work, but not working; (c) available and active, but not adding valuable work; and (d) available for work and adding valuable work time. Dale's lens through which to examine worker efficiency is an effective way to distinguish between worker activity and worker production. Looking for tools, planning, movement to a job location, and overstaffing a project are examples of active participation in work, but not productive work. These necessary but non-value adding steps are inherently embedded in every job. In order to alleviate non-value adding work, it is imperative that an organization work to develop a system that organizes and efficiently minimizes this type of wasted time.

Wasted work time can even be evaluated on a personal work level basis. In order to assess one's own work efficiency, he or she must evaluate the seven wastes to one's current work state. Flinchbaugh (2013) listed these seven wastes as transportation, inventory, motion, waiting, over-production, over-processing, and defects. *Transportation* is described as the number of handoffs one's work entails with other people. *Inventory* refers to the size of one's

personal queue of work tasks, and *motion* involves time spent searching for information. *Waiting* is a waste of time that occurs when one sits idle waiting for other tasks to be completed or other information to be obtained. *Over-production* refers to the completion of tasks far in advance of a due date or the inaccurate prioritization of tasks, and *over-processing* is doing more than necessary. Reworking, redoing, or correcting completed tasks fall under the waste entitled *defects*. While avoiding these wastes completely is impossible, it is important for one to be aware of their occurrences and to take action to minimize them as much as possible.

It is also very important not to confuse wasted time with interruptions since some interruptions can be positive. In fact, creative waste could have a positive impact on an organization's culture, environment, and even results (Malachowski, 2005). For instance, the corporate giant Google is well known for having an almost playground-type atmosphere at work. Other research suggested that if an interruption is considered positive in nature, it will be more readily accepted and not have a negative effect on work efficiency. Examples of such interruptions are a chat with a colleague during a monotonous or boring task, urgent interruptions from superiors, or questions raised by colleagues (Zoupanou et al., 2013).

Comparisons of work ethic. Miller et al. (2001) created the MWEP in order to reliably compare the work ethic among different samples. One such study compared the work ethic profile among college students and work force professionals (Van Ness, Melinsky, Buff, & Seifert, 2010). The college student sample consisted of juniors and seniors from a large northeastern university and a smaller northeastern college. The work force sample was constructed from various businesses within a wide range of industries. The two samples had significant differences in six of the seven dimensions of work ethic. The student sample had significantly higher scores in self-reliance, leisure ethic, and propensity of hard work. The work

force professionals had a higher distaste for wasted time, enjoyed stronger moral and ethical aptitude, and viewed work as a more central part of their life. While students had a higher mean score on their view of delayed gratification, the difference was not significant (Van Ness et al., 2010). All findings supported Van Ness et al.'s (2010) literature-based hypotheses except the differences in hard work and delay of gratification.

Another study used the MWEP to study the differences in work ethic across three different cultures. The MWEP was translated into a Spanish and Korean version to give to the appropriate samples (Woehr, Arciniega, & Lim, 2007). The American sample consisted of 238 employees from four non-military organizations. The Mexican sample was composed of 208 full-time working adults from the metropolitan area of Mexico City. The Korean sample was taken from 412 adults working in various multinational corporations in the city of Seoul, South Korea (Woehr et al., 2007).

Upon completion of the study, there was no significant difference between any three of the samples in the dimensions of delayed gratification and hard work (Woehr et al., 2007). Four of the dimensions found no significant difference between the American and Mexican sample, but both groups differed significantly from the Korean sample. The Korean sample had significantly higher scores on self-reliance and hard work but significantly lower scores on leisure and morality/ethics. The seventh dimension of centrality of work found all three samples to be significantly different. The Korean sample had a significantly higher score than the Mexican sample, which had a significantly higher score than the American sample (Woehr et al., 2007).

Another study used the MWEP to compare work ethic profiles of respondents from three different generational cohorts. The three cohorts were identified as Baby Boomers (born

between 1946 and 1964), Generation Xers (born between 1965 and 1980), and Millennials (born between 1981 and 1999; Meriac et al., 2010). It is important to note that in this study, the Generation Xers and Millennials were approximately the same mean age at the time the data were collected, while the Baby Boomers were significantly older at the time of data collection (Meriac et al., 2010).

There were significant differences in mean scores between at least two cohorts in all dimensions, with the exception of leisure. For self-reliance, centrality of work, and wasted time, Baby Boomers scored significantly higher than both of the other two cohorts, but the younger cohorts were not significantly different. All three cohorts were significantly different in morality/ethics, hard work, and delayed gratification, with Baby Boomers scoring highest, followed by Millennials, then Generation Xers, respectively (Meriac et al., 2010). This difference in scores from the Baby Boomer cohort could be attributed to the fact that they were quite older at the time of the test than the other two cohorts were. Coinciding with this age difference are differences in career stages. Baby Boomers, while also older, were at a much different stage in their career than the other two cohorts at the time of testing. However, findings do not suggest a linear trend of one's work ethic as a function of age or career stage (Meriac et al., 2010).

Gender differences. Much has been written about differences that males and females experience in the work place. Gender pay inequality is well documented. Women were only paid about 64.5% of what men were paid for similar jobs in the United States in the mid-1950s. This percentage has risen to 75.7% in 2010, but there is still a considerable gap in pay (Lips, 2013). This discrepancy is not only seen in the United States, but other parts of the world as well. In 2010, women in Europe made only 82% of what males make for similar positions

(Eurostat, 2015). It is also well documented that historically there has been a glass ceiling that prevents women from reaching the top of an organizational hierarchy (Baxter & Wright, 2000). However, due to increased efforts for equality, female labor participation has continued to rise, and there are more women gaining access to top managerial positions (Semykina & Linz, 2013). Unfortunately, while there may be more women gaining access, there is still an imbalance in gender at the top positions in our workforce. However, Bender, Donohue, and Heywood (2005) suggested that women choose not to undertake these positions because they entail unpredictable work hours, travel, long hours, and the like.

While these differences are well documented, it is not clear if these differences can be explained by a difference in work ethic or work values between men and women. In hourly wage professions, the mere difference in hours worked can cause a large discrepancy in wages earned. This difference can be compounded when overtime pay is considered for these extra hours worked. Several studies over the past thirty years have looked at the difference in hours worked among men and women. Jacobs and Gerson (2004) found that in the early 1980s, 13% of men worked 50 hours or more a week compared to only 3% of women. By the year 2000, it was found that 19% of men and 7% of women worked over 50 hours a week. While each gender had an increase in percentage of over-workers, the gap between men and women increased. However, other literature suggests that women are less likely to enter these jobs (Epstein, Seron, Oglensky, & Saute, 1999) or are less likely to stay in jobs that require overwork (Cha, 2013). A possible and reasonable explanation for women's lack of interest in working long hours is that women are more interested in relationships and are more responsible for family and household duties (Snir & Harpaz, 2006). Women may also have a lower relative work centrality that categorizes work as less important than other major life areas such as family, leisure,

community, and religion (Sharabi & Harpaz, 2010). Some research on women's work ethic or work values may be flawed due to the lack of clarity on what type of work the study references. Women that hold onto to traditional gender roles may have a very strong work ethic but focus their attention on work at home rather than paid work (Stam et al., 2014).

Part of the differences in hours worked can be attributed to differences in work values held by women and men. One basic work value description relies on a two-category system. Gahan and Abeysekera (2009) stated that work values can be classified as intrinsic or extrinsic work values. Other researchers found that the four basic work values were accomplishment, contribution, power and authority, and monetary (Ueda & Ohzono, 2013). A study based on these four work values found that males valued accomplishment, contribution, and power and authority more than females (Ueda & Ohzono, 2013). These findings agreed with the previous research of Croson and Gneezy (2009). However, Ueda and Ohzono (2013) found that females valued monetary rewards more than males. This finding contradicted the previous research of Hirshi (2008). One potential explanation for the increased value of monetary rewards to women could be the fact that many women work solely to provide extra financial benefit to their family. Men, on the other hand, have more commitment to their organization and the intrinsic rewards that come with that commitment.

Several studies have been conducted that attempted to compare the work ethic among male and female workers. Furnham and Muhiudeen (1984) and Petty and Hill (1994) both found that women have higher work ethic scores than men. However, neither of these studies used a multidimensional approach to work ethic. Meriac, Poling, and Woehr (2009) conducted a study using the MWEP (Miller et al., 2001) on almost 2,000 subjects from both industrial and university student samples. That study found that males had higher mean scores on all seven

dimensions, but only the differences in self-reliance, morality/ethics, leisure, centrality of work, and wasted time were significant. However, regardless of the significant difference, they were still well below the small effect size associated with work ethic differences. Due to the low effect, the findings provide little practical value. However, the multidimensional approach found contrasting results to the majority of the previous research on work ethic differences in men and women. The authors suggested that future research using the MWEP assessment be conducted on other subgroups of interest. This study used the aforementioned assessment to measure the differences in work ethic among high school athletes and non-athletes as well as athletes based on gender.

While there is extensive research on the impact participation in high school or post-secondary athletics has on students' lives, there is no research that examines its relationship to work ethic. This study attempted to determine how much of or if any relationship exists. This will provide educators and administrators a deeper base of knowledge as to what will prepare or impact our students' ability to succeed in the post-education work place.

CHAPTER THREE: METHODS

Design

This research followed a causal comparative design to compare mean scores on the Multidimensional Work Ethic Profile (MWEP) among male and female high school varsity athletes, sub-varsity only athletes, and non-athletes. The causal comparative design is used to best explore possible cause and effect relationships (Glatthorn & Joyner, 2005). This research attempted to establish a causal relationship between athletic participation and development of a strong work ethic. Since the experimenter could not manipulate the independent variable (athletic participation), a true experimental design could not be used (Gall, Gall, & Borg, 2007). The independent variables were (a) the status of students participating in a sport and what level they participated at and (b) gender. Students were identified as a varsity athlete by their participation in and completion of at least one varsity-level competition sport season prior to taking the survey. Sub-varsity only athletes were identified as students participating in athletics, but only at the sub-varsity level. Non-athlete students were identified as students in their 11th- or 12th-grade year who had never participated in a varsity or sub-varsity sport. The dependent variable was work ethic, as measured by the MWEP. Work ethic is defined as a composite score related to seven subscales: (a) self-reliance, (b) morality/ethics, (c) leisure, (d) hard work, (e) centrality of work, (f) wasted time, and (g) delayed gratification (Miller et al., 2001).

Research Questions

The guiding research questions for this study were as follows:

RQ1: What is the impact of athletic participation on work ethic?

RQ2: What is the impact of gender on work ethic?

RQ3: Is there an interaction between athletic participation and gender as it relates to work ethic among high school students?

Null Hypotheses

Null hypotheses for this study were as follows:

$H_0$1: There is no significant difference among the work ethic scores of high school students between those who identified themselves as athletes who participated in varsity athletics, those who participated in only sub-varsity athletics, and those who did not participate in athletics at any level.

$H_0$2: There is no significant difference between the work ethic scores of male and female high school students.

$H_0$3: There is no significant interaction among the work ethic scores of male and female high school students between those who identified themselves as athletes who participated in varsity athletics, those who participated in only sub-varsity athletics, and those who did not participate in athletics at any level.

Participants and Setting

The research was conducted at a single high school in northwestern South Carolina. The high school is based in the city of Greenwood, which is the county seat of Greenwood County. The city of Greenwood has a population of just over 20,000, and the county is home to approximately 70,000 citizens. Greenwood County is home to three different school districts, but the chosen district is by far the largest of the three. The chosen school district and especially the chosen school are known for offering quality academic and athletic programs. The school offers varsity and sub-varsity programs in football, volleyball, cross country, swimming, golf, tennis, basketball, wrestling, baseball, softball, soccer, cheerleading, and track and field. The

district serves over 9,000 students and operates 14 schools, including two high schools. The district as a whole has an ethnicity breakdown of 42% African American, 43% White, 13% Hispanic, and 2% other. Overall, the district serves a population with a poverty index of 74.9%. The high school chosen has an enrollment of 906 students, and the poverty index is 69.2%. The ethnicity breakdown of the school is 54% White, 38% African American, 7% Hispanic and 1% other.

The convenience sample for the study was taken from all 11th- and 12th-grade students. Students completed the surveys during an already scheduled grade-level assembly. At the recommendation of the principal, this time slot best served the student body and provided no additional disruption to the school. A minimum of 63 participants in each group by gender and by athletic participation was needed to achieve a statistical power of 0.7 at the 0.05 level for medium-effect size, meaning that a total sample size greater than 126 participants was required (Gall et al., 2007).

The total sample consisted of 453 students—232 males and 221 females. Two hundred and twenty-eight of the students were in their 11th-grade year, while 225 students were in their 12th-grade year. The sample consisted of 244 White/Caucasian students, 170 Black/African American students, 29 Hispanic students, and 10 students of other ethnicities. From this sample, a total of 382 students turned in surveys. This survey was designed to capture the capture the self-identification of gender. Of these 382 completed surveys, 37 were discarded for reasons such as failure to identify gender or athletic participation or for only partially completing the survey. In total, there were 345 completed surveys with accurate gender and athletic participation identifications. One hundred and thirty-nine students identified themselves as not having participated in any interscholastic athletics, 87 participated in interscholastic athletics but

only at a sub-varsity level, and 119 students participated in interscholastic varsity athletics. The gender of the students and the responses regarding the levels of participation divided the respondents into the six groups used in the study.

Instrumentation

This study used the Multidimensional Work Ethic Profile (MWEP), which is a survey developed by Miller et al. (2001). The purpose of this instrument was to measure a person's work ethic. See Appendix G for the complete instrument. Miller et al. noted several deficiencies in the literature regarding the measurement of work ethic. Despite the considerable amount of research pointing to the multidimensionality of work ethic, most measurements used a unidimensional or universal work ethic score. The second concern of Miller et al. was that across the literature, measures seemed to tap different components of work ethic and not the construct in its entirety. Third, Miller et al. were concerned about the relevance of the current measurements as applied to the current generation. For example, several questions were gender biased and not applicable to the diverse workforce of today's society.

Miller et al. (2001) set out to develop a new measure of work ethic and conduct initial studies of its reliability and validity. There were several goals of the project. First, Miller et al. wanted to develop a measurement that reliably assessed each of the components of work ethic reported in the literature. Second, they wanted to assess how much each dimension demonstrated convergent and discriminant validity with measures of other constructs. Third, the authors wanted to measure the relationship between each component of work ethic. Last, they aimed to provide evidence of initial validity. To accomplish this goal, they conducted six studies that were published along with the measurement scales. The first study attempted to replicate previous research that demonstrates the multidimensionality of work ethic. Study 2 focused on

the construction and initial evaluation of the MWEP. The third study examined the relationships between the subscales as well as validity. The fourth and fifth study examined the generalizability of the MWEP across student, non-student, and organizational samples. The last study focused on the criterion-related validity of the subscales. Reliability estimates for the instrument using a coefficient α ranged from 0.57 to 0.89 for all seven subscales across four different samples.

Other research has been conducted using the MWEP. Woehr et al. (2007) examined the measurement equivalence of the construct across three distinct cultures in Mexico, Korea, and the United States. Meriac et al. (2010) examined differences across generational cohorts such as Millennials, Generation Xers, and Baby Boomers. Another study conducted by Van Ness et al. (2010) measured the difference in workforce professionals and college students.

In addition to an overall score of work ethic, the survey also focused on seven components of work ethic. The individual subscales of worth ethic measured were (a) self-reliance, (b) morality/ethics, (c) leisure, (d) hard work, (e) centrality of work, (f) wasted time, and (g) delay of gratification (Miller et al., 2001). The self-reliance scale measured one's desire to strive for independence. The morality/ethics subscale examined the belief that one is here in a just and moral existence. Beliefs in pro-leisure attitudes and the importance of non-work activities were measured in the leisure subscale. One's belief in the virtues of hard work was measured in the hard work subscale, while the centrality of work subscale measured a person's value of the importance of work for work's sake. The wasted time subscale examined a worker's attitudes and beliefs toward active and productive use of time. The last subscale, delay of gratification, looked at one's ability to orient toward the future and the importance of the postponement of rewards (Miller et al., 2001).

The survey itself was a 5-point Likert scale, with 1 translating to *strongly disagree* and 5 translating to *strongly agree*. Each dimension was scored as the mean item response multiplied by a factor of 10. Items 16, 48, and 57 of the morality/ethics dimension and all the items that fall into the leisure category were reverse scored when used to construct a composite score. Each subscale was then used as an individual measurement or combined to form a composite work ethic score (Miller et al., 2001). There were a total of 65 questions on the entire measurement. The categories of self-reliance, morality/ethics, leisure, hard work, and centrality of work all contain 10 questions each, while the categories of wasted time and delay of gratification contained eight and seven questions, respectively. The composite score ranged from a minimum of 65, which represents a person with very low work ethic, to a score of 325, which would represent a person with the highest work ethic. All of the constructs could be measured individually, but in order to construct a composite score, the leisure scale was reverse scored. There were also three questions in the morality/ethics dimension that require reverse scoring.

The research itself was conducted using the research version of the survey as provided by Miller et al. (2001). This version is included in Appendix G. Permission to use the survey is also included in Appendix A. The survey was given to participants, along with a pencil as needed, and the group was given approximately 45 minutes to complete the survey.

Procedures

After gaining Institutional Review Board (IRB) approval, the researcher contacted the principal of the school and provided information on the researcher's needs and procedures. The researcher sent the principal copies of the survey, instructions, and procedures. After determining that the previously scheduled grade-level assembly would provide the least disruption to the school, an agreement was made to issue the survey at the conclusion of each

assembly. The week prior to the assemblies, the school issued research recruitment letters and consent forms to all 11th- and 12th-grade students through a previously scheduled homeroom period. Students and parents had the option of opting out of the research or simply not completing the survey when issued. Of the 453 11th- and 12th-grade students, no student requested prior permission to be excluded, but only 382 surveys were returned.

The scheduled assembly consisted of information on the availability of school apparel and class rings as well as other administrative presentations. At the conclusion of these presentations, the grade-level assistant principal issued the surveys to the students in attendance and read the instructions provided by the researcher. At the conclusion of the time allocated, each student brought the surveys to the administrator, and they were collected into a large envelope. The envelope stayed with the administrator until the process was repeated at the next assembly, which immediately followed the first one. Once all surveys were collected, the envelope was sealed and stored in a locked file cabinet in the administrator's office. The researcher then scheduled a time to travel to the school to collect the surveys.

Once the surveys were collected, the researcher divided them into the six groups based on gender and athletic participation. Each survey was also examined to determine if the gender was appropriately marked, if the athletic participation was clearly indicated, and if the survey was fully completed. After examining the surveys, the researcher found 37 surveys that were not able to be scored or grouped appropriately. These surveys were kept separate from the others.

The researcher then proceeded to input the survey results into a researcher-created spreadsheet that organized and summarized the data in Microsoft Excel. Since thirteen of the questions needed to be reverse scored, a simple sum could not be used. The spreadsheet used a simple formula that changed the respondent's answer on reverse-scored questions appropriately.

This spreadsheet also calculated a score for each respondent on each of the seven subscales in the MWEP, as well as a composite work ethic score. Each group had a tab on the spreadsheet to separate the data from the other groups. Once all surveys were entered into the spreadsheet, the composite work ethic profile score was entered into SPSS statistical software along with the corresponding gender and athletic participation data.

Data Analysis

In order to measure the differences among male and female varsity athletes, sub-varsity athletes, and non-athletes on the MWEP, a two-way analysis of variance (ANOVA) was used. A two-way ANOVA is best to use when the study has two independent variables and one dependent variable (Gall et al., 2007). This ANOVA was 2 x 3 in design. Each participant's composite work ethic profile score was the dependent variable, while their classification regarding gender and athletic participation were the independent variables. Data screening was conducted for data inconsistencies and outliers for work ethic scores. A Box and Whisker plot was used to identify and eliminate extreme outliers. Assumption testing included the Kolmogorov-Smirnov test for normality since the sample size was greater than 50. Levene's Test of Equality of error variance was also used. All α levels were at the 0.01 level. Partial eta squared was used to determine effect size.

CHAPTER FOUR: FINDINGS

Research Questions

The guiding research questions for this study were as follows:

RQ1: What is the impact of athletic participation on work ethic?

RQ2: What is the impact of gender on work ethic?

RQ3: Is there an interaction between athletic participation and gender as it relates to work ethic among high school students?

Hypotheses

Null hypotheses for this study were as follows:

$H_0$1: There is no significant difference among the work ethic scores of high school students between those who identified themselves as athletes who participated in varsity athletics, those who participated in only sub-varsity athletics, and those who did not participate in athletics at any level.

$H_0$2: There is no significant difference between the work ethic scores of male and female high school students.

$H_0$3: There is no significant interaction among the work ethic scores of male and female high school students between those who identified themselves as athletes who participated in varsity athletics, those who participated in only sub-varsity athletics, and those who did not participate in athletics at any level.

Descriptive Statistics

The independent variables of this study were gender and athletic participation. The gender factor had two options, male and female, while the athletic participation factor had three possibilities: no athletic participation, participation at the sub-varsity (JV) level, or varsity

athletic participation. The descriptive statistics of the independent variables are presented in Table 1, Table 2, and Table 3.

Table 1

Descriptive Statistics for Multidimensional Work Ethic Profile (MWEP), Athletic Participation

Athletic Participation	*M*	*SD*	*N*
No Athletics	216.91	32.78	139
Sub-Varsity	237.86	18.81	87
Varsity	261.04	19.26	119
Total	237.41	31.78	345

Table 2

Descriptive Statistics for MWEP, Gender

Gender	*M*	*SD*	*N*
Male	234.26	30.33	178
Female	240.78	33.02	167
Total	237.41	31.78	345

Table 3

Descriptive Statistics for MWEP, Gender, Athletic Participation

Gender	Athletic Participation	*M*	*SD*	*N*
Male	No Athletics	209.00	24.39	71
	Sub-Varsity	241.15	21.51	46
	Varsity	258.46	16.91	61
	Total	234.26	30.33	178
Female	No Athletics	225.16	38.17	68
	Sub-Varsity	234.17	14.64	41
	Varsity	263.76	21.26	58
	Total	240.78	33.02	167

Results

Data Screening

The data were collected and then screened for errors and inconsistencies. Thirty-seven surveys were returned that could not be used. Eight were returned without proper identification of athletic participation or gender, but contained a completed survey. Without this information, these respondents could not be put into a group. Twenty-three surveys were not fully completed; therefore, a MWEP score could not be calculated. Six were returned without proper athletic or gender identification and the survey was incomplete. These 37 surveys were kept aside and were not entered into the data.

Box plots were used to identify any outliers. Several outliers were found throughout the data. However, the researcher did not find the outliers to be extreme enough to be removed and proceeded with the analysis. Figure 1 shows a box plot with outliers for MWEP scores by gender.

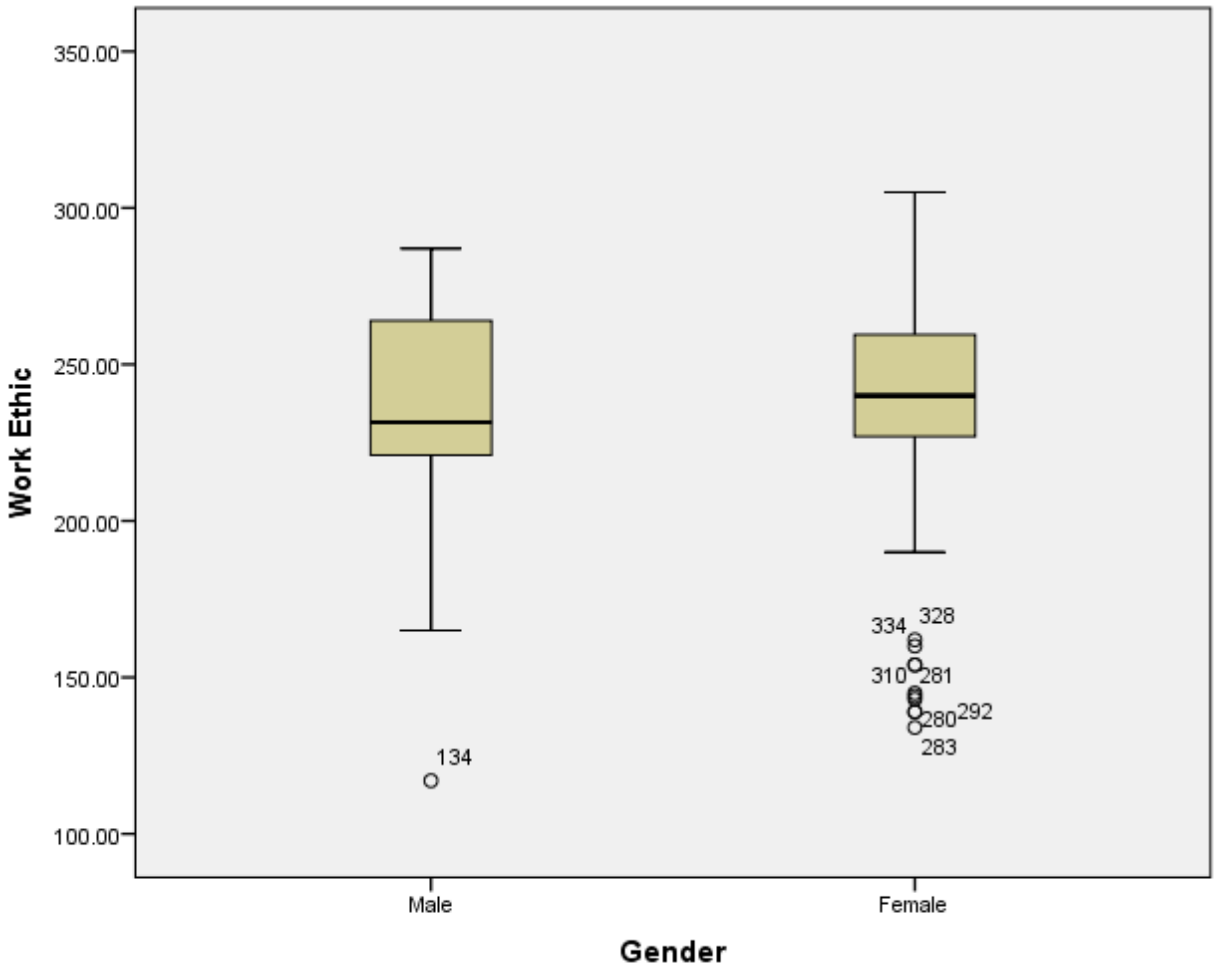

Figure 1. Box plot for MWEP scores by gender.

Figure 2 shows a box plot for MWEP scores as broken down by athletic participation.

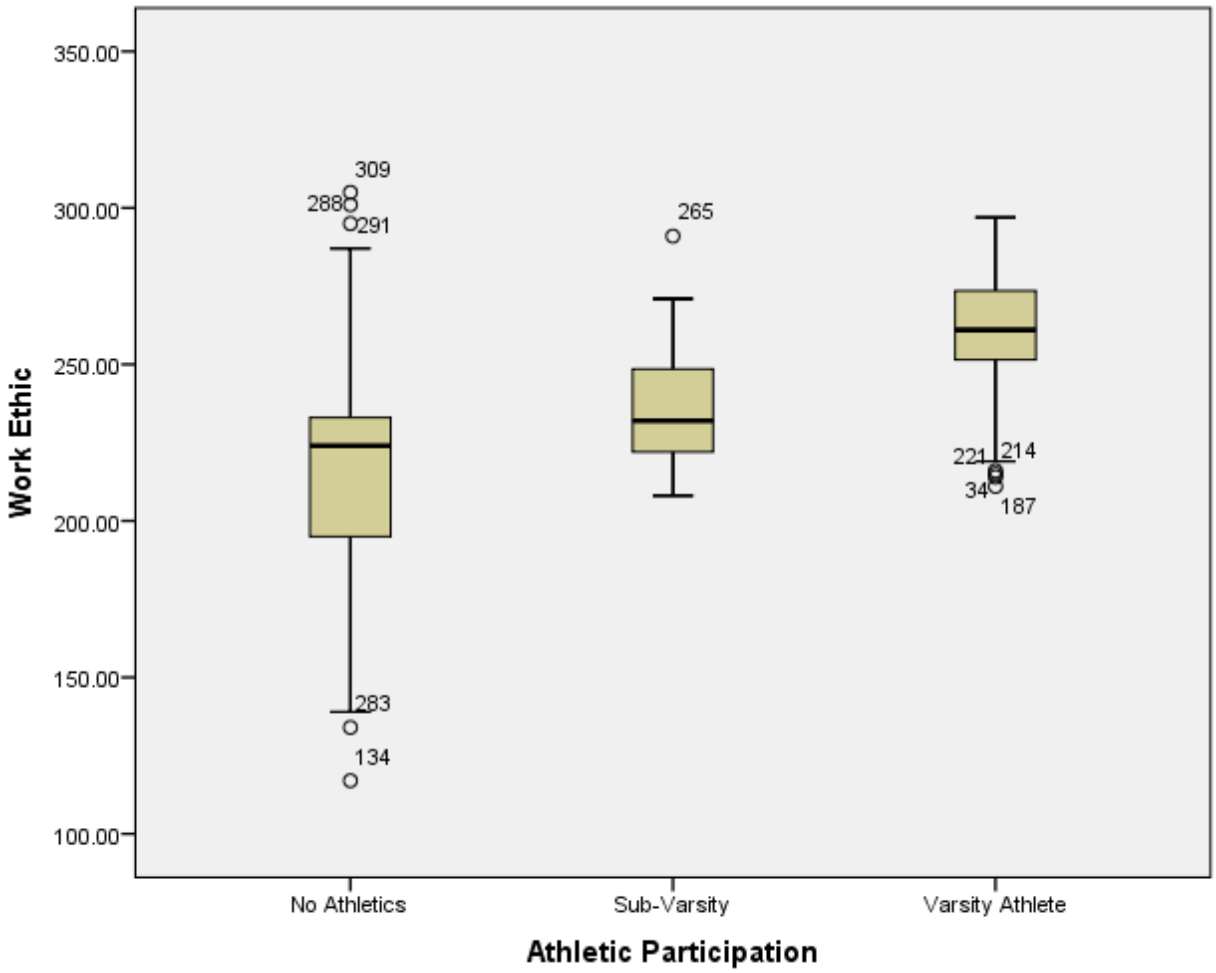

Figure 2. Box plot for MWEP scores by athletic participation.

Assumption Testing

Since a two-way ANOVA was used to analyze the data, it was necessary to test for two assumptions: normality and equal variance. To test for normality, histograms and Kolmogorov-Smirnov tests were conducted. Figure 3 and Figure 4 shows histograms for the male and female groups, respectively.

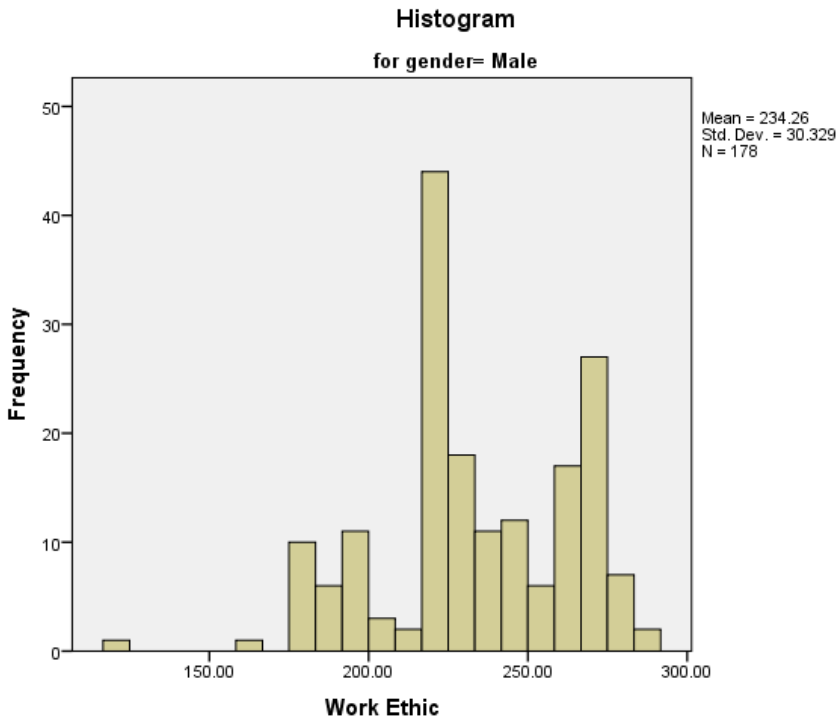

Figure 3. Histogram for male group.

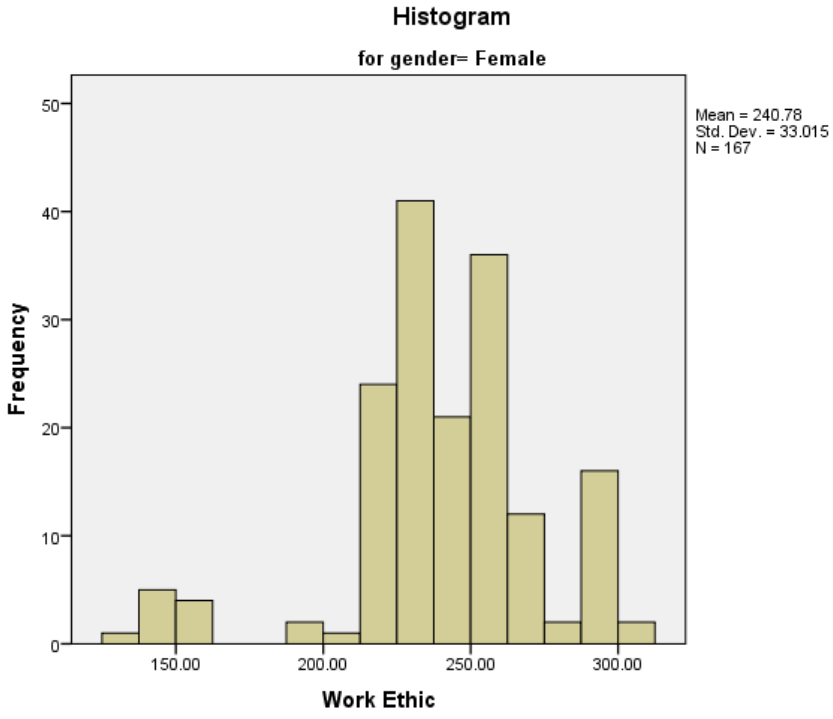

Figure 4. Histogram for female group.

Histograms were also used to test normality for the athletic participation variable. Figure 5 is a histogram for those students who did not participate in athletics, while Figure 6 shows a histogram for those students who only competed in sub-varsity athletics. Figure 7 shows the histogram for the group who competed in varsity athletics.

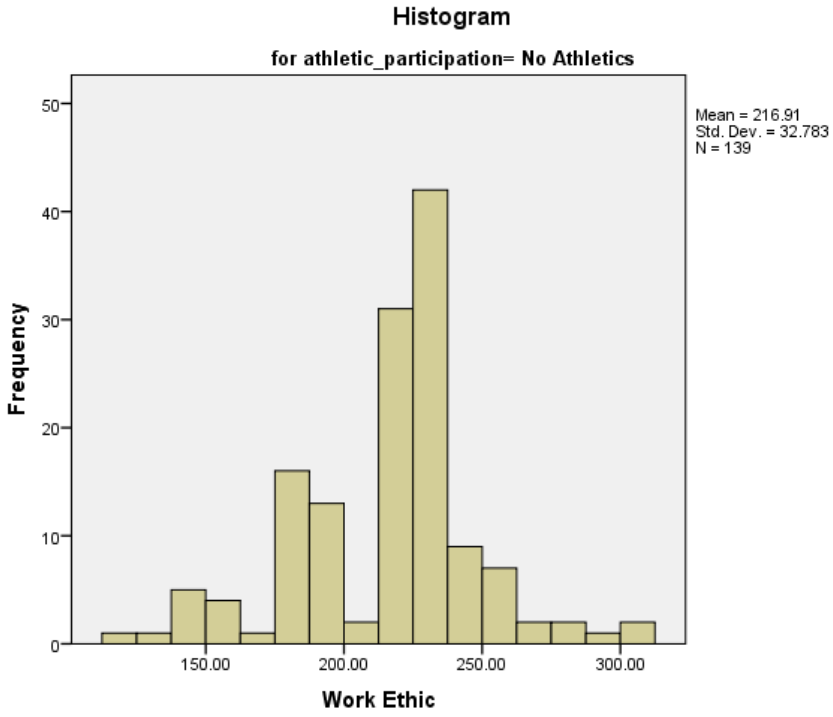

Figure 5. Histogram for non-athletic group.

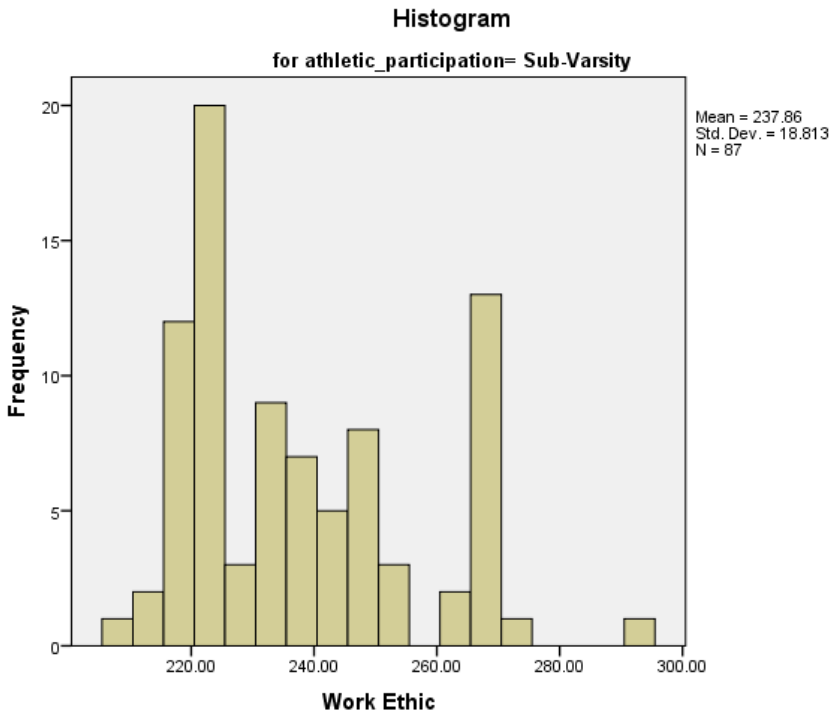

Figure 6. Histogram for sub-varsity athletics group.

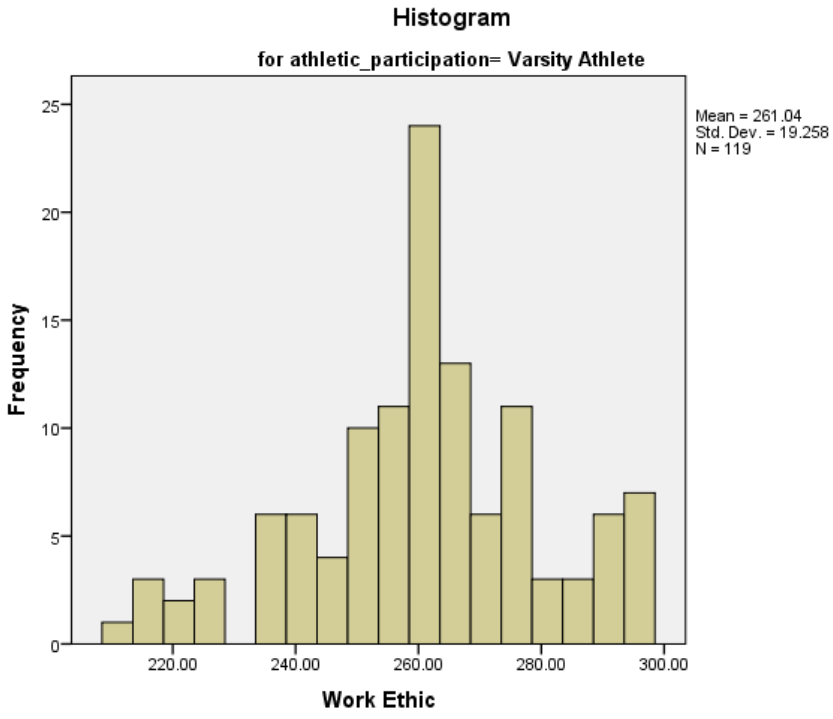

Figure 7. Histogram for varsity athletics group.

Kolmogorov-Smirnov results were checked for $p > .05$ in order to determine significance and normal distribution. The histograms and the Kolmogorov-Smirnov test determined that only the varsity athlete group was normally distributed. As a result, the data fail the assumption of normality. To compensate for the data not meeting either the assumptions of normality a more stringent level of significance ($p < .01$) was used. Kolmogorov-Smirnov results are listed in Table 4.

Table 4

Kolmogorov-Smirnov Test for Normality

Variable	Kolmogorov-Smirnov Significance Level
Male	.000
Female	.000
No Athletics	.000
Sub-Varsity Athletics	.000
Varsity Athletics	.188

Levene's Test for Equality of Variance was also used to determine if the data satisfied the assumption of equality of variance. For variance to be assumed, the results ($p > .05$) should be significant. The Levene's test result was determined to be less than .001, so the data did not meet the assumption of equal variance. To compensate for the data not meeting either the assumptions of equal variance, a more stringent level of significance ($p < .01$) was used.

Null Hypothesis One

The first null hypothesis stated the following: There is no significant difference among the work ethic scores of high school students between those who identified themselves as athletes who participated in varsity athletics, those who participated in only sub-varsity athletics, and those who did not participate in athletics at any level.

This hypothesis was analyzed by using a two-way ANOVA. The independent variable, or factor, was the level of athletic participation. On the dependent variable *MWEP*, *r*espondents' mean scores for those who competed in high school varsity athletics were (M = 261.04, SD = 19.26), for those who competed in high school athletics but not at the varsity level were (M = 237.86, SD = 18.81), and for those who never competed in high school athletics were (M = 216.91, SD = 32.78). In order to reject the null hypothesis, $p < .01$ was required. The results of the first null hypothesis were $F(2, 339) = 99.53$; $p < .001$, partial $\acute{\eta}^2 = .37$, and the observed power was 1.00. Based on these results, the first null hypothesis was rejected.

Post hoc analysis was conducted using the test of least significance difference (LSD), and the results suggest a significant difference between all three groups. The results are shown in Table 5.

Table 5

Least Significant Difference

Athletic Participation	Athletic Participation	Mean Difference	Std. Error	*p*
No Athletics	Sub-Varsity	-20.58	3.42	.000
	Varsity	-44.03	3.12	.000
Sub-Varsity	No Athletics	20.58	3.42	.000
	Varsity	-23.48	3.53	.000
Varsity	No Athletics	44.03	3.12	.000
	Sub-Varsity	23.48	3.53	.000

Null Hypothesis Two

The second null hypothesis stated the following: There is no significant difference between the work ethic scores of male and female high school students.

This hypothesis was analyzed by using a two-way ANOVA. The independent variable, or factor, was the gender of the students. The study relied on the students' identification of their own gender, which had two groups. On the dependent variable *MWEP*, males had a score of (M = 234.26, SD = 30.33), and females had a score of (M = 240.78, SD = 33.02). In order to reject the null hypothesis, $p < .01$ was required. The results of the first null hypothesis were $F(1, 339) = 99.53$; $p = .079$, partial $\acute{\eta}^2 = .01$, and the observed power was .42. Based on the non-significant results at the $p < 0.01$ standard, the researcher failed to reject the second null hypothesis.

Null Hypothesis Three

The third null hypothesis stated the following: There is no significant interaction among the work ethic scores of male and female high school students between those who identified themselves as athletes who participated in varsity athletics, those who participated in only sub-varsity athletics, and those who did not participate in athletics at any level.

This hypothesis was analyzed by using a two-way ANOVA. This null hypothesis examined the interaction between the two independent variables, level of athletic participation and gender, on the dependent variable, MWEP composite scores. In order to reject the null hypothesis, $p < .01$ was required. The results of the first null hypothesis were $F(2, 339) = 5.79$; $p = .003$, partial $\acute{\eta}^2 = .03$, and the observed power was .87. Based on these results, the third null hypothesis was rejected. The interaction appeared to be between males and females at the sub-varsity level. A contingency table is shown in Table 6.

Table 6

Contingency Table

Athletic Participation	Male	Female	Total
No Athletics	209.00	225.16	216.91
Sub-Varsity	241.15	234.17	237.86
Varsity	258.46	263.76	261.04
Total	234.26	240.41	

The graph in Figure 8 below shows the interaction between males and females on the sub-varsity level. Females performed lower (M = 234.17, SD = 14.64) than males (M = 241.15, SD = 21.51) in this group only.

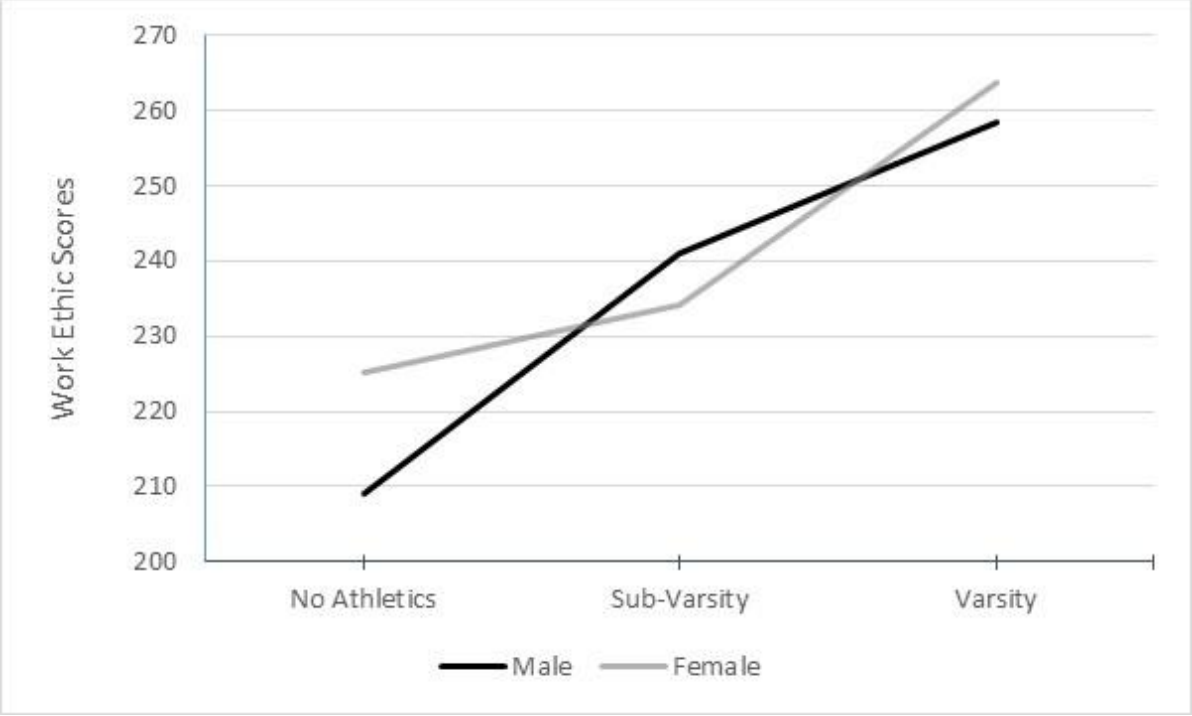

Figure 8. Interaction between gender and work ethic.

CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Discussion

The purpose of this causal comparative study was to determine if any differences exist in work ethic, as measured by the Multidimensional Work Ethic Profile (MWEP), among male and female students who either participated in no high school athletics, participated in sub-varsity teams only, or participated in varsity high school athletics.

Null Hypothesis One

The first null hypothesis aimed at testing the differences in work ethic scores based on a student's level of athletic participation. A two-way ANOVA was conducted, and significant results were found. These results led the researcher to reject the null hypothesis. The results found a significant difference ($p < .001$) in work ethic scores between those students who did not participate in high school athletics, those who participated in sub-varsity sports only, and those who completed in varsity athletics.

Further testing using the test of *LSD* looked for significant differences among all three individual groups using $p < .05$ as the standard of significance. The results of the test found a significant difference between the non-athletic and sub-varsity group ($p = .000$), the sub-varsity and varsity group ($p = .000$), and between the non-athletic and varsity athletic group ($p = .000$). According to the *LSD* test, the largest difference of means was between the varsity and non-athletic group ($M_{va} - M_{na} = 44.03$). While the differences between the non-athletic and sub-varsity ($M_{na} - M_{sv} = 20.58$) groups and the difference between sub-varsity and varsity ($M_{sv} - M_{vs} = 23.48$) groups were significant, they were not as large as the difference between the varsity and non-athletic group.

While no particular study in the literature directly examined the differences of work ethic among athletes and non-athletes, research does provide data to possibly explain the difference. One of the dimensions tested in the MWEP was that of wasted time. Jianzhong (2009) stated that athletes learn how to manage their time better as they cope with the constraints of balancing commitments to both athletics and academics. Ghahari (2009) also concluded that students with extra free time on their hands resort to procrastination or participation in various leisure activities such as watching television or sleeping. Leisure is also a component tested to determine the composite work ethic score. Another dimension of the MWEP is morality and ethics. Participation in athletics leads to discipline, which includes but is not limited to self-control, character, order, and efficiency (Baribeau, 2006).

These findings only support the difference in overall work ethic scores based on the seven dimensions that the MWEP used. The effect that athletic participation has on individual dimensions jointly affects the overall composite work ethic profile.

Null Hypothesis Two

Null hypothesis two aimed at examining the differences in composite work ethic profile scores between male and female students. The results of the two-way ANOVA did not produce significant results ($p = .079$). Given these results, the researcher concluded that there was no significant difference of work ethic scores by gender.

While some studies have found differences in work ethic between genders (Furnham & Muhiudeen, 1984), these studies did not test the multidimensionality aspect of work ethic. In other studies that used the same MWEP used in this study, there were no differences found between men and women as pertains to work ethic (Meriac et al., 2009). Findings of this study

are similar in that no significant difference was found between the male and female students who responded.

Null Hypothesis Three

The third null hypothesis looked for an interaction between athletic participation and gender as measured by the composite work ethic profile scores on the MWEP.

Given the results of the two-way ANOVA (p = .003), the null hypothesis was rejected, and an interaction was found. When examined more closely, the interaction appeared to be at the sub-varsity level. Females scored higher than males on the MWEP in both the non-athletic group and the varsity group, but lower in the sub-varsity group. The drop in mean work ethic profiles for female students participating in sub-varsity athletics is difficult to explain. Kuga and Douctre (1994) found that female students participating in athletics in the 11th and 12th grades experienced more benefits than those who participated in the ninth and 10th grades. While grade level does not always equal level of athletic participation, the natural split of varsity and sub-varsity participation lies between the 10th- and 11th-grade years.

Conclusions

The primary conclusion of this study is that there is a significant difference in work ethic scores between students as they participate in athletics at various levels. The study also found that there is no significant difference between work ethic scores across gender, and there is an interaction between gender and level of participation. While the nature of this study does not allow for a conclusion of causation, it does state that the differences do exist.

Not only did the study find that students differed among work ethic scores depending on their level of athletic participation, but this difference grew as the students participated in higher competition. While the study viewed three different groups of athletic participation—no

athletics, sub-varsity only, and varsity athletics—as three distinct groups unrelated to each other; it could also be viewed as the varsity athletic group being more committed to or involved in athletics than the sub-varsity group. There are several reasons, such as physical talent, physical maturity, variable interest, and the like, that can cause a student to cease athletics after his or her sub-varsity experience. However, one could also argue that only those who had a higher work ethic could persevere and withstand the increased demands of varsity athletics.

Yeung (2015) also differentiated between levels of athletic involvement as he studied its effect on academic achievement. While his study examined non-athletes, athletes, and athletic leaders instead of varsity and sub-varsity athletes, it did differentiate between two different types of athletes. Yeung's athletic leaders differ from standard athletes in many of the same ways that a varsity athlete would differ from a sub-varsity athlete. These differences include more time devoted to athletics, a higher commitment, additional years of involvement, and so forth. This study paralleled Yeung's in that those athletes with a higher level of involvement showed a higher score on the desired measures. In Yeung's case, the variable was academic achievement, and in this study, the measure was work ethic.

This study also adds to the extensive research that outlines the positive benefits derived from participation in high school athletics. While studies have linked high school athletics to lower delinquent behavior (Segrave & Hastad, 1984), higher GPAs (White, 2005), discipline (Grode, 2009), and motivation (Abdelfattah, 2010), this is the first to measure a quantitative work ethic score. However, the results of this study are consistent with other studies that predict a positive correlation between athletic participation and success in the work place. Rosewater (2009) determined that high school athletics is a predictor of success in future labor markets.

While that study did not base this prediction on a correlation to work ethic, it could provide a simple reason as to why athletes do perform better.

The lack of significant difference work ethic scores between males and females is very consistent with previous research. Meriac et al. (2009) also found no significant statistical difference between composite work ethic scores among men and women. This study found the same to be true, although the ages for the subjects of this study were much younger.

The study also found an interaction between athletic participation and gender as it relates to work ethic. The mean male work ethic score was lower for both those students who did not participate in athletics and those who participated in varsity athletics than their female counterparts. However, males scored higher than females at the sub-varsity level. This interaction could be explained by the difference in number of sub-varsity programs offered for female sports. Many female sports programs do not have enough participants to field a sub-varsity and a varsity team, so only a varsity team gets filled. A similar male program may have enough participants to field two teams. This would then push female athletes who normally would only play sub-varsity into the varsity category.

Implications

According to Neely and Holt (2014), Positive Youth Development (PYD) is an umbrella term that is used to represent the many studies that examine the benefits of youth sport participation. This body of research focuses on a wide range of skills that will assist youth as they develop into successful members of future society. One such skill that needs to be developed is that of work ethic. Research has found that today's students, the future workforce, do not see the relationship between effort and success (Stevens & Miretzky, 2012). However, employers view work ethic as one of the top traits looked for in employment (Bravo, Won, &

Shonk, 2012). Timco (2010) also suggested that a better understanding of physical activity, such as athletic participation and its relationship with work ethic, is needed. Other studies have stated that future research is still needed to establish whether sports make a significant contribution to the development of young people.

This study adds to the literature that explores the impact of athletic participation on PYD. Since a significant difference was found between students who participate in athletics and those who do not, and that the difference grows larger as participation increases, this study helps fill the gaps that exist in research. This study suggests that students who participate in athletics, especially varsity athletics, have a higher work ethic than those who do not. This increased work ethic adds another dimension to the possible benefits seen from participation in high school athletics

School districts face limited budgets and difficult choices of where to devote resources; this study can provide evidence of the positive impact that athletics have on our students. Roth (2014) stated that the attitude toward work in developed countries is changing, and not for the better. As a result of this and future research on the subject, school districts and states can recognize the benefit that athletics has on the development of work ethic and devote appropriate resources to nurture this relationship.

There can also be an impact on how the culture of a school's athletic program can affect the development of work ethic. Schools with strong leaders and coaches may focus more on teaching of non-athletic specific life skills that can impact how students learn work ethic through sports. Schools with weak coaches or leaders may not devote the time and effort into teaching those skills and their programs could produce lower work ethic scores.

Limitations

Several limitations were identified in this study. The first limitation was that the convenience sample was only taken from one high school in western South Carolina. The culture and characteristics of this high school could have had an impact on the data collected. Sampling from various high schools would have provided for a deeper pool of respondents.

Another limitation was the length of the assessment. The assessment consisted of 65 questions that provide seven to 10 items across each subscale of work ethic. This study found many surveys where it was obvious that students failed to complete the survey or became tired and responded with the same answer for the length of the study. Meriac, Woehr, Gorman, and Thomas (2013) discussed the length of the MWEP as a drawback and cited numerous requests to the developers for a short-form version. Stanton, Sinar, Balzer, and Smith (2002) found that longer tests tend to have more missing data and refusal rates than shorter tests. Numerous examples of missing data and refusals were present in this study. As a result, the sample was much smaller than it could have been.

Another limitation was the use of questioning based on work and job settings with high school students. Many of the questions in the MWEP survey center on the respondent being in a work or job setting. This study used high school 11th- and 12th-grade students, many of whom have not worked in a job setting. Even though the concept of work ethic should not be foreign to a high school student, the instructions were clear to use schoolwork as a substitute setting for work. However, even with the instructions read as is, it was evident that lack of true work experience was a limitation to the validity of the students' answers. The instrument was not tested for validity and reliability on the population sampled.

Recommendations for Future Research

While this study found a significant difference in work ethic scores among three different levels of athletic participation, it is still limited in scope. This study only used one high school as its sample. The nature and culture of this school and its commitment to athletics could have had a profound impact on the outcome. The personalities, talents, and areas of focus of the school's particular coaches could also have had an impact. The study could also have benefited from a broader geographical area. Multiple schools from various parts of the state or country would have provided a more thorough and deeper sample.

The MWEP also used seven subscales of work ethic to calculate a composite work ethic score. These seven subscales were hard work, wasted time, leisure, morality and ethics, centrality of work, delayed gratification, and self-reliance. Individual subscale scores could also have been calculated to add more detail and scope to the study. It is quite possible that while no difference in overall work ethic scores was found between genders, some subscales could have been significantly different. A more detailed study could pinpoint areas that are most affected by gender or athletic participation.

Another area of focus could be an attempt to determine if athletic participation leads to a development of work ethic or whether students with inherently better work ethic participate in sports more. To determine more of a causal relationship, students' work ethic would have to be scored prior to and after participation in athletics. While a random assignment of treatment would not be possible, it would be able to determine how much students' work ethic changed as a result of their participation in athletics.

This study was quantitative in nature, and any differences in environment could not be explored. Additional research of a qualitative nature could prove beneficial since environmental factors could be considered.

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APPENDIX A: PERMISSION TO USE MWEP

>>> "[redacted]> 2/1/2013 1:20 PM >>>
[redacted],
Thanks for your request to use the MWEP. We designed the measure to be freely available for research purpose, so you may certainly have permission to use the measure. I've attached a few files with copies of the measures as well as some relevant articles that may be helpful. Good luck with your dissertation.

Sincerely,

[redacted]

[redacted]| Professor and Chair
Department of Management
[redacted]

On 2/1/13 1:12 PM, "[redacted]

>Dr. [redacted],
>
>I am a doctoral student at [redacted] University and am in the early stages
>of my dissertation. I want to study the differences in work ethic
>between high school student-athletes and non student-athletes. I would
>like to use the MWEP that you published in the Journal of Vocational
>Behavior in 2001. I will cite the article and credit the instrument to
>you and the other authors. May I have permission to use the survey as
>part of my dissertation process?
>
>Thank you,
>
>[redacted]

APPENDIX B: PERMISSION TO CONDUCT SURVEY

August 30, 2016

[redacted]
Athletic Director
[redacted]

Dear [redacted]

Your request to do research entitled A Comparison of Work Ethic Among High School Athletes and Non-Athletes is approved for [redacted]. It is my understanding that you will survey approximately 80 eleventh grade students, that the survey will be voluntary, and the participants will be presented with informed consent information prior to their participation in the research study.

I wish you the best as you pursue your degree.

Sincerely,

[redacted]

[redacted] Superintendent

APPENDIX C: IRB APPROVAL

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

9/1/2016

[redacted]
IRB Approval 2531.090116: A Comparison of Work Ethic among High School Athletes and Non-Athletes

Dear [redacted]

We are pleased to inform you that your study has been approved by the Liberty IRB. This approval is extended to you for one year from the date provided above with your protocol number. If data collection proceeds past one year, or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

[redacted]
Administrative Chair of Institutional Research
The Graduate School

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APPENDIX D: LETTER TO STUDENTS AND PARENTS

Date: September 1, 2016

Dear Student and/or Parent

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctorate in Education. The purpose of my research is to study the relationship between high school athletic participation and work ethic, and I am writing to invite you/your child to participate in my study.

The research intends to survey all eleventh and twelfth grade students and will take approximately 30 minutes to complete. You/Your child's participation will be completely anonymous and no personal nor identifying information will be collected. The survey date will be September 7, 2016.

The survey will be administered during an advisory period at school. No other action is required to participate. A consent document is provided for more information regarding the research. If you or your child do not wish to participate, you may either follow the instructions in the consent document, or your child can simply not complete the survey.

Sincerely,

APPENDIX E: CONSENT FORM

CONSENT FORM

A Comparison of Work Ethic among High School Athletes and Non-Athletes

[redacted]

School of Education

Your student/you (students 18 or over) are invited to be in a research study of work ethic profiles as it relates to high school athletic participation. Your student/you were selected as a possible participant because your student/you have reached the eleventh grade and have had the opportunity to participate in athletics if so desired. I ask that you read this form and ask any questions you may have before agreeing to allow your student to be/be in the study.

[redacted] doctoral candidate in the School of Education at [redacted] University, is conducting this study.

Background Information: The purpose of this study is explore the relationship between participation in high school athletics and work ethic

Procedures: If you do not agree to allow your student to be/be in this study, I would ask you to do the following things:

1. (Parents) Contact [redacted] at [redacted] to decline participation or (students) simply do not accept the survey when presented.
2. To participate in the study, simply complete the survey when presented during advisory period.
3. The survey is completely anonymous and will take approximately 20-30 minutes to complete.

Risks and Benefits of being in the Study: There are no risks involved in this study.

The benefits to participation are additions to the research base that examines possible impacts of high school athletic participation

Compensation: There will be no compensation for participating in this study.

Confidentiality: The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. The survey does not include any information that can identify the subject. Research records will be stored securely and only the researcher will have access to the records. They will be destroyed after three years.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to allow your student to participate/participate will not affect his or her/your current or future relations with [redacted]. If you decide to allow your student to participate/participate, he or she/you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions: The researcher conducting this study is [redacted]. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at [redacted]. You may also contact the researcher's faculty advisor, [redacted].

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, [redacted]

APPENDIX F: SURVEY INSTRUCTIONS

Teachers—Please read the following before students begin the survey.

This survey is completely voluntary and if you do not wish to complete the survey, please sit quietly until the class is complete. The questions listed are intended to measure one's beliefs and attitudes toward work and to create a work ethic profile for each student. Several questions are based on a job or work setting, however as a student, you can answer based on your school work as being your job or work environment.

1. Please mark the statement that best describes your participation in high school athletics.
2. Please indicate your gender.
3. Please circle your appropriate response to each question listed. You may begin.

When surveys are complete, please place all completed surveys in the envelope and seal it. Return to XXXXXXXX.

Thank you

APPENDIX G: MWEP

Multidimensional Work Ethic Profile

Please check the response that best describes your high school athletic participation:

I have never participated in high school athletics: _____

I have participated in high school athletics, but not at the varsity level: _____

I have participated in varsity athletics in high school: _____

Instructions: Rate the extent to which you agree with each of the following statements. Please circle your answers on this sheet and fill in the appropriate circles on the scan form.

Please indicate your gender: Male: _____ Female: _____	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. It is important to stay busy at work and not waste time.	1	2	3	4	5
2. I feel uneasy when there is little work for me to do.	1	2	3	4	5
3. If I want to buy something, I always wait until I can afford it.	1	2	3	4	5
4. I feel content when I have spent the day working.	1	2	3	4	5
5. Life would be more meaningful if we had more leisure time.	1	2	3	4	5
6. To be truly successful, a person should be self-reliant.	1	2	3	4	5
7. One should always take responsibility for one's actions.	1	2	3	4	5
8. I would prefer a job that allowed me to have more leisure time.	1	2	3	4	5
9. Time should not be wasted. It should be used efficiently.	1	2	3	4	5
10. Even if I were financially able, I would not stop working.	1	2	3	4	5
11. I get more fulfillment from items I had to wait for.	1	2	3	4	5
12. I schedule my day in advance to avoid wasting time.	1	2	3	4	5
13. A hard day's work is very fulfilling.	1	2	3	4	5
14. The more time I can spend in a leisure activity, the better I feel.	1	2	3	4	5
15. One should always do what is right and just.	1	2	3	4	5
16. I would take items from work if I felt I was not getting paid enough.	1	2	3	4	5
17. Nothing is impossible if you work hard enough.	1	2	3	4	5
18. The less time one spends working and the more leisure time one has, the better.	1	2	3	4	5
19. Things that you have to wait for are the most worthwhile.	1	2	3	4	5
20. Working hard is the key to being successful.	1	2	3	4	5
21. Self-reliance is the key to being successful.	1	2	3	4	5
22. If one works hard enough, one is likely to make a good life for oneself.	1	2	3	4	5
23. I constantly look for ways to productively use my time.	1	2	3	4	5
24. Hard work makes one a better person.	1	2	3	4	5
25. One should not pass judgment until one has heard all of the facts.	1	2	3	4	5
26. People would be better off if they depended on themselves.	1	2	3	4	5
27. Work takes too much of our time, leaving little time to relax.	1	2	3	4	5
28. One should live one's own life independent of others as much as possible.	1	2	3	4	5
29. A distant reward is usually more satisfying than an immediate one.	1	2	3	4	5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
30. It is very important for me to always be able to work.	1	2	3	4	5
31. More leisure time is good for people.	1	2	3	4	5
32. One must avoid dependence on other persons whenever possible.	1	2	3	4	5
33. Even if I inherited a great deal of money, I would continue to work somewhere.	1	2	3	4	5
34. I do not like having to depend on other people.	1	2	3	4	5
35. By working hard a person can overcome every obstacle that life presents.	1	2	3	4	5
36. I try to plan out my workday so as not to waste time.	1	2	3	4	5
37. You should never tell lies about other people.	1	2	3	4	5
38. Any problem can be overcome with hard work.	1	2	3	4	5
39. How a person spends their time is as important as how they spend their money.	1	2	3	4	5
40. Even if it were possible for me to retire, I would still continue to work.	1	2	3	4	5
41. Life without work would be very boring.	1	2	3	4	5
42. I prefer to save until I can afford something and not buy it on credit.	1	2	3	4	5
43. The world would be a better place if people spent more time relaxing.	1	2	3	4	5
44. I strive to be self-reliant.	1	2	3	4	5
45. If you work hard you will succeed.	1	2	3	4	5
46. The best things in life are those you have to wait for.	1	2	3	4	5
47. Anyone who is able and willing to work hard has a good chance of succeeding.	1	2	3	4	5
48. Stealing is all right as long as you don't get caught.	1	2	3	4	5
49. The job that provides the most leisure time is the job for me.	1	2	3	4	5
50. Having a great deal of independence from others is very important to me.	1	2	3	4	5
51. It is important to treat others as you would like to be treated.	1	2	3	4	5
52. I experience a sense of fulfillment from working.	1	2	3	4	5
53. A person should always do the best job possible.	1	2	3	4	5
54. It is never appropriate to take something that does not belong to you.	1	2	3	4	5
55. Only those who depend on themselves get ahead in life.	1	2	3	4	5
56. Wasting time is as bad as wasting money.	1	2	3	4	5
57. There are times when stealing is justified.	1	2	3	4	5
58. People should have more leisure time to spend in relaxation.	1	2	3	4	5
59. It is important to control one's destiny by not being dependent on others.	1	2	3	4	5
60. By simply working hard enough, one can achieve one's goals.	1	2	3	4	5
61. People should be fair in their dealings with others.	1	2	3	4	5
62. The only way to get anything worthwhile is to save for it.	1	2	3	4	5
63. Leisure time activities are more interesting than work.	1	2	3	4	5
64. A hard day's work provides a sense of accomplishment.	1	2	3	4	5
65. A distaste for hard work usually reflects a weakness of character.	1	2	3	4	5